

Some important definition of ECO401

What is Economics?

“Economics is the study of how we the people engage ourselves in production, distribution and consumption of goods and services in a society.”

Normative economics:

Normative economics refers to value judgments, e.g. what “ought” to be the goals, of public policy. Normative statements cannot be tested.

Positive Economics:

The analysis of facts and behavior in an economy OR “the way things are.”

Goods

Are the things which are produced to be sold.

Services

Involve doing something for the customers but not producing goods.

Factors of production:

Factors of production are inputs into the production process. The factors of production are:

- **Land** includes the land used for agriculture or industrial purposes as well as Natural resources taken from above or below the soil
- **Capital** consists of durable producer goods (machines, plants etc.) that are in Turn used for production of other goods
- **Labor** consists of the manpower used in the process of production.
- **Entrepreneurship** includes the managerial abilities that a person brings to the Organization Entrepreneurs can be owners or managers of firms.

Scarcity:

Shortage of resources because economic resources are unable to supply all the goods demanded.

Rationing

A process by which we limit the supply or amount of some economic factor which is scarcely available

Economic Systems:

A free market/capitalist economy is a system in which the questions about what to produce, how to produce and for whom to produce are decided primarily by the demand and supply interactions in the market.

Dictatorship:

A system in which economic decisions are taken by the dictator which may be an individual or a group of selected people

Command or planned economy:

A mode of economic organization in which the key economic functions – for whom, what, how to produce are principally determined by government directive.

Optimum:

Producing the best possible results (also optimal)

Equity in economics:

A situation in which every thing is treated fairly or equally, i.e. according to its due share

Nepotism:

Doing unfair favors for near ones when in power

Microeconomics:

The behavior of individual elements in the economy

Macroeconomics:

The economy as whole or on aggregate level

Rational choice:

The choice based on pure reason and without succumbing to one's emotions or whims.

Barter trade:

A non-monetary system of trade in which "goods" not money is exchanged.

Opportunity Cost:

It is what must be given up or sacrificed in making a certain choice or decision.

Marginal Cost:

Marginal cost is the increment to total costs of producing an additional unit of some good or service.

Marginal benefit:

The increment to total benefit derived from consuming an additional unit of good or service.

Production Possibility Frontier (PPF):

The maximum amount of goods and services which the country can produce in a given time with limited resources, given a specific state of technology

Economic growth:

An increase in the total output of a country over time

Perfect competition:

A situation in which no firm or consumer is big enough to affect the market price.

Shortage:

Shortage is a situation in which demand exceeds supply, i.e. producers are unable to meet market demand for the product.

Surplus:

Situation of excess supply, in which market demand falls short of the quantity supplied

Goods market:

Market in which goods are bought and sold for the purpose of consumption

Factors markets:

Markets in which factors of production are bought and sold, for the purpose of production

Normal goods:

Whose quantity demanded goes up as consumer income increases.

Inferior goods:

Whose quantity demanded goes down as consumer income increases.

Giffen goods:

A special case of inferior goods whose quantity demanded increases when the price of the good rises

Price effect:

The sum of income and substitution effects

Income effect:

The effect of a price rise on quantity demanded that works through a decline in the real income (or purchasing power) of the consumer.

Substitution effect:

The effect of a price rise on quantity demanded that works through the consumer switching to substitutes goods.

Substitutes:

Goods that compete with one another or can be substituted for one another, like butter and margarine

Compliments:

Goods that go hand in hand with each another.

Cash crops:

The crops which are not used as food but as a raw material in factories e.g. cotton

Demand:

Demand is the quantity of a good buyer wish to purchase at each conceivable price.

Law of demand:

If the price of a certain commodity rises, its quantity demanded will go down, and vice-versa.

Demand function:

An equational representation of demand as a function of its many determinants

Demand curve:

A graph that obtains when price (one of the determinants of demand) is plotted against quantity demanded.

Supply:

Supply is the quantity of a good seller wish to sell at each conceivable price.

The law of supply:

The quantity supplied will go up as the price goes up and vice versa.

Supply schedule:

A table which shows various combinations of quantity supplied and price.

Supply function:

An equational representation of supply as a function of all its determinants

Supply curve:

When price is plotted against quantity supplied.

Determinants of supply are:

- Costs of production
- Profitability of alternative products (substitutes in supply)
- Profitability of goods in joint supply
- Nature and other random shocks
- Aims of producers
- Expectations of producers

Equilibrium:

Equilibrium is a state in which there are no shortages and surpluses; in other words the quantity demanded is equal to the quantity supplied.

Equilibrium price:

It is the price at which the quantity demanded is equal to the quantity supplied.

Equilibrium quantity:

The quantity at which the quantity demand is equal to the quantity supplied.

Algebraic Representation of Equilibrium:

If we have following demand and supply functions,

$$Q_d = 100 - 10 P$$

$$Q_s = 40 + 20 P$$

In equilibrium,

$$Q_d = Q_s$$

$$\begin{aligned}
 &\text{Therefore} \\
 100 - 10P &= 40 + 20P \\
 20P + 10P &= 100 - 40 \\
 30P &= 60 \\
 P &= 60/30 \\
 \mathbf{P} &= \mathbf{2}
 \end{aligned}$$

Putting the value of price in any of demand and supply equation,

$$\begin{aligned}
 Q &= 100 - 10 \times 2 \text{ (or } 40 + 20 \times 2) \\
 Q &= 100 - 20 \\
 \mathbf{Q} &= \mathbf{80}
 \end{aligned}$$

The equilibrium price is 2 and the equilibrium quantity is 80.

Government and Price-Determination:

The government may intervene in the market and mandate a maximum price (price ceiling) or minimum price (price floor) for a good or service.

Price ceiling:

The maximum price limit that the government sets to ensure that prices don't rise above that limit (medicines for e.g.).

Price floor:

The minimum price that a Government sets to support a desired commodity or service in a society (wages for e.g.).

Social cost:

The cost of an economic decision, whether private or public, borne by the society as a whole.

Marginal social cost:

The change in social costs caused by a unit change in output

ELASTICITIES

Elasticity is a term widely used in economics to denote the "responsiveness of one variable to changes in another."

Types of Elasticity:

There are four major types of elasticity:

- Price Elasticity of Demand.
- Price Elasticity of Supply.
- Income Elasticity of Demand.
- Cross-Price Elasticity of Demand.

Price Elasticity of Demand:

Price elasticity of demand is the percentage change in quantity demanded with respect to the percentage change in price.

$$\mathbf{PEd = Percentage\ change\ in\ Quantity\ demanded / Percentage\ change\ in\ Price}$$

Where ϵ = Epsilon; universal notation for elasticity.

Price Elasticity of Supply:

Price elasticity of supply is the percentage change in quantity supplied with respect to the percentage change in price.

$$\mathbf{PEs = Percentage\ change\ in\ Quantity\ Supplied / Percentage\ change\ in\ Price}$$

Income Elasticity of Demand:

Income elasticity of demand is the percentage change in quantity demanded with respect to the percentage change in income of the consumer.

$$\mathbf{YEd = Percentage\ change\ in\ Quantity\ demanded / Percentage\ change\ in\ Income}$$

Cross-Price Elasticity of Demand:

Cross price elasticity of demand is the percentage change in quantity demanded of a specific good, with respect to the percentage change in the price of another related good.

PbE_{da} = Percentage change in Demand for good a / Percentage change in Price of good b

Point Elasticity:

Point elasticity is used when the change in price is very small, i.e. the two points between

The formula for point elasticity can be illustrated as:

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

Or this formula can also be written as:

$$\epsilon = \frac{dQ}{dP} \times \frac{P}{Q}$$

Where d = infinitely small change in price.

Arc Elasticity:

Arc elasticity measures the “average” elasticity between two points on the demand curve.

$$\epsilon = \frac{\Delta Q}{Q} \div \frac{\Delta P}{P}$$

To measure arc elasticity we take average values for Q and P respectively.

Elastic and Inelastic Demand:

Slope and elasticity of demand have an inverse relationship. When slope is high elasticity of demand is low and vice versa.

Perfectly inelastic demand:

When the slope of a demand curve is infinity, elasticity is zero

Perfectly elastic demand:

When the slope of a demand curve is zero, elasticity is infinite.

Unit elasticity:

A 1% change in price will result in an exact 1% change in quantity demanded. Thus elasticity will be equal to one. A unit elastic demand curve plots as a rectangular hyperbola.

Note that a straight line demand curve cannot have unit elasticity as the value of elasticity changes along the straight line demand curve.

Total revenue and Elasticity:

Total revenue (TR) = Price x Quantity; when the demand curve is inelastic, TR increases as the price goes up, and vice versa; when the demand curve is elastic, TR falls as the price goes up, and vice versa.

Determinants of price elasticity of demand:

Number of close substitutes within the market - The more (and closer) substitutes available in the market the more elastic demand will be in response to a change in price. In this case, the substitution effect will be quite strong.

Percentage of income spent on a good - It may be the case that the smaller the proportion of income spent taken up with purchasing the good or service the more inelastic demand will be.

Time period under consideration –

Demand tends to be more elastic in the long run rather than in the short run.

Effects of Advertising on Demand Curve:

Advertising aims to:

- Change the slope of the demand curve – make it more inelastic. This is done by generating brand loyalty;
- Shift the demand curve to the right by tempting the people's want for that specific product.

Normal Goods:

If the sign of income elasticity of demand is positive, the good is normal.

Inferior Goods:

If sign is negative, the good is inferior.

Determinants of Income Elasticity of Demand:

The determinants of income elasticity of demand are:

- Degree of necessity of good.
- The rate at which the desire for good is satisfied as consumption increases
- The level of income of consumer.

Short Run:

Short run is a period in which not all factors can adjust fully and therefore adjustment to shocks can only be partial.

Long run:

A period over which all factors can be changed and full adjustment to shocks can take place.

Rational Choice:

Rational choice consists in evaluating the costs and benefits of different decisions and then choosing the decision that gives the highest benefit relative to cost.

Ignorance and Irrationality:

There is a difference between “ignorance” and “irrationality.” A person operating under uncertainty and thus at least partial ignorance can still make rational decisions by taking into account all the information she has at her disposal. Rationality is an ex-ante concept.

CONSUMER BEHAVIOR:

There are two approaches to analyzing consumer behavior;

- Marginal utility analysis
- Indifference curve approach.

Utility is the usefulness, benefit or satisfaction derived from the consumption of goods and services.

Total utility is the entire satisfaction one derives from consuming a good or service.

Marginal utility is the additional utility derived from the consumption of one or more unit of the good.

The Law of Diminishing Marginal Utility:

The law of diminishing marginal utility states that as you consume more and more of a particular good, the satisfaction or utility that you derive from each additional unit falls.

The marginal utility curve slopes downwards in a MU-Q graph showing the principle of diminishing marginal utility.

Consumer Surplus and Optimal Point of Consumption:

Consumer surplus is the difference between willingness to pay and what the consumer actually has to pay: i.e. $CS = MU - P$.

The optimal point of consumption:

That point where consumer surplus becomes zero. If marginal utility is greater than price, consumption will increase causing MU to fall until it equals price, and vice versa.

The Equi-marginal Principle:

In the case of more than two goods, optimum consumption point can be arrived at by using the equi-marginal principle. This state that a person will derive a maximum level of TU from consuming a particular bundle of goods when the utility derived from the last dollar spent on each good is the same:

$$\frac{MU_a}{P_a} = \frac{MU_b}{P_b} = \frac{MU_c}{P_c} \dots\dots\dots$$

The Problem of Uncertainty:

The problem of uncertainty is integral to consumption decisions especially in the matter of purchasing durable goods. Uncertainty means assigning probabilities to the outcomes.

A consumer's response to uncertainty depends upon her attitude to risk: whether she is:

Risk averse.

Risk-loving.

Risk neutral.

Risk means to take a chance after the probabilities have been assigned.

The odds ratio (OR) is the ratio of the probability of success to the probability of failure. It can be equal to 1, less than 1 or greater than 1. If it is equal to 1 we call it fair odds, if less than 1 unfavorable odds, and if greater 1 then favorable odds.

A risk neutral person is one who buys a good when $OR > 1$. He is indifferent when $OR = 1$ and will not buy when $OR < 1$.

A risk averse person will not buy if $OR < 1$. He will also not buy if $OR = 1$. He might also not decide to buy if $OR > 1$.

A risk loving person will buy if $OR > 1$ or $= 1$, but he might also buy when $OR < 1$. The degree of risk aversion increases as your income level falls, due to diminishing marginal utility of income.

Risk hedging:

Can be used to reduce the extent to which concerns about uncertainty affect our daily lives.

An indifference curve:

A line which charts out all the different points on which the consumer is indifferent with respect to the utility he derives.

Marginal rate of substitution (MRS):

The indifference curve between any two points is given by the change in the quantity of good Y divided by change in the quantity of good X. This is called the.

A diminishing marginal rate of substitution (MRS) is related to the principle of diminishing marginal utility. MRS is equal to the ratio of the marginal utility of X to the marginal utility of Y.

$$\frac{dY}{dX} = \frac{MUX}{MUY} = MRS$$

The indifference curve for **perfect substitutes** is a straight line, while it is L-shaped for **perfect compliments**.

The Budget Line:

The budget line shows various combinations of 2 goods X & Y that can be purchased.

Input price ratio:

Budget line's slope $-P_x/P_y$ is called input price ratio.

The optimum consumption point for the consumer:

Where the budget line is tangent (intersect) to the highest possible indifference curve at such a point, the slopes of the indifference curve and the budget line are equal. In other words:

$$MRS = P_x/P_y = \Delta Y/\Delta X = MU_x/MU_y.$$

Just as we can use indifference analysis to show the combination of goods that maximizes utility for a given budget, so too we can show the least-cost combination of goods that yields a given level of utility.

The Income Consumption Curve (ICC):

Change in curve due to change in income

Price Consumption Curve (PPC):

Change in curve due to change in Price

When the price of one good change, two things happen:

- **One** the purchasing power of consumer changes i.e., the budget line shifts (leads to income effect).
- **Secondly**, the slope of budget line changes due to a change in the relative price ratio (leads to substitution effect).

Income & Substitute Effect:

The substitution effect of a price rise is always negative, while the **income effect** of a price rise on the consumption of a normal good is negative. **The income effect** for an inferior good is positive. The income effect of a Giffen good is so positive that it offsets the negative substitution effect, therefore.

Limitation of Indifference Approach:

The indifference curves approach has the following limitations:

Indifference curve analysis is only possible for 2 or at best for 3 goods.

It is almost impossible to practically derive indifference curves.

The consumer may not always behave rationally.

The consumer may not always realize the level of utility (ex-post) from consumption, that she originally expected (ex-ante).

Indifference curve analysis can not help when one of the goods (X or Y) is a durable good.

Firm:

A firm is any organized form of production, in which someone or a collection of individuals are involved in the production of goods and services. A firm can be sole proprietorship (one

person ownership), partnership (a limited number of owners) or a limited company (a large number of changing shareholders).

Production Function:

A production function is simply the relationship between inputs & outputs.

Mathematically it can be written as:

$$Q = f(K, L, N, E, T, P, \dots)$$

Where,

Q = Output = Total product produced

K = Capital

L = Labor

N = Natural resources

E = Entrepreneurship

T = Technology

P = Power

Cobb Douglas production function:

$$Q = A K^\alpha L^{1-\alpha}$$

Where:

Q = output

L = labor input

K = capital input

A, α and $1 - \alpha$ are constants determined by technology.

Short run:

Short run is a period of time in which at least one of the factors of production is fixed or Unchangeable

Long run:

Long run is a period of time in which all the factors of production used in the production are flexible. The actual length of the short run and long-run can vary considerably from industry to industry.

The Law of Diminishing Marginal Returns:

The law of diminishing marginal returns states that as you increase the quantity of a variable factor together with a fixed factor, the returns (in terms of output) become less and less.

The total physical product (TPP)

A factor (F) is the latter's total contribution to output measured in units of output produced.

Average physical product (APP):

Is the TPP per unit of the variable factor

$$APP = TPPF/QF$$

Marginal physical product (MPP)

Is the addition to TPP brought by employing an extra unit of the variable factor More generally,

$$MPPF = \Delta TPPF / \Delta QF$$

Relationship between APP and MPP:

- If the marginal physical product equals the average physical product, the average physical product will not change.
- If the marginal physical product is above the average physical product, the average physical product will rise.

- If the marginal physical product is below the average physical product the average physical product will fall.

If population is increasing and output remains constant:

Then diminishing returns set in and therefore average per capita production/consumption can be expected to fall ceteris paribus (all factor effect demand should remain constant).

A firm is confronted with three more decisions;

- Scale of production,
- Location, size of industry
- Optimum combination of inputs.

The Scale of Production:

Change in production or increasing, decreasing return if due to the change in scale of production.

The location, size of Decision:

The location decision depends upon both the location of raw material suppliers and the location of the market. The nature of the product, transportation costs, availability of suitable land for production, stable power supply and good communications network, availability of qualified and skilled workers, level of wages, the cost of local services and availability of banking and financial facilities are among some other important factors. The size of an industry can lead to external economies and diseconomies of scale.

External Economies and Diseconomies of Scale:

External economies are benefits accruing to any one firm due to actions or the presence of other firms. For example, advertising by a rival industry, setting up of credit information bureaus by banks.

The Optimum Combination of Factors:

The optimum combination of factors will obtain at the point where the marginal physical product of the last dollar spent on all inputs is equal, i.e.:

$$\frac{MPP_K}{PK} = \frac{MPP_L}{PL}$$

Isoquant:

An isoquant represents different combinations of factors of production that a firm can employ to produce the same level of output.

Marginal Rate of Technical Substitution (MRTS):

The slope of an isoquant is called marginal rate of technical substitution (MRTS).

Budget Line:

Amount of money needed or available

COST:

Expense incurred in production.

Variable Cost:

Costs which vary with the level of activity (or output) are called variable costs.

Fixed Costs:

Costs which do not vary with the level of activity or output are called fixed costs. In long run there are no fixed costs.

Relationship between costs and productivity:

There is an **inverse** relationship between costs and productivity, i.e. as productivity rises, costs fall and vice versa.

Total Cost:

Total cost (TC) is the sum of all fixed and variable costs.

Average Cost:

Average cost (AC) is the vertical summation of the AFC & AVC, where

$$AC = AFC + AVC$$

$AFC = TFC/Q$ and

$AVC = TVC/Q$.

Marginal Cost:

Marginal cost is the addition to TC caused by a unit increase in output. More generally:

$$MC = \Delta TC / \Delta Q.$$

The Long-Run Average Cost Curve (LRAC):

The long-run average cost (LRAC) curve for a typical firm is U shaped.

As a firm expands, it initially experiences economies of scale (due to productive efficiency, better utilization of resources etc.); in other words it faces a downward sloping LRAC curve. After the scale of operation is increased further, however, the firm achieve constant costs i.e., LRAC become flat.

If the firm further increases its scale of operation, diseconomies of scale set in (due to problems with managing a very large organization etc.) and the LRAC assumes a positive slope.

Long-run marginal cost (LRMC):

In case a firm is enjoying economies of scale, each incremental unit will cost less than the preceding one i.e., LRMC will be falling. The opposite will be true for diseconomies of scale. In case of constant costs, each incremental unit will cost the same, i.e., the LRMC will be constant.

Envelope curve:

The LRAC curve for a firm is actually derived from its SRAC curves. The exact shape of the LRAC is a wave connecting the least cost parts of the SRAC curves. In practice however, LRAC is shown as a smooth U-shaped curve drawn tangent to the SRAC. This is also called an envelope curve.

REVENUES

Revenues are the sale proceeds that accrue to a firm when it sells the goods it produces.

Total Revenue (TR):

Total revenue (TR), average revenue (AR) and marginal revenue (MR) concepts apply in the same way as they did to TC, AC and MC.

$$TR = P \times Q$$

Average Revenue (AR)

$$AR = TR/Q$$

AR is almost always equal to price unless the firm is engaged in price discrimination.

Marginal Revenue (MR):

$$MR = \Delta TR / \Delta Q.$$

Price-taker:

A firm that does not have the ability to influence market price is a price-taker.

For a price taker, **AR=MR=P**. In this case TR is a straight line from the origin. The demand (or AR) curve the firm faces is a horizontal line.

Price-maker Firm:

A firm that influences the market price by how much it produces can be called a price-maker or price-setter.

Normal economic profit:

Economists say that when firms earn zero accounting profits, they actually earn normal economic profits.

Positive profits (supernormal profits):

Positive profits are, for this reason, called supernormal profits as they are over and above what the owners normally require as a return for their entrepreneurship.

Profit maximization using calculus:

If total revenue (TR) and total cost equation are given as follows:

$$TR = 48q - q^2$$

$$TC = 12 + 16q + 3Q^2$$

Then we can find out the value of output at which profit is maximized as under:

Solution:

Profit is maximized at the point where

$$MC = MR$$

MC function can be found by taking derivative of total cost function. i.e.:

$$MC = d TC / dQ$$

$$MC = 16 + 6Q$$

MR function can be found by taking derivative of total revenue (TR) function i.e.:

$$MR = d TR / dQ$$

$$= 48 - 2Q$$

As profit is maximized at the point where $MR = MC$, so by equating values of MC and MR function, we get,

$$MR = MC$$

$$16 + 6Q = 48 - 2Q$$

$$6Q + 2Q = 48 - 16$$

$$8Q = 32$$

$$Q = 4$$

The equation for total profit is,

$$\pi = TR - TC$$

$$\begin{aligned}
&= 48Q - Q^2 - (12 + 16Q + 3Q^2) \\
&= 48Q - Q^2 - 12 - 16Q - 3Q^2 \\
&= -4Q^2 + 32Q - 12
\end{aligned}$$

Putting $Q = 4$, we get,

$$\begin{aligned}
T\pi &= -4(4)^2 + 32(4) - 12 \\
&= -64 + 128 - 12
\end{aligned}$$

$$T\pi = 52$$

So profit is maximized where output is 4 and the maximum profit is 52.

MARKET STRUCTURES

Market structure refers to how an industry (broadly called market) that a firm is operating in is structured or organized.

The key ingredients of any market structure are:

- Number of firms in the market/industry
- Extent of barriers to entry
- Nature of product
- Degree of control over price.

Four broad market structures have been identified by economists:

- Perfect competition
- Monopoly
- Monopolistic competition
- Oligopoly.

PERFECT COMPETITION

The main assumptions of perfect competition are:

Large number of buyers and sellers, therefore firms price-takers.

No barriers to entry (also implies free mobility of factors of production).

Identical/homogeneous products Perfect information/knowledge

Perfect competition can be thought of as an **extreme form of capitalism**, i.e. all the firms are fully subject to the market forces of demand and supply.

Concentration ratio:

Is used to assess the level of competition in an industry It is simply the percentage of total industry output that is produced by the 5 largest firms in the industry.

The Short Run and Long Run under Perfect Competition:

The short run is the period where at least one factor of production is fixed. In perfect competition, it also means that no new firms can enter the market. In the long run, all the factors of production are variable.

Allocative efficiency: (the point of maximum allocative efficiency)

The optimal point of production for any individual firm is where

$MR=MC$. The optimal point of production for any society is where price is equal to marginal cost. This is called the point of maximum allocative efficiency

Productive efficiency:

This is attained when firms produce at the bottom of their AC curves, that is, goods are produced in the most cost efficient manner. Perfectly competitive firms also achieve this in the long run because they produce at $P=MC$

MONOPOLY

A situation where there is a single producer in the market.

PRICE DISCRIMINATION

Price discrimination (PD) happens when a producer charges different prices for the same product to different customers.

Types of Price Discrimination:

PD can be of three types:

1st degree (everyone charged according to what he can pay),

2nd degree (different prices charged to customers who purchase different quantities) and

3rd degree (different prices to customers in different markets)

MONOPOLISTIC COMPETITION

Monopolistic competition is also characterized by a large number of buyers and sellers and absence of entry barriers.

OLIGOPOLY

Similar to monopoly in the sense that there are a small number of firms (about 2-20) in the market and, as such, barriers to entry exist.

Collusion:

Collusion occurs when two or more firms decide to cooperate with each other in the setting of prices and/or quantities.

Cartel:

A cartel is most likely to survive when the number of firms is small, there is openness among firms regarding their production processes.

Break down of Collusive Oligopoly:

A collusive oligopoly (say based on production quotas) is likely to break down when the incentive to cheat is very high. This can arise, for instance, in a situation where there is a lure of very high profits so that individual firms cheat on their quota and try to increase output and profits.

Prisoner's Dilemma Situation:

A prisoner's dilemma situation for oligopolistic firms arises when 2 or more firms by attempting independently to choose the best strategy anticipation of whatever the others are likely to do, all end up in a worse position than if they had cooperated in the first place.

Maximin:

Maximin strategy is a cautious (pessimistic) approach in which firms try to maximize the worst payoff they can make.

Maximax strategies:

A maximax strategy involves choosing the strategy which maximizes the maximum payoff (optimistic).

Kinked Demand Curve:

A kinked demand curve explains the "stickiness" of the prices in oligopolistic markets.

Non Price Competition:

Non price competition means competition amongst the firms based on factors other than price, e.g. advertising expenditures.

Composed By:
INVINCIBLE MÄNÖ



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Glossary of Economics

By

<http://vustudents.ning.com>

Question: Differentiate between inflation and unemployment.

Answer: Inflation is a rise in the general price level that results in a decline in the purchasing power of money. In economics, a person who is able and willing to work yet is unable to find a paying job is considered unemployed. The unemployment rate is the number of unemployed workers divided by the total civilian labor force, which includes both the unemployed and those with jobs (all those willing and able to work for pay). In practice, measuring the number of unemployed workers actually seeking work is notoriously difficult.

Question: Is there any relation between inflation and unemployment?

Answer: The Phillips Curve was a relationship between unemployment and inflation discovered by Professor A.W. Phillips. He found that there was a trade-off between unemployment and inflation, so that any attempt by governments to reduce unemployment was likely to lead to increased inflation. This relationship was seen by Keynesians as a justification of their policies. However, in the 1970s the curve began to break down as the economy suffered from unemployment and inflation rising together (stagflation).

Question: Is the natural rate of unemployment includes frictional, structural & seasonal unemployment?

Answer: The natural rate of unemployment includes frictional, structural & seasonal unemployment. But sometimes we exclude the seasonal unemployment.

Question: Can BOP of a country be positive?

Answer: BOP of a country can only be positive when the country's exports are greater than its imports.

Question: Why is it considered well to bring all BOP's to zero?

Answer: If BOP of any country is zero, it reflects that the current account of that country has enough balance to meet the requirements of that country and if the current account is in surplus, the country might invest in other countries or lend money to other countries.

Question: Why capital account starts experiencing a deficit when domestic interest rate falls below the world interest rate?

Answer: When domestic interest rates falls below the world interest rates. Investors would deposit money in the international banks. As a result, local banks will receive less income in the form of interest and less money will be invested in the economy which means that economy will earn less and capital account will go in deficit.

Question: What should be the decent/appropriate growth rate in any country?

Answer: A growth rate of between 2-3% is considered normal for mature developed countries; for LICs, 5-7% is considered healthy and 7%+ is excellent.

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Question: Is the terms of trade (TOT) defined as the ratio of the value of exports to the value of imports? How does the TOT relate to the exchange rate?

Answer: The terms of trade (TOT) is defined as the ratio of price index of export goods (PIX) to the price index of import goods (PIM) times 100, I.e., $(PIX/PIM)*100$. Since both price indexes are based on the prices of domestic currency, so a rise in the exchange rate of domestic currency, i.e., appreciation of domestic currency, will lower the import prices and therefore improve the TOT. On the contrary, a fall in the exchange rate of domestic currency, i.e., depreciation of domestic currency, will raise the import prices and therefore worsen the TOT.

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Question: Why government can not print new currency to pay the debts?

Answer: When there is deficiency of internal resources then government borrow. Government can borrow either from central bank (internal sources) or from IMF and World Bank (external sources). But when government borrow from central bank by printing new notes, the quantity of money in circulation increases, which leads to increase in aggregate demand and then in inflation. So, Government has to borrow from external sources, which is another way to solve the problem.

Question: Why foreign dealings are done in dollars and not in rupees?

Answer: Foreign dealings are normally done in hard currency. The hard currency is any national currency that is expected to retain its value and is readily acceptable for most international transactions. The U.S. dollar is one of them. That is why foreign dealings are made in dollars not in rupee, which is a type of soft currency.

Question: Differentiate between nominal and real exchange rate.

Answer: Nominal exchange rate is the rate which actually prevails in the foreign exchange market. The real exchange rate is the rate which is adjusted to relative prices (price of foreign good divided by price of domestic good). Suppose, in foreign exchange market, the nominal exchange rate is \$/ Rs.2.00. That means we have to pay Rs.2.00 for \$ 1.00 in foreign exchange market. When we talk about real exchange rate, then we adjust the nominal exchange rate with relative price ratio of foreign to domestic good. Now suppose that the relative price ratio of foreign to domestic good is \$10/ Rs.15. Thus the real exchange rate is equal to $P_f/P_d \times \text{Nominal exchange rate}$, i.e. $10\$/15Rs \times \$/2Rs$.

Question: How do we evaluate the value of money? <http://vustudents.ning.com>

Answer: Supply and demand determines the value of a currency. If demand is high, the value rises, and vice versa. Factors that affect supply and demand include the following: • Interest rates • Inflation • Balance of trade • Economic growth • Market speculators • Government budget deficits/surpluses

Question: What is main difference between nominal money supply and real money supply?

Answer: Real money supply is the supply of real money in the economy. Real money is supplied considering the income level and actual return on investment prevailing in the market. In contrast, nominal money supply is the controlled money supply which is controlled by the SBP through its various instruments.

Question: Explain the term economic efficiency?

Answer: Economic Efficiency means full utilization of all available resources in economy i.e. to produce the required amount of goods and services. When economy is producing its required amount of goods and services by utilizing all of its resources, then the economy is considered to be an efficient economy.

Question: Define law of demand.

Answer: Quantity demanded rises as price falls, other things constant. In other words, "Other things remaining the same, when the price of a good rises then quantity demanded of a good tend to contract and when the price of a good declines then the quantity demanded of it tend to expand."

Question: Define law of supply.

Answer: Quantity supplied rises as price rises, other things constant. In other words, "Other things being equal, when the price of a product rises, then sellers tend to supply a large amount of it and when the prices of a product falls, then the sellers tend to supply a smaller amount of it."

Question: What is the difference between a change in demand and a change the quantity demanded?

Answer: There is a distinction between demand and quantity demanded. Demand describes the behavior of buyers at every price. At a particular price, there is a particular quantity demanded. The term 'quantity demanded' makes sense only in relation to particular price.

Question: What is the difference between 'quantity supplied' and 'supply'?

Answer: There is a distinction between supply and quantity supplied. Supply describes the behavior of sellers at every price. At a particular price, there is a particular quantity supplied. The term 'quantity supplied' makes sense only in relation to a particular price.

Question: What is ceteris Paribus?

Answer: Ceteris paribus is a Latin phrase, literally translated as "other things the same," and usually rendered in English as "all other things being equal." A prediction, or a statement about causal or logical connections between two states of affairs, is qualified by ceteris paribus in order to acknowledge, and to rule out, the possibility of other factors which could override the relationship between the antecedent and the consequent.

Question: What are the factors which cause the shift in market supply curve?

Answer: Factors which cause the shifts in market supply curve are price, technology, natural shocks, cost of production, expectation of producers and other social factors.

Question: Why demand curve is important?

Answer: Demand curve is important because it indicates the level of demand in the market. Suppliers supply their product and set price of their product, keeping in view demand of that item in the market.

Question: What are the determinants of income elasticity of demand?

Answer: There are three determinants of income elasticity of demand. These are:
Degree of necessity of a good: In a developed economy, as income increases the demand for luxuries increases a lot while the demand for necessity increases a little bit because people cannot consume a lot of basic goods. So the items such as cars have very high income elasticity of demand whereas items such as potato have low elasticity of demand. Also inferior good have a negative income elasticity of demand. The rate at which the



desire for good is satisfied as consumption increases: The more quickly people become satisfied, the less their demand will expand as income increases. Level of income of consumer: In an economy, if the income of rich people increases the demand for luxuries would increase because rich people now have more money. If on the other hand, the income of poor people increase, the demand for necessity would increase.

Question: **How elasticity is always referred to as a positive value even though it can be negative?**

Answer: In economics, elasticity is a measure of the incremental percentage change in one variable with respect to an incremental percentage change in another variable. Elasticity is almost always referred to as a positive value, meaning that people use the absolute value in the case of a kind of elasticity that is normally negative.

Question: **Why does a monopoly have no supply curve?**

Answer: A supply curve is a curve that shows the quantity supplied at different prices, since a monopoly sets the price and the quantity together; there is no combination of quantity supplied and price under a monopoly. The best we can say is that there is a 'supply point' that is set by the monopoly.

Question: **Differentiate between firm and industry.**

Answer: A firm is a business unit formed for the purpose of carrying out some kind of trading activity. The term "firm" is used in many ways, but the correct meaning is a business carried on under a trading style by partners. Many people use the term "firm" to embrace any business, i.e., Private Limited and Public Limited companies but this is technically incorrect. An industry is generally any grouping of businesses that share a common method of generating profits, such as the "movie industry", the "automobile industry", or the "cattle industry". It is also used specifically to refer to an area of economic production focused on manufacturing which involves large amounts of upfront capital investment before any profit can be realized, also called "heavy industry."

Question: **What is Game Theory?**



Answer: Game Theory is a mathematical method of decision-making in which a competitive situation is analyzed to determine the optimal course of action for an interested party, often used in political, economic, and military planning. It is also called as theory of games.

Question: Is a public good a common property?

Answer: Public goods are goods that can be concurrently consumed by people. A good is a public good or not depends on the nature of the good itself. Common property is a property of which people have no exclusive rights to use, no exclusive right to derive income from it and no right to transfer the right of using and deriving income from the property. A property is a common property or not depends on how the property rights of the property are defined by law and/or customs. A public good is NOT necessarily a common property. For example, a concert is a public good but it is not a common property. Moreover a common property is also NOT necessarily a public good too. For example, the chairs inside the classroom are a common property but they are not public goods.

Question: What are the solutions to cure the "internal disequilibrium" and "external disequilibrium"?

Answer: Internal disequilibrium means the economy has unemployment rate higher than the natural rate and there is high inflation. In general, it can be solved by monetary and fiscal policies. On the other hand, external disequilibrium means the economy has imbalance balance of payments (BOP). If the exchange rate is a flexible rate, the government has to do nothing because any imbalance will be solved by the adjustment of the exchange rate. However, if the exchange rate is fixed, the BOP imbalance can also be solved by monetary and fiscal policies.

Question: What factors shift the Aggregate demand curve to right and what factors shift the AD curve to left?

Answer: AD shifts to the right when any component of AD increases autonomously; e.g., if a) Consumers become more willing to spend at every price level;

b) There are autonomous increases in investment due to better business prospects; c) The government spends more, or reduces taxes; net exports rise at all prices (due to say an increase in the quality of domestic goods relative to foreign goods). If above mentioned facts are reversed, AD will shift to the left.

Question: What is the difference between GDP and GNP?

Answer: Gross domestic product (GDP) is the value of the total final output produced inside a country, during a given year. GDP, like all measures of national income, is a flow (as opposed to stock) figure accruing over the period of one year. Gross national product (GNP) is the value, at current market prices, of all final goods and services produced during a year by the factors owned by the citizens of a country. Thus the income earned by Pakistani citizens working in the US would be included in Pakistan's GNP but excluded from Pakistan's GDP. Conversely, the income earned by a US citizen (individual or corporate) in Pakistan would be included in Pakistan's GDP but excluded from Pakistan's GNP. Generally, $GNP = GDP + \text{net factor income from abroad}$.

Question: Why Equilibrium is necessary in an economy? Is it possible for an economy to be in a state of equilibrium in real world?

Answer: Equilibrium is a state in which there are no shortages or surpluses in the economy and there is absence of inflation or deflation. To avoid inflation or deflation, it is necessary for an economy to have a state of equilibrium which is considered to be an ideal state for an economy. It is possible for an economy to be in a state of equilibrium and an economy wants to remain in the state of equilibrium for longer period of time if it has a strong market, but it is not necessary that the economy is always in state of equilibrium.

Question: What does consumption function show? <http://vustudents.ning.com>

Answer: Consumption function shows a functional relationship between consumption and personal disposable income. There is positive relationship between personal disposable income and consumption, i.e. when personal disposable income increases, consumption also increases and vice versa.

Question: What is the difference between price value and price level?

Answer: Price value is the value of commodity bought by the consumer at a certain price from the market, whereas, price level is the current market price prevailing in the market.

Question: Differentiate between real and nominal variables.

Answer: In economics, the distinction between nominal and real numbers is often made. Nominal variables -- such as nominal wages, interest rates and gross domestic product (GDP) -- refer to amounts that are paid or earned in money terms. Real variables -- real wages, interest rates, and GDP -- are corrected for the effects of inflation. They indicate the value of these numbers in terms of the purchasing power of wages, interest, or total production.

Question: Why investment increases much more than a change in income?

Answer: Whenever national income of any economy starts increasing, the investors foresee the sound condition of the economy and start investing in that economy. That is why, investment increases more than income does.

Question: What is return on investment?

Answer: Return on investment is the profit earned by investing in some business or some project, for instance investment in stock exchange. Profit earned from the trade of shares of different companies is the return on investment made in the stock exchange.

Question: What are HICs and LICs?

Answer: HICs stand for higher income countries and LICs stand for lower income countries. The World Bank's main criterion for classifying economies is the gross national income (GNI) per capita which is similar to but not the same as the gross domestic product (GDP). Based on its GNI per capita, every economy is classified as low income, middle income (subdivided into lower middle and upper middle), or high income. In low income countries the GNI per capita is \$745 or less; in lower middle



income countries it is \$746 - \$2,975; in upper middle income countries it is, \$2,976 - \$9,205; and in high income countries it is, \$9,206 or more.

Question: Define injections and withdrawals.

Answer: “The inflows in circular flow of income are called injections”. Investment, government spending and exports are included in injections “The outflows in circular flow of income are called withdrawals”. Savings, imports and taxes are included in withdrawals.

Question: What is meant by minimum wage?

Answer: The minimum wage is the minimum rate a worker can legally be paid (usually per hour) as opposed to wages that are determined by the forces of supply and demand in a free market. In most cases, the minimum wage acts as a price floor. Each country sets its own minimum wage laws and regulations, and many countries have no minimum wage.

Question: Give arguments for and against the concept of minimum wage.

Answer: Minimum wages may have the positive effect of: • Reducing wage slave low-paid work. • Stimulating economic growth by increasing the purchasing power of workers. • Stimulating economic growth by discouraging labor-intensive industries, thereby encouraging more investment in capital and training. • Encouraging many of those who would normally take low-wage jobs to stay in (or return to) school and thus to accumulate human capital. On the other hand, minimum wages may have the negative effects of: • Curbing economic growth by increasing the cost of labor. • Increasing the price of goods and services, since employers may be able to pass on wage costs in the form of higher prices. • Decreasing incentive for some low-skilled workers to gain skills. • Where implemented locally, making labor more expensive than in other areas, which may discourage inward investment and encourage local businesses to relocate their operations elsewhere.

Question: What are expansionary and contractionary effects?



Answer: Expansionary effect refers to the effect of raising the equilibrium level of national income. For example, an increase in government spending will have expansionary effect on the equilibrium level of national income. On the contrary, contractionary effect refers to the effect of lowering the equilibrium level of national income. For example, an increase in tax will have contractionary effect on the equilibrium level of national income.

Question: What is Deflation?

Answer: Deflation in economics refers to a decrease in the general price level, i.e. the nominal cost of goods and services as well as wages decrease. Hence, it is an opposite of inflation.

Question: What is inflationary gap?

Answer: Inflationary gap is the measure of the 'excess' in aggregate expenditure to the full employment aggregated expenditure, it appears when the equilibrium level of income is 'greater' than the full employment level of income.

Question: What is hyper inflation? How it can be reduced?

Answer: Hyper inflation means that prices of the consumable goods are very high. Prices can be reduced by supplying more goods in the market and it is only possible when new production units are introduced in the market. This will decrease unemployment rate as well.

Question: What is the difference between Price inflation and Wage Inflation?

Answer: Price inflation is the rate of increase in the prices of goods and services while the wage inflation is rate of increase in prices of factor of production.

Question: How the inflation effect on the Import and Export of the country?

Answer: When general price level increases in an economy, local currency is devalued. Economy has to spend more on imports and earns less in exports. In other words, imports increase and exports decrease.



Question: Is it true to say that inflation can only sustain with the increase in money supply?

Answer: Inflation can only be sustained if there is a persistent increase in money supply. If there is only a once-and-for-all increase in money supply and so as the price level, it is not inflation. For example, an increase in government expenditure.

Question: What is meant by labor force?

Answer: In economics the labor force is the group of people who have a potential for being employed. Normally, the labor force consists of everyone above a certain age (around 14 to 16) who is participating workers, that is people actively employed or seeking employment. People not counted include students, retired people, stay-at-home parents, people in prisons or similar institutions, as well as discouraged workers who simply do not want work.

Question: What are unemployment benefits?

Answer: Unemployment benefits are usually given by the state to the unemployed persons. Unemployment benefits are usually given in higher income countries (HICs) where people can live off rather well on unemployment benefit and therefore choose to not work. The situation is not the same in lower income countries (LICs).

Question: What is repayment of debt?

Answer: When money borrowed is paid back in full settlement. It is called repayment of debt.

Question: What is "high-powered money"?

Answer: The "high-powered money" is the same as monetary base, which is defined, at the minimum, as the sum of the currency in circulation (banknotes and coins) and the balance of the banking system held with the central bank (the reserve balance or the clearing balance).

Question: What is GATT?

Answer: General Agreement on Tariffs and Trade (usually abbreviated GATT) functions as the foundation of the WTO trading system, and remains in force, although the 1995 Agreement contains an updated version of it to replace the original 1947 one.

Question: What does the IS-LM framework mean?

Answer: The IS-LM model helps us to understand the two opposing theories. The IS (investment/saving) curve represents equilibrium in product markets. The LM (liquidity/money) curve represents equilibrium in the money market. The point at which the two curves intersect is the only combination of output and interest rates (i.e., bond yields) where both the goods and financial markets are in balance.

Question: What are the differences between the IS-LM model and the Keynesian model?

Answer: The 'simple' Keynesian model is a simplified model to illustrate Keynes's idea about the equilibrium income. On the other hand, the IS-LM model is a more general model (involving more variables, e.g., P and r) to illustrate Keynes's idea about the equilibrium income.

Question: What is Economics?

Answer: Economics is defined as the study of how people choose to use their scarce resources in an attempt to satisfy their unlimited wants. In other words, we have unlimited possibilities in life to do whatever we want, but we are limited by the resources we have to do these things.

Question: What is the relationship between microeconomics and macroeconomics?

Answer: Either of microeconomics and macroeconomics separately is not adequate for the explanation of the working of the economic system rather both are jointly needed for the right solutions of economic problems. Microeconomics studies the working of the small parts of the economy, which later on can help in understanding the whole of the



economic system. Macroeconomics by dividing the economic system into large parts studies the inter-relationship among them. Therefore, microeconomics and macroeconomics both are inter-related.

Question: What is the benefit (main work) of economics in our life?

Answer: Economics plays a vital role in development of a country. A country's economy indicates the stability of that country. If economy of the country is strong, it would be ranked in the developed countries of the world. If, however, country's economy is not that strong, it would be considered as one of the backward countries in the world.

Question: Which type of economy is in Pakistan?

Answer: In Pakistan, there is mixed economy. Mostly, we have free market economy but in some cases Government does interfere to keep prices at an acceptable level. For example, prices of Wheat, flour, medicines etc.

Question: What is the difference between economics and business?

Answer: Economics is the study of how we, the people, engage ourselves in production, distribution and consumption of goods and services in a society whereas; business is conducted to earn profit for our own use. Whatever we do to earn our livelihood is called our business.

Question: What is opportunity cost?

Answer: Opportunity cost is a term used in economics, to mean the cost of something in terms of an opportunity foregone (and the benefits that could be received from that opportunity), or the most valuable foregone alternative. For example, if a city decides to build a hospital on vacant land that it owns, the opportunity cost is some other thing that might have been done with the land and construction funds instead.

Question: What is the difference between 'stock' and 'flow' concept?

Answer: A stock is a quantity of something held at a specific point of time. Examples are population, savings, and unsold stock. A flow is an increase or a decrease



in quantity over a specific period of time. Examples are tax, monthly pocket money, and birth rate.

Question: What is the difference between 'Capital' and 'Capital value'?

Answer: “The total amount of money or other resources owned or used to acquire future income or benefits.” On the other hand, ‘Capital value’ is the present value of a capital good. For example, a car is a capital and the price of the car is its capital value.

Question: What is the difference between 'concept' and 'assumption'?

Answer: These two terms are very different. The term 'concept' refers to an idea or abstract principle. For examples, force, space are concepts in Physics, God can be a concept in religious beliefs, time is a concept in Metaphysics, demand & supply are concepts in Economics, etc. However 'assumption' means a statement of something that has been taken for granted or something that has been accepted without any real proof. For example, "people are maximizers" is an assumption in Economics.

Question: What is the difference between 'scarcity' and 'shortage'?

Answer: 'Scarcity' and 'shortage' have different definitions. In reality, when most of the goods and resources are scarce goods, we called this phenomenon 'scarcity'. On the other hand, 'shortage' is defined as the situation where the quantity demanded is greater than the quantity supplied because the market price is lower than the equilibrium price.

Question: What is affected variable and cause variable?

Answer: In a graph, one variable is dependant and the other is independent. The dependant variable is called effect variable and independent variable is called cause variable because it causes other variable to change its value.

Question: How can we identify that something is elastic or inelastic?

Answer: When demand of any commodity does not change with the change in price of that commodity that item is said be inelastic. When demand of any commodity changes with the change in price of that commodity, that item is said be elastic.

Question: Why elasticity is important for economic analysis?

Answer: Elasticity is an important concept in understanding the incidence of indirect taxation, marginal concepts as they relate to the theory of the firm, distribution of wealth and different types of goods as they relate to the theory of consumer choice and the Lagrange Multiplier. Elasticity is also crucially important in any discussion of welfare distribution: in particular consumer surplus, producer surplus, or government surplus. The concept of Elasticity was also an important component of the Singer-Prebisch Thesis which is a central argument in Dependency Theory as it relates to development economics.

Question: Why concept of Elasticity is important in economics?

Answer: Elasticity is very important concept in economics because it affects the decision of individuals as well as of the whole economy. . It can help us in many ways. For example, for a firm the concept of elasticity is important because it gives information that either the change in price is profitable or not. It also gives information about the good which is more profitable to produce i.e. more inelastic the demand for the product, more profitable to produce that good. For a government, it is useful in the sense that it gives information about the commodity which is to be taxed and which is not to be taxed. It also gives important implication for the balance of payment problem.

Question: What is the difference between indifference curve and isoquants?

Answer: An indifference curve shows different combinations which a consumer can buy with a given level of income. Indifference curve shows behavior of a consumer in consumption. An isoquant shows different combinations of factors of production which a firm can employ. Isoquant shows behavior of a firm in production.

Question: What are economies of scale and diseconomies of scale?

Answer: In economics, returns to scale and economies of scale are terms that are related and sometimes incorrectly used interchangeably. They describe what happens as the scale of production increases. Economies of scale and diseconomies of scale refer to



an economic property of production that affects cost, if quantity of all input factors by some amount is increased. If costs increase proportionately, there are no economies of scale; if costs increase by a greater amount, there are diseconomies of scale; if costs increase by a lesser amount, there are positive economies of scale. When combined, economies of scale and diseconomies of scale lead to ideal firm size theory, which states that per-unit costs decrease until they reach a certain minimum, then increase as the firm size increases further.

Question: **Differentiate between Actual and Potential output.**

Answer: Actual output is that level which economy actually produces. In contrast, potential output is the aggregate capacity output of a nation; the maximum quantity of goods and services that can be produced with available resources and a given state of technology.

Question: **What is uncertainty cost? Explain its effects on firms and producers?**

Answer: The cost attached to uncertainty is called uncertainty cost. When uncertainty increases in an economy, firms become uncertain about prices of the goods which mean inability to accurately forecast firm revenues and expenditures, which means lower investment in the industry of the economy.

Question: **What is main difference between capital intensive goods and primary products?**

Answer: Primary product means the main product in which the firm is dealing. Capital intensive good means the production of good in which more capital is involved than labor.

Question: **Why is the LRAC curve U-shaped and what is its relationship with SRAC curves?**

Answer: First of all, the LRAC is not necessarily U-shaped. For example, if we assume that the production has constant returns to scale, the LRAC will be a horizontal straight line. However the SRAC is still U-shaped because we assume diminishing



marginal returns in short run. However the LRAC should 'envelope' to all the SRAC curves, that means, all the U-shaped SRAC curves will be on and above the horizontal LRAC. It is because the LRAC is always the 'lowest' average production cost at all levels of production.

Question: Why firm charges different prices to different consumer?

Answer: Every firm wants to maximize its profit. When goods are sold to different customers, every customer negotiate price of the good independently. So, different prices are settled with different customers. So, different prices are charged from different customers to maximize firm's profit.

Question: Is it possible for a firm to be both Price taker and price maker?

Answer: A firm can either be a price taker or a price maker. It cannot be price maker and price taker at the same time because when a firm will set its own price in the market for its good. At that time, it will be a price maker not a price taker.

Question: What is black marketing?

Answer: Black Marketing means hoarding of certain commodity to sell it at higher prices. But it is an illegal activity in the economy and creates artificial shortage of that commodity and lead to temporary condition of higher inflation in the economy.

Question: What is meant by non Price Competition? In which market structure does it exist?

Answer: None price competition is an effort put by the supplier to earn extra profit without increasing the price of the commodity. For instance, suppliers announce some prize schemes or announce some extra benefits with the commodity. It can be present in every competition except Monopoly.

Question: What is meant by market failure?

Answer: Market failure describes the circumstances in which distortions prevent the invisible hand from allocating resources efficiently.

Question: **What is market clearing level?**

Answer: Market clearing level is the price level prevailing in the market at which consumer is willing to buy a particular commodity from the market.

Question: **What is public good?** <http://vustudents.ning.com>

Answer: A public good is a good that, even if it is consumed by one person, is still available for consumption by others. For example, clean air is a public good, so is national defense or public safety.

Question: **What is the Adam smith view of "invisible Hand"?**

Answer: Invisible hand is an unknown power which is working for the interest of whole economy. In any economy, everybody cares for his/her personal benefit in the market but market as a whole also runs very smoothly which means that there is some unknown power behind economic market which is running the whole economy. One example of this invisible hand is Government itself.

Question: **What are subsidies?**

Answer: Almost in all market systems, government plays its role to stabilize the price of certain commodities, which are of public interest like medicines and edibles etc. For this, government give some incentives to producers to produce certain commodities, that is, to keep the supply and price of those commodities stable at certain level .These incentives, given to the producers, are called subsidies.



Glossary Economics

Average Propensity to save : The proportion of disposable income saved, $APS = S/Y$. For example, if a person spends £4,000 of a £10,000 income, then they have saved £6,000. The APS is therefore 0.6.

Demand Curve : The demand curve is a graph which shows the amount of a good that consumers are willing and able to buy at various prices. A normal demand curve is downward sloping due to the law of demand which states that as the price rises the demand for the product will fall, assuming consumers have a fixed income.

GDP Deflator : The index value used to eliminate the effect of inflation. Real national income is found by dividing money national income by the GDP deflator and multiplying by 100.

Marginal Product : The addition to total product following the employment of an extra unit of a variable factor, e.g. labour.

Marginal Product of Labor : The addition to output made by each extra worker.

Marginal Propensity to Consume : The proportion of each extra pound of disposable income spent by households. For example, if a person earns £1 more and consumes 60p of it, then the MPC is 0.6.

Marginal Propensity to Save : The proportion of each extra pound of disposable income not spent by households.



Mixed Economy : A society where resources are owned by both private individuals and the government.

Monetarist : A group of economists who believe that changes in the money supply are the most effective instrument of government economic policy, and the main determinant of the price level.

Monetary Policy : The use by government of changes in the supply of money and interest rates to achieve desired economic policy objectives.

Money : Any item which is widely accepted as payment for products.

Money Supply : The amount of money which is in an economy at a given point in time. There is no one agreed definition of the money supply largely because money takes many different forms, not all of which are agreed to be money by all economists.

Monopoly : In theory, an industry where one firm produces the entire output of a market.

Monopsony : A market where there is only a single buyer of a good.

Average Fixed Cost : Total fixed cost divided by output. The average fixed cost will decline as output increases. This is because as output increases the fixed costs are spread further and further.

Average product of Labor : The average product is the output per worker. The average product will tend to rise initially in the short run with increasing returns to the variable factor, but will eventually begin to fall when diminishing returns set in. The marginal product curve will intersect the average product curve at its peak



Average Propensity to consume : The proportion of disposable income spent: $APC = C/Y$. For example, if a person spends £4,000 of a £10,000 income, then the APC is 0.4.

Average Revenue : The average revenue is the total revenue divided by the level of output. It is therefore the price.

Average Revenue Curve : A curve which plots average revenue. It is equivalent to the demand curve. The shape of the average revenue curve will depend on the situation the firm is in. If the firm has price setting power then the average revenue curve (demand curve) will be downward-sloping. If the firm is a price-taker then the average revenue curve will be horizontal and the same as the marginal revenue curve.

Average Total Cost : The amount spent on producing each unit of output. The average cost is calculated by dividing the total level of cost by the level of output. The average fixed cost will be made up of two elements; the average fixed and average variable cost. The average cost curve will tend to be u-shaped due to the presence of increasing and then diminishing returns.

Average Variable Cost : The average variable cost is the total variable cost divided by output. The average variable cost curve will generally be u-shaped because of the presence of increasing returns initially in the short run reducing average variable costs initially. Eventually, however, diminishing returns will set in and the average variable cost will start to rise.

Balance OF Payment : It is the systematic record of all the economic transactions by any country with the rest of the world during a particular fiscal year.

Balance of Trade : The difference between the value of visible exports and visible imports. Calculated as the value of exports minus the value of imports.

Budget Deficit : When government expenditure exceeds government income.



Budget Surplus : When government income exceeds government expenditure.

Business Cycle : The business cycle is the fluctuations in the rate of economic growth that take place in the economy. The peak of the business cycle is usually referred to as a boom, and the trough as a recession or depression.

Cartel : Group of producers who act together to fix price, output or conditions of sale.

Classical Economists : Classical theories revolved mainly around the role of markets in the economy. If markets worked freely and nothing prevented their rapid clearing then the economy would prosper.

Closed Economy : An economy which does not engage in international trade.

Command Economy : The state allocates resources, and sets production targets and growth rates according to its own view of people's wants. The state allocates resources, and sets production targets and growth rates according to its own view of people's wants.

Comparative Advantage : This exists when a country produces a good or service at a lower opportunity cost than its trading partners.

Consumption : Expenditure by households on goods and services which satisfy current wants.

Conversion Rate : The rate at which one currency is converted to another. In a European context it refers to the irrevocable rates between all the currencies taking part in the Euro and the Euro itself. These were set on Jan.1st 1999.



Cost Push Inflation : When a cost of production (e.g. wages) increases and firms put up prices to maintain profits. Cost increases may happen because wages have gone up or because raw material prices have increased. It is important not to muddle cost-push with demand-pull inflation. Cost-push inflation happens when costs have risen independently of demand.

Cross Elasticity of Demand : Measures the responsiveness of demand for good A to a given change in the price of good B. It is an important piece of information to a firm as it helps them to predict how much the demand for their product will change as the price of other goods change.

Current Account Balance : A record of a country's earnings from the sale of visible and invisible items minus its expenditure on visible and invisible items from abroad.

Current Account Deficit : When a country spends more on visible and invisible items from abroad than it earns from the sale of visible and invisible items.

Current Account Surplus : When a country receives more in revenue from the sale of visible and invisible items than it spends on visible and invisible items from abroad.

Cyclical Unemployment : Sometimes called mass or demand deficient unemployment. Workers are without a job because of a lack of aggregate demand due to a down turn in economic activity.

Debt Service : The total amount of interest payments and repayments of principal on external public debt.

Demand for Money : The demand to hold wealth in the form of notes, coins and sight deposits rather than in the form of e.g. government bonds, shares, antiques etc.



Demand Pull Inflation : Occurs when aggregate demand exceeds aggregate supply. If there is an excess level of demand in the economy, this will tend to cause prices to rise. This type of inflation is called demand-pull inflation and is argued by Keynesians to be one of the main causes of inflation. Demand-pull inflation is essentially "too much money chasing too few goods."

Derived Demand : The amount of demand for good A depends in turn on the amount of demand for good B, e.g. an increase in the demand for houses creates a direct demand for bricklayers.

Disposable Income : The amount of income left after such deductions as income tax, pension contributions and national insurance. More generally known as 'take home pay'.

Dumping : The sale of goods in a foreign country at a price below that charged in the home market. This will often be done at below cost price to dispose of surpluses of goods, or to establish markets.

Duopoly : Any market that is dominated by two organisations.

Economic Growth : Typically refers to an increase in a country's output of goods and services. It is usually measured by changes in real GDP.

Elasticity of Demand : The elasticity of demand indicates the responsiveness of demand to a change in a determinate, for instance, price, price of other goods and income.

Elasticity of Supply : The responsiveness of supply to a given change in price.

Embargo : When a ban is placed on the export or import of a certain good or on trade with a particular country or countries.



Entrepreneurship : An entrepreneur is an individual who takes risks and organises the factors of production to generate a product and therefore hopefully profit.

Entrepreneurship is the skill of achieving this. It is often thought of as one of the factors of production. Another term for it is enterprise.

Exchange Rate : The price of one currency in terms of another currency. For example, the exchange rate between the £ and the \$ may be £1=\$1.65. This means that you need to pay a price of £1 to get every \$1.65.

External Debt : The total amount of private and public foreign debt owed by a country.

Externalities : The spillover effects of production or consumption for which no payment is made. Externalities can be positive or negative. For example all fax users gain as new users become connected (positive); and smoke from factory chimneys (negative).

Factors of Production : The factors of production are the resources that are necessary for production. They are usually classified into 4 different groups: • Land - all natural resources (minerals and other raw materials). • Labour-all human resources. • Capital - all man-made aids to production (machinery, equipment and so on). • Enterprise - entrepreneurial ability. The rate of economic growth that an economy can manage will be affected by the quantity and the quality of the factors of production they have.

Quantity Theory of Money : Fisher's equation of exchange states $MV = PT$. M is the money supply; V is the velocity of circulation; P is average prices and T is the number of transactions. The view that changes in the money supply have a direct and proportionate effect on the price level.

Foreign Aid : The international transfer of public and private funds in the form of loans or grants from donor countries to recipient countries.



Foreign Direct Investment : Overseas investment into a country by multinational enterprises. This investment is recorded as a credit in the balance of payments.

Free Good : A good in unlimited supply at zero price, e.g. air.

Free Riders : Sometimes a good is provided and others cannot be stopped from consuming it, e.g. street lighting. A consumer who avoids payment becomes a free rider.

Free Trade : International trade free from any restrictions such as tariffs.

Globalization : The growth of inter-dependence amongst world economies. Usually seen as resulting from the removal of many international regulations affecting financial flows.

Green Economics : The study of environmental issues including the depletion of non renewable resources.

Gross Domestic Product : Gross Domestic Product (GDP) is a measure of National Income. It is the total value of all goods and services produced over a given time period (usually a year) excluding net property income from abroad.

Gross National Product : Gross National Product is a measure of National Income. It is the total value of all goods and services produced over a given time period (usually a year) by the residents of that country regardless of geographical boundaries.

Human Development Index : Introduced by the UN in 1990, the index take into account not only the goods and services produced but also the ability of a population to use these and the time they have to enjoy them. It is a composite index based on real GDP per capita (PPP), life expectancy at birth and educational achievement that measures socio-economic development.



Import Substitution : A government policy when the government attempts to replace imports with domestically produced goods.

Infant Industries : Sunrise industries - that is industries that are at an early stage of their development.

Inflation : The rise in general prices and the reduction in value of money. Inflation is a sustained increase in the general price level. In other words it is the rate at which prices are increasing. It can be measured either monthly, quarterly or annually. It is usually measured by the Retail Price Index.

Invisible Hand : A term coined by Adam Smith who believed that although individuals followed their own interest the greatest benefit to society as a whole is achieved by their being free to do so. Adam Smith argued that the 'invisible hand' would organise markets and ensure that they arrived at the optimum outcome. This would all happen by individuals and firms pursuing their self-interest, yet despite this apparent selfishness, the invisible hand of markets still ensured the best outcome for all concerned.

Involuntary Unemployment : Workers without a job who are willing and able to work at current wage rates.

IS-LM Framework : A model of income determination that integrates the goods market (represented by investment and saving) and the money market (demand and supply of money).

Laffer curve : The Laffer curve is named after Professor Art Laffer who suggested that as taxes increased from fairly low levels, tax revenue received by the government would also increase. However, there would come a point as tax rates where people would not regard it as worth working so hard. This lack of incentives would lead to a fall in income and therefore a fall in tax revenue.



Laissez-Faire : The term "laissez-faire" is used to describe an economic system where the government intervenes as little as possible and leave the private sector to organise most economic activity through markets. Classical economists were great advocates of a laissez-faire system with minimal government intervention. They believed free markets were the best organisers of economic activity.

Life-Cycle Hypothesis : The view that consumption is based on anticipated lifetime income.

Recession : A period of negative economic growth at the trough of the trade cycle. A recession is usually defined as two consecutive quarters of negative economic growth.

Saving Function : How much will be saved at different levels of disposable income.

Say's Law : Say's Law was developed by French economist Jean-Baptiste Say. It states: "Supply creates its own demand" This view is one adopted by classical economists to justify their argument that it is most important to improve the supply-side of the economy through supply-side policies. If this is done then the extra output will be demanded.

Speculative Demand : The desire to hold wealth as money in order to take advantage of changes in the price of bonds or any other asset thought likely to appreciate rapidly.

Total Revenue : The firm's income (total revenue) received from the sale of a given level of output. It is calculated as the price of the good multiplied by the quantity sold.

Absolute Advantage : Exists when a country can produce more of a product per resource unit than another country. It is a basis for trade. A country with an absolute advantage is producing more efficiently than another.



Accelerator : The accelerator theory suggests that the level of net investment will be determined by the rate of change of national income. If national income is growing at an increasing rate then net investment will also grow, but when the rate of growth slows net investment will fall.

Aggregate Demand : Aggregate demand is the total level of demand in the economy. It is the total of all desired expenditure at any time by all groups in the economy. The main groups who spend are consumers (consumption), firms (who spend on investment), government (government expenditure) and overseas (exports). Total aggregate demand is therefore: $AD = C + I + G + (X - M)$ where C = consumption expenditure, I = investment expenditure, G = government expenditure and (X - M) = net exports (exports - imports)

Aggregate Demand Curve : The aggregate demand curve shows the level of aggregate demand at every price level. It will always be downward sloping as there will be less demand at higher price levels.

Aggregate Supply : Aggregate supply is the total of all planned production at each level of prices. Aggregate supply is the total quantity supplied at every price level. It is the total of all goods and services produced in an economy in a given time period.

Aggregate Supply Curve : The aggregate supply curve shows the amount that will be supplied by the firms in the economy at each price level.

Appreciation : The term can be used to refer to the appreciation of a currency. In other words it is when the value of a currency, expressed in terms of another currency, rises.

Average Cost : The amount spent on producing each unit of output. The average cost is calculated by dividing the total level of cost by the level of output.



Liquidity Preference : The desire to hold money in a variety of forms, e.g. as cash, stocks or bonds.

Macroeconomics : The study of the whole economy.

Multiplier : The multiplier is concerned with how national income changes as a result of a change in an injection, for example investment. The multiplier was a concept developed by Keynes that said that any increase in injections into the economy (investment, government expenditure or exports) would lead to a proportionally bigger increase in National Income.

National Income : The value of goods and services created by a country in one year.

Natural Rate of Unemployment : The level of unemployment that is associated with a constant rate of inflation. The natural rate of unemployment is also the level of unemployment that still exists in the economy when the labour market is in equilibrium. This will usually be equivalent to the level of voluntary unemployment as at equilibrium everyone who wants a job has got one.

Normal Goods : Goods to which the general law of demand tends to apply.

Normative Economics : Statements of opinion which cannot be proved or disproved, and suggests what should be done to solve economic problems.

Oligopoly : A market dominated by a very few sellers who account for a large proportion of output.

Perfect Competition : An industry made up of a large number of small firms, each selling homogeneous (identical) products to a large number of buyers.



Price Discrimination : When the same product is sold in different markets for different prices. A firm will only be able to price discriminate where there is separation between the markets. If there is any significant leakage between the markets the price discrimination will break down.

Price Elasticity of Demand : Measures the responsiveness of demand to a given change in price. It is an important piece of information to the firm as it helps them predict how much the demand for their product will change if they change price.

Price Elasticity of Supply : Measures the responsiveness of supply to a given change in price.

Production Possibility Frontier : The combination of two goods a country can make in a given time period with resource fully employed.

Public Goods : Items which can be jointly consumed by many consumers simultaneously without any loss in quantity or quality of provision e.g. a lighthouse.

Supply Curve : A curve showing the relationship between the price of a good and the quantity of the good supplied by producers (firms). The curve is upward sloping due to the higher price being an incentive to supply more. A supply curve can be applied to the individual firm, groups of firms, a market or markets.

Voluntary unemployment : Voluntary unemployment exists when people have chosen not to work because they do not feel that wages at the existing equilibrium are high enough to justify them working.

Open Economy : An economy which engages in international trade.



Opportunity Cost : The decision to produce or consume a product involves giving up another product. The real cost of an action is the next best alternative forgone.

Permanent Income Hypothesis : The permanent income hypothesis was developed by Milton Friedman and it says that people will look at long-run (permanent) income when deciding how much to consume. Where actual income is unusually high people realise this isn't permanent and they will save correspondingly. On the other hand where income is lower they may still consume at a higher level using up savings. In other words Milton Friedman argued that spending is based on average lifetime income.

Phillips Curve : The Phillips Curve was a relationship between unemployment and inflation discovered by Professor A.W.Phillips. He found that there was a trade-off between unemployment and inflation, so that any attempt by governments to reduce unemployment was likely to lead to increased inflation.

Positive Economics : Statements of fact, which can be proved or disproved, and which concern how an economy works.

Potential Output : The output that could be achieved if all resources were to be fully deployed. This concept may be applied to whole economies or to sectors of an economy. Potential output tends to grow each year as technology and productivity improve each year.

Structural Unemployment : Those out of work because of a permanent decline in the demand for an industry's product.

Supply Shock : An unplanned change in supply usually occurring because of changes in weather conditions or an external change outside the control of the company or economy.



Terms of Trade : The relationship between the weighted average price of exports and imports, expressed as an index value.

Total Utility : The amount of satisfaction obtained by consuming units of a good.

Trade Cycle : The tendency of economies to move, over time, through periods of boom and slump, and occurs when real GDP moves away from its trend path. The trade cycle is the fluctuations in the rate of economic growth that take place in the economy. These fluctuations appear to occur around every five years and have probably occurred ever since economies have occurred.

Trade Off : What has to be sacrificed in order to obtain a good, it is equivalent to opportunity cost.

Transaction Demand : The desire to keep money to make every day purchases.

Transfer Payments : Transfer payments are payments for which no good or service is exchanged. In other words, money has simply been transferred from one person in society to another. This includes things like benefits, pensions and lottery payments. A significant proportion of government expenditure is on transfer payments.

Trickle Down Effect : The process whereby the economic gains from economic growth pass down throughout the entire society eventually giving rise to development.

Unemployment : The number of workers without a job who are willing and able to work.

WTO : The World Trade organization replaced GATT in 1995. The World Trade Organization (WTO) is the only international organization dealing with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably and freely as possible.





ECO401 Subjective Material

Question No: 55 (Marks: 3)

According to Keynesian school of thought, what should be the role of government in order to bring the economy out of depression?

Answer No: 55

Keynes introduced demand-pull theory which emphasizes strongly the intervention

of government into economy.

According to him economy may be boosted up by increasing expenditure. In the

initial stage government can inject money in the form of investment and higher wage

rate to the government employees. This will create higher demand which in return

result in more investment by firms.

Question No: 56 (Marks: 5)

In the above figure, suppose the economy is on the horizontal portion of aggregate supply (AS) curve.

a) If government expenditures increase, what will happen to the

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aggregate expenditure line E, aggregate demand curve AD and output level Y.

Answer No: 56 (a)

It will cause more short run demand in the economy and “e” will move to the right

in P-Y space.

It will increase the consumption part of injection as well and “e” will move upward

and right in W.J-Y space.

AD will curve will move to right in P-Y space resulting increasing short run output

“Y”.

b) Is there any multiplier effect? How it works in this case?

Answer No:56 (b)

Yes, multiplier effect exists there.

Keynes multiplier $1/mps$ is the variable which determines the injection level to create an hypothetical desired output.

(Marks: 3+2)

Question No: 57 (Marks: 5)

World Bank suggests some structural reform policies for the poor countries to grow. Discuss those policies briefly.

Answer No: 57

These are also called IMF's Stabilization Policies. These were concluded from neoclassical economics, known since 1990.

The objective of IMF was to ensure both through internal balance (supply=demand, i.e. low inflation, full employment) and external balance (sustainable BOP and external debt position).

The approach was "stabilization" through "demand" management.

There are three tools of this policy as follows!

- Tight Monetary Policy
- Tight Fiscal Policy
- Devaluation

IMF Policies effected LIC's badly. There was a very high criticism on above said

policies. The main points of criticism were as follows!

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- Short-term policy conflicts
- Devaluation could raise prices of imports.
- Demand-reduction policies are anti-growth: increased taxation can stifle the productive sector.
- Stabilization hurts the poor expenditure cuts almost always fall partly on the social sectors.

Question No: 58 (Marks: 10)

Recall the Equation of Quantity theory of money and calculate the missing figure in each of the following cases:

a) Money supply (M) =100, Price (P) = 3 and real output (Q) = 200.

Calculate the missing figure.

Answer No: 58 (a)

$$MV = PQ$$

$$100 \times V = 3 \times 200$$

$$V = 600 / 100$$

$$V = 6$$

b) Velocity of money (V) = 4, Price (P) = 5 and output (Q) = 100.

Calculate the missing figure.

Answer No: 58 (b)

$$MV = PQ$$

$$M \times 4 = 5 \times 100$$

$$M = 500 / 4$$

$$M = 125$$

c) Money supply (M) = 200, velocity of money (V) = 7 and output (Q) = 700. Calculate the missing figure.

Answer No: 58 (c)

$$MV = PQ$$

$$200 \times 7 = P \times 700$$

$$P = 1400 / 700$$

$$P = 2$$

d) Money supply (M) = 150, velocity of money (V) = 8, Price level (P) = 29

3. Calculate the missing value.

Answer No: 58 (d)

$$MV = PQ$$

$$150 \times 8 = 3 \times Q$$

$$Q = 1200 / 3$$

$$Q = 400$$

(Marks: 2.5 each)

Question No: 51 (Marks: 5)

Briefly discuss the private cost of advertising. How we can calculate the marginal social cost?

ANSWER: Private Cost Of Advertising: The private cost of advertising is the

cost incurred by firm in making the advertisement i.e newspaper ads, tv commercials etc. The firms do not take into account the nuisance faced by

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people due to these advertisements otherwise the firms would do less

advertisement.

Marginal Social Cost: Marginal social cost is not a monetary based cost. It is the cost borne by the society as a whole. It is the cost of consumption of one next unit.

Question No: 52 (Marks: 10)

A. What conclusions are derived from exogenous growth theory?

ANSWER: Exogenous Growth Theory: The major conclusions derived from the exogenous growth are as follows:

I The steady growth rate of real GDP depends on exogenous rates of growth of population (n) and technology (t). There are no policies for government for how to affect the steady growth rate of a country. Higher savings can only have a little effect on income it cannot cause long term growth because savings cause diminishing returns to investment and capital accumulation.

I If one country started with lower income and capital than another country, the poorer country will grow faster to catch up the richer country and then both the countries will grow together.

B. What is meant by convergence theory? Explain the convergence theory in the given graph.

(Marks: 4+6)

Question No: 53 (Marks: 10)

Define fiscal policy. Differentiate between contractionary and expansionary fiscal policy. In which situations, budget deficit and budget surplus exist?

Answer: Fiscal Policy: Fiscal policy is the government's about the

- expenditure in form of purchases, subsidies and interest payments on debt etc.

- revenue in form of taxes etc.

Difference between Contractionary and Expansionary Fiscal Policy:

Contractionary Fiscal Policy	Expansionary Fiscal Policy
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In contractionary fiscal policy	
government decreases its expenditure.	
In expansionary fiscal policy	
government increases its expenditure.	
Budget Deficit and Budget Surplus: Budget deficit exists if government expenditure increases the revenue earned. In this case government needs to finance its expenditure through borrowing.	

Budget surplus exists when revenue exceeds the government expenditure. In this condition government can easily pay off its debt borrowings.

(Marks: 2+4+4)

Question No: 54 (Marks: 10)

Discuss the basic theories regarding IMF's stabilization program. Are these theories successful? If not, give reasons.

Answer: IMF's Stabilization Theories:

I Tight Fiscal Policy: It works through higher revenues and reduced government expenditure.

I Devaluation: Switching from imports to home produced goods. It increases competitiveness, exports and increase investors confidence in local currency.

I Tight Monetary Policy: Higher interest rates resulting in reduced private sector consumption and investment demand. It reduces inflation and increases savings. High interest rates also results in higher capital inflow.

These theories are generally not successful in lower income countries (LICs).

Because they caused the problems of:

- Devaluation: It raises the price of imports and also increased the inflation while the real wage rate could not increase.
- Stabilization hurts poor: decrease in expenditure always badly effects the poor which can then cause political instability

Question No: 53 (Marks: 10)

Define M0 and M1. Briefly discuss the three broad motives of holding money.

(Marks:4+6)

Question No: 54 (Marks: 10)

Recall the Equation of Quantity theory of money and calculate the missing figure in each of the following cases:

a) Money supply (M) = 100, Price (P) = 3 and real output (Q) = 200. Calculate the missing figure.

b) Velocity of money (V) = 4, Price (P) = 5 and output (Q) = 100. Calculate the missing figure.

c) Money supply (M) = 200, velocity of money (V) = 7 and output (Q) = 700. Calculate the missing figure.

d) Money supply (M) = 150, velocity of money (V) = 8, Price level (P) = 3. Calculate the missing value. (Marks: 2.5 each)

Question No: 49 (Marks: 3)

Mention the transactions that cause the demand for dollars to increase in the foreign exchange market.

Pakistani imports of US goods.

Pakistani travelers traveling to the US.

Pakistani students paying for study in US universities.

profits repatriated to

US by US firms operating in Pakistan.

Question No: 50 (Marks: 3)

Why countries have comparative advantage according to Ricardo?

Comparative advantage according to Ricardo:

The law of **comparative advantage** refers to the ability of a party (an individual,

a firm, or a country) to produce a particular good or service at a lower opportunity cost than another party. There is a source of comparative advantage

can be productivity differentials. Ricardo argued that there is mutual benefit from

trade (or exchange) even if one party (**e.g. resource rich country, highly-skilled**

artisan) is more productive in every possible area than its trading counterpart

(e.g. resource-poor country, unskilled laborer), as long as each concentrates on

the activities where it has a relative productivity advantage

Question No: 51 (Marks: 5)

A.

"Slope of the consumption function is less than 1". What is meant by this statement?

When we draw in expenditure income space, the consumption function plots as

a straight line with positive intercept, and a positive but less than 1 slope.

The slope is less than 1 because not all the income is consumed some part of the income is saved.

B. What are the major macroeconomic variables involved in the determination of national income?

(Marks: 2+3)

C, I, G, X, M, T, S, prices, exchange rate, interest rate and money supply.

Question No: 52 (Marks: 5)

What are the conditions in which foreign exchange market exists? Also give some examples of foreign exchange markets.

In a market there are buyers and sellers who negotiate and agree on the price for the or price for the commodity being exchanged. The foreign exchange market is no different.

whatever, here the commodity being traded is foreign exchange and the price is the foreign exchange rate. Specifically, a foreign currency is being traded for the Pakistani Ruppee at a particular rate of exchange.

The sellers and buyers of foreign exchange are not mutually exclusive. The sellers of today, may be the buyers of tomorrow, or even of today.

Foreign exchange market exists when **buyers and sellers** exit and ready to sell and buy.

The **main driving force** for foreign exchange market is the law of supply and demand.

Examples are US \$-PAK RS Foreign exchange market

US \$ - UK POUND Foreign exchange market

Question No: 53 (Marks: 5)

What thing determines comparative advantage among countries according to

Hechshcer-Ohlin? What is the criticism against their argument?

According to Hechshcer-Ohlin suppose we are given two countries one abundant in labour and one abundant in capital and a labour-intensive good and a capital intensive good, the labour abundant country will have comparative advantage in the production of the labour-intensive good while the capital abundant country will have comparative advantage in the capital-intensive good. So the determinants of comparative advantage among countries according to Hechshcer-Ohlin is capital goods and labour intensive goods. **Critics argued** that comparative advantage can and should be viewed in a dynamic (time-varying) sense, and that it was not wise to rule out the possibility of Pakistan developing comparative advantage in cars at some future point in time.

Consequent:

The major criticism leveled against Hechscher-Ohlin type trade theories are that they views comparative advantage in an essentially static sense; i.e. if Pakistan is better at producing cotton and Japan better at producing, then this situation will always prevail.

Question No: 49 (Marks: 3)

Define balance of payment (BOP). How the BOP can be determined?

Answer:

A BOP is a sheet in other words an account sheet which is an accounting record of all monetary transactions between a country and the rest of the world. These transactions include Payments for the country's exports and imports of goods, services, and financial capital, as well as financial transfers. The BOP summarizes international transactions for a specific period, usually a year, and is prepared in a single currency, typically the domestic currency for the country concerned.

Surplus items:

Sources of funds for a nation, such as exports or the receipts of loans and investments, are recorded as positive/surplus items.

Deficit items:

Uses of funds, such as for imports or to invest in foreign countries, are recorded as a negative or deficit item.

It can be determined if we see the things in both prespective. In other words it is a

non-complicated way, lets assume that we have two countries Pakistan and united

states and things are viewed from Pakistan point of view.

For this purpose we must now the market for foreign exchange. Foreign exchange

in a Pakistani context means US \$ and in a US point of view it is Pak rupees.

Question No: 50 (Marks: 3)

Explain the shape of money demand curve with the help of diagram.

Answer:

Money demand M_d increases with income levels.

Money demand M_d falls with interest rates.

In this concept we are talking about real income and real interest rate not the nominal income and nominal interest rate.

So this implies to the demand of real money.

Whether nominal and real money supply is equal or not depends much on the

assumption regarding prices. If prices are assumed fixed, then the two are equal,

otherwise not.

As you can see from the diagram where money demand is on the x-axis and income is on the y-axis, and there are various level shown like L_1, L_2, L_3 .

i

Money demand
curve

Y

L_2

- Y

L_1

L3

L

o

Money Demand

Question No: 51 (Marks: 5)

How can a current account, which is in deficit, be restored to balance under fixed exchange rate regimes?

Answer:

There is solution for how can a current account which is in deficit be restored to

balance under fixed exchange rate regimes. The answer is **“Economic Deflation”**

Economic Deflation says When a country’s national income rises, it spends more;

part of that spending falls on imported goods; higher imports cause the current

account to worsen.

The reverse is also true for this lower income must reduce import spending and

therefore improve the current account spending.

However, economic contraction is not a good idea to restore current account equilibrium the other alternative solution presented by economist is to devalue or

“devaluation”.

Devaluation is the phenomena related to exchange rate where exchange rate faces

depreciation but in the context of fixed exchange rates. The complement of devaluation is revaluation.

A concept of devaluation is to bring the exchange rate in line with its long-run

equilibrium level, i.e. a level consistent with international competitiveness.

Competitiveness is simply defined as the real exchange rate RER, where

$RER =$

$(P_f/P_d) * NER$. Where

NER

P_f

Pd

Nominal Exchange rate

is the price level prevailing in the foreign country (US)

is the price level prevailing in the home country (Pakistan).

The formula implies that, for a fixed NET if inflation is higher in Pakistan (relative

to

the US), Pakistani exports will become less attractive in the international market. As

a result, our exports will fall, and current account will go into deficit.

To fix this problem, the NER can be devalued so as to make our goods cheaper and

competitive and it is to bring competitiveness back to its original higher level.

However, there are many provisos attached to the devaluation policy prescription.

Devaluation only works if the country's exports and imports are elastic, otherwise

the price effect of the devaluation will dominate the volume effect and the current

account will worsen. Secondly, the country must have excess productive capacity

in order to meet the higher demand for exports that is created as a result of the

devaluation. Thirdly, the country should not have a very high foreign debt whose

burden increases so much as a result of the devaluation that the negative effects

associated therewith overwhelm any positive competitiveness effects.

Capital account (+ or -)

+

-

+

-

Incoming FDI, FPI or other private capital

Outgoing FDI, FPI or other private capital

Borrowing, aid inflows

Payments of debt principal, aid outflows

Question No: 52 (Marks: 5)

Identify which of the following are stock variables and which are flow variables?

a) Unemployment Stock

b) Redundancies (job lay-offs) Flow

c) Profits Flow

d) A firm's stock market valuation (share price) Stock

e) The value of property after a period of inflation Stock

(Marks: 1 for each)

Question No: 53 (Marks: 5)

World Bank suggests some structural reform policies for the poor countries to

grow. Discuss those policies briefly.

Ans:

World Bank has suggested following policies for the poor countries to grow,

1.

Governance and administrative reforms: To reduce over employment in public sector, reduce wastes and to improve the quality and reliability of public services. To strengthen the administration of taxes, to eliminate the corruption. To

decentralize the control of fiscal policy making. To enrich the legal and regulator framework.

2.

Privatization of state-owned enterprises: Abbreviated as SOEs. These are influenced by political interference and it is one of the reasons SOEs are considered inefficient. SOEs are also suffering from lack of competition, cost awareness and fear of bankruptcy.

3.

Financial liberalization: It involves ending of financial repression policies including artificially low interest rates, credit rationing, restrictions on banking

competition and government involvement in investment allocation

4.

5.

6.

Liberalization of prices, removal of subsidies

Deregulation involving dismantling of licensing systems and red-tape

Trade liberalization: including tariffication of non-tariff-barriers, harmonization of tariffs and an eventual reduction thereof

7.

FDI liberalization: To create a transparent, predictable environment for foreign investors to operate in.

8.

Capital account liberalization: To remove controls on capital flows

These policies are suggested by world bank and the successful implementation of

these policies depend on the political and economic system of poor countries. In

general these policies are expected to provide the poor nation with better understanding and help them to raise their growth.

ECO401 CURRENT PAPERS SUBJECTIVE

Question No: 49 (Marks: 3)

What is meant by exchange rate? Also give example of exchange rate.

Answer:

EXCHANGE RATE:

Rate at which one currency may be converted into another. The exchange rate is used when simply converting one currency to another (such as for the purposes of travel to another country), or for engaging in speculation or trading in the foreign exchange market. There are a wide variety of factors which influence the exchange rate, such as interest rates, inflation, and the state of politics and the economy in each country. **also called** rate of exchange or foreign exchange rate or currency exchange rate.

EXAMPLE:

An exchange rate of 123 Japanese yen (JPY, ¥) to the United States dollar

(USD, \$) means that JPY 123 is worth the same as USD 1.

Question No: 50 (Marks: 3)

What is the reason of poverty in developing countries according to Prebisch-Singer hypothesis?

ANSWER:

POVERTY means the state of being poor; lack of the means of providing material needs or comforts.

According to Prebisch-Singer hypothesis following are the reason of poverty in developing countries:

- One of the reason for poverty is increasing population.
- Another reason **Lack of precious natural resources (like oil, gold, gas, iron, copper etc.)** was also cited by some as the reason for LICs' continued poverty.

Question No: 51 (Marks: 5)

According to the values given in the following table, calculate the injections at each level of output.

Output (Y)	Saving (S)	Gross Imports (M)	Gross investment (I)	Gross exports (X)	Govt. Expenditures (G)	Taxes (T)
650	80	80	104	97	116	10
700	90	80	119	97	116	10
750	100	80	130	97	116	10
800	110	80	139	97	116	10
900	120	80	146	97	116	10

(Marks: 1 for each)

ANSWER:

We know:

INJECTION=I+X+G

SO,

the injections at each level of output=

1-317

2-332

3-343

4-352

5-359

Question No: 52 (Marks: 5)

What are the major weaknesses of exogenous growth theory? Which theory was developed in against of exogenous growth theory?

ANSWER:

EXOGENOUS GROWTH THEORY:

The Exogenous growth model, also known as the Neo-classical growth model or Solow growth model is a term used to sum up the contributions of various authors to a model of long-run economic growth within the framework of neoclassical economics.

Exogenous growth theory suffered from three major weaknesses:

- i.** It could not explain why the gap between the poor and rich countries had widened (anticatch up),
- ii.** It could not explain why some countries in East Asia had apparently grown consistently on the back of higher saving rates, and
- iii.** It modeled technology as exogenous, and beyond the influence of policy.

PART B SOLUTION:

In economics, **endogenous growth theory** or **new growth theory** was developed in the 1980s as a response to criticism of the neo-classical growth model OR exogenous growth theory

Question No: 53 (Marks: 5)

Discuss the components on the assets and liabilities side of the balance sheet of a central bank.

ANSWER:

Following are the components on the assets and liabilities side of the balance sheet of a central bank

ASSET SIDE COMPONENTS:

- Loans to Govt Notes
- Forex reserves
- Loans to private sector

LIABILITY SIDE COMPONENTS:

- Notes, coins & currency in circulation
- Govt & commercial bank deposits
- Liquidity paper issued

Question No: 49 (Marks: 3)

Define balance of payment (BOP). How the BOP can be determined?

ANSWER:

THE BALANCE OF PAYMENTS (BOP):

BOP is an accounting record of a country's transactions with the rest of the world.

The balance of payments (or BOP) measures the payments that flow between any individual country and all other countries. It is used to summarize all international economic transactions for that country during a specific time period, usually a year.

PART B SOLUTION:

How the BOP can be determined?

IT CAN BE DETERMINED IN THE FOLLOWING WAY:

The BOP is determined by the country's exports and imports of goods, services, and financial capital, as well as financial transfers. It reflects all payments and liabilities to foreigners (debits) and all payments and obligations received from foreigners (credits).

Balance of payments is one of the major indicators of a country's status in international trade, with net capital outflow.

Question No: 50 (Marks: 3)

Explain the shape of money demand curve with the help of diagram.

Answer:

PERFECT ANSWER ON THIS LINK IS AVAILABLE SEE THIS(PG 9 AND PG 10)

http://www.ssc.wisc.edu/~ldrozd/my_files/102files/slides_9.pdf

Question No: 51 (Marks: 5)

How can a current account, which is in deficit, be restored to balance under fixed exchange rate regimes?

Answer:

There is solution for how can a current account which is in deficit be restored to balance under fixed exchange rate regimes. The answer is

“Economic Deflation”

Economic Deflation says When a country’s national income rises, it spends more; part of that spending falls on imported goods; higher imports cause the current account to worsen.

The reverse is also true for this lower income must reduce import spending and therefore improve the current account spending.

However, economic contraction is not a good idea to restore current account equilibrium the other alternative solution presented by economist is to devaluate or “devaluation”.

Devaluation is the phenomena related to exchange rate where exchange rate faces depreciation but in the context of fixed exchange rates. The complement of devaluation is revaluation.

A concept of devaluation is to bring the exchange rate in line with its long-run equilibrium level, i.e. a level consistent with international competitiveness.

Question No: 52 (Marks: 5)

Identify which of the following are stock variables and which are flow variables?

these are the terms used to differentiate things like "wealth versus income" or

"debt versus deficit."

That is, a "stock variable" is a variable measurable at one particular time (wealth); whereas, a "flow variable" is a variable measured after a prolonged amount of time retrospectively spending in the past "x" amount of time (income).

- a) **Unemployment**
- b) **Redundancies (job lay-offs)**
- c) **Profits**
- d) **A firm's stock market valuation (share price)**
- e) **The value of property after a period of inflation**

(Marks: 1 for each)

ANSWER:

DEFINITION IS JUST FOR CONCEPT NOT THE ANSWER.

These are the terms used to differentiate things like "wealth versus income" or "debt versus deficit."

That is, a "stock variable" is a variable measurable at one particular time (wealth); whereas, a "flow variable" is a variable measured after a prolonged amount of time retrospectively spending in the past "x" amount of time (income).

REQUIRED ANSWER:

FOLLOWING ARE THE STOCK VARIABLES:

- Unemployment
- A firm's stock market valuation (share price)
- The value of property after a period of inflation
-

FOLLOWING ARE THE FLOW VARIABLES:

- Redundancies (job lay-offs)
- Profits

Question No: 53 (Marks: 5)

World Bank suggests some structural reform policies for the poor countries to grow. Discuss those policies briefly.

Ans:

World Bank has suggested following policies for the poor countries to grow,

Governance and administrative reforms:

To reduce over employment in public sector, reduce wastes and to improve the quality and reliability of public services. To strengthen the administration of taxes, to eliminate the corruption. To decentralize the control of fiscal policy making. To enrich the legal and regulator framework.

Privatization of state-owned enterprises:

Abbreviated as SOEs. These are influenced by political interference and it is one of the reasons SOEs are considered inefficient. SOEs are also suffering from lack of competition, cost awareness and fear of bankruptcy.

Financial liberalization:

It involves ending of financial repression policies including artificially low interest rates, credit rationing, restrictions on banking competition and government involvement in investment allocation

Deregulation involving dismantling of licensing systems and red-tape

Trade liberalization:

including tariffication of non-tariff-barriers, harmonization of tariffs and an eventual reduction thereof

FDI liberalization:

To create a transparent, predictable environment for foreign investors to operate in.

Capital account liberalization:

To remove controls on capital flows

(These policies are suggested by world bank and the successful implementation of these policies depend on the political and economic system of poor countries. In general these policies are expected to provide the poor nation with better understanding and help them to raise their growth.)

Question No: 50 (Marks: 3)

Differentiate between international trade and international finance.

ANSWER:

By international trade, we mean the exchange of goods and services between different countries.

International trade is the trade between two or more different countries. It is just the opposite of the trade that takes place within a country i.e. national trade.

Whereas **International finance** is concerned with, among other things, the mobility of financial capital across countries, and the problems and opportunities this mobility presents individual countries with. It would not be too inaccurate (in present day context) to say that while international trade deals with the current account, international finance deals with the capital account of the BOPs. That said, issues like the choice of exchange rate regime and of modern-day balance of payments crises also fall firmly within the purview of international finance.

Question No: 51 (Marks: 5)

Discuss the components on the assets and liabilities side of the balance sheet of a central bank.

ANSWER:

Following are the components on the assets and liabilities side of the balance sheet of a central bank

ASSET SIDE COMPONENTS:

- Loans to Govt
- Notes
- Forex reserves
- Loans to private sector

LIABILITY SIDE COMPONENTS:

- Notes, coins & currency in circulation
- Govt & commercial bank deposits
- Liquidity paper issued

Question No: 53 (Marks: 5)

If $y = Y / L$, where, Y = Total GDP, L = Population, y = Per capita GDP then prove that Growth rate of per capita income = Growth rate of total output - Growth rate of population

ANSWER:

$$y = Y / L$$

Where,

- Y = Total GDP
- L = Population
- y = Per capita GDP

Taking log of both sides

$$\ln y = \ln Y - \ln L$$

Taking derivative w.r.t. time

$$1/y (dy/dt) = (dY/dt)/Y - (dL/dt)/L$$

$$gy = gY - gL$$

**Growth rate of per capita income = Growth rate of total output -
Growth rate of population**

REFERENCE:

CHP NO 38 PAGE NO 168

Question No: 49 (Marks: 3)

Differentiate between inflation and deflation.

ANSWER:

Inflation is a situation in which there is a continuous rise in the general price level.

WHEREAS **Deflation** is the

opposite of inflation and occurs when the general level of prices falls.

Inflation is when the money supply increases by more than the real economy does. This means that one unit of currency will buy less than it could in the past.

Deflation is when the money supply contracts, making a unit of currency able to buy more than it could in the past. This is the exact opposite of inflation, but it is also bad.

Question No: 50 (Marks: 3)

What are the reasons that poor countries remained poor?

Question No: 51 (Marks: 5)

Explain the difference between endogenous growth model and exogenous growth model.

Question No: 52 (Marks: 5)

EXOGENOUS GROWTH THEORY

The Exogenous growth model, also known as the Neo-classical growth model or Solow growth model is a term used to sum up the contributions of various authors to a model of long-run economic growth within the framework of neoclassical economics

ENDOGENOUS GROWTH THEORY

In economics, **endogenous growth theory** or **new growth theory** was developed in the 1980s as a response to criticism of the neo-classical growth model. In neoclassical growth models, the long-run rate of growth is exogenously determined by assuming a savings rate (the Solow model) or a rate of technical progress. This does not explain the origin of growth, which makes the neo-classical model appear very unrealistic. Endogenous growth theorists see this as an over-simplification

Following table shows different stages of production of cloth. Calculate the value added at each stage of production. What is GDP by this approach?

Stage of production	Money value (Rs)	Value added at each stage (Rs)
Raw cotton	10.50	?
Cotton yarn	25.68	?
Coarse cloth	45.82	?
Finished cloth	55.66	?

ANSWER:

Stage of production	Money value (Rs)	Value added at each stage (Rs)
Raw cotton	10.50	10.50
Cotton yarn	25.68	15.18

Coarse cloth	45.82	20.14
Finished cloth	55.66	9.84

REFERENCE

METHODS OF MEASURING GDP

There are three equivalent ways of measuring GDP:

i. The product or value added method which sums the value added by all the productive entities in the economy;

ii. The expenditure method which sums up the value of all the “final goods” transactions taking place in the economy;

iii. The factor income method which sums up all the incomes earned by all the factors of production in the economy (rent for land, wages for labour, interest for capital, and equity returns for entrepreneurship).

Value added is the difference between the value of goods produced and the cost of materials and supplies used in producing them. Value added consists of the wages, interest and profit components added to the output by a firm. Value added is the difference between inputs and outputs e-g if a firm spends Rs.500 making a good (inputs) and sells its product (output) for Rs.750, then value added is Rs.250.

Question No: 53 (Marks: 5)

Discuss the equilibrium condition in money market. Explain this equilibrium condition with the help of diagram.

ANSWER= CHP NO 43

Question No: 49 (Marks: 3)

It is said that growth is an important macroeconomic issue. Why?

Discuss.

ANSWER:

Why Growth is an Important Macroeconomic Issue:

It is obvious why growth is an important macroeconomic issue. Every government aspires to deliver a higher growth rate for the country. High growth rates means higher national income which means better living standards on average, which in democracies, means happier electorates and therefore increased chances of re-election for another term in office. However, while all countries might wish to achieve high growth rates, in practice, only a handful have been able to convert the wish into reality.

Question No: 50 (Marks: 3)

What are the different borrowing options available to the government for reducing the fiscal deficit?

By borrowing locally (i.e. issuing bonds), foreign financing (including non-repayable grants) or printing money (i.e. borrowing from the central bank). The first of these methods is least inflationary while the last one is most inflationary.

Question No: 52 (Marks: 5)

Differentiate between fixed exchange rate and floating exchange rate.

ANSWER:

Fixed exchange rate:

.A fixed exchange rate means the amount of currency received is set in advance.

A fixed exchange rate is based upon the government's view of the value of its currency as well as the monetary policy. It has advantages. Stability is one. Another is predictability. Businesses and individuals can plan their activities with the certainty of the value of money. A businessman shipping goods overseas knows the value in advance. A tourist travelling in other countries can budget knowing what his money will buy.

Floating exchange rates:

A floating exchange rate means that the rate is moving and the currency received depends on the time of the exchange

.The floating exchange rate, in its true form, allows the marketplace to set the rate. The forces of supply and demand determine the value of a currency.

For example, when the US dollar is considered strong it will take more euros, the currency of most European countries, to buy. When the US dollar is considered weak or in decline the amount of euros needed to buy it will fall.

Question No: 53 (Marks: 5)

Some economists suggest “growth through trade strategy” to tackle the problem of poverty of under developed countries.

- a) What is the basic theme of this strategy?
- b) Why this strategy is not so much successful?
- c) What is the proposed solution presented to tackle the drawback of this strategy?

Question No: 49 (Marks: 3)

Mention the transactions that cause the demand for dollars to increase in the foreign exchange market.

Pakistani imports of US goods.

Pakistani travelers traveling to the US.

Pakistani students paying for study in US universities.

profits repatriated to

US by US firms operating in Pakistan.

Question No: 50 (Marks: 3)

Why countries have comparative advantage according to Ricardo?

ANSWER:

Comparative advantage according to Ricardo:

The law of **comparative advantage** refers to the ability of a party (an individual, a firm, or a country) to produce a particular good or service at a lower opportunity cost than another party. There is a source of comparative advantage can be productivity differentials. Ricardo argued that there is mutual benefit from trade (or exchange) even if one party (**e.g. resource rich country, highly-skilled artisan**) is more productive in every possible area than its trading counterpart (e.g. resource-poor country, unskilled laborer), as long as each concentrates on the activities where it has a relative productivity advantage

Question No: 51 (Marks: 5)

A.

"Slope of the consumption function is less than 1".What is meant by this statement?

ANSWER:

When we drawn in expenditure income space, the consumption function plots as a straight line with positive intercept, and a positive but less than 1 slope. The slope is less than 1 because not all the income is consumed some part of the income is saved.

B. What are the major macroeconomic variables involved in the determination of national income?

(Marks: 2+3)

Following are the major macroeconomic variables involved in the determination of national income :

C, I, G, X, M, T, S, prices, exchange rate, interest rate and money supply.

Question No: 52 (Marks: 5)

What are the conditions in which foreign exchange market exists? Also give some examples of foreign exchange markets.

In a market there are buyers and sellers who negotiate and agree on the price for the or price for the commodity being exchanged. The foreign exchange market is no different.

whatever, here the commodity being traded is foreign exchange and the price is the foreign exchange rate. Specifically, a foreign currency is being traded for the Pakistani Ruppee at a particular rate of exchange.

The sellers and buyers of foreign exchange are not mutually exclusive. The sellers of today, may be the buyers of tomorrow, or even of today.

CONDITION:

Foreign exchange market exists when **buyers and sellers** exit and ready to sell and buy.

The **main driving force** for foreign exchange market is the law of supply and demand.

EXAMPLE:

US \$-PAK RS Foregin exchange market

US \$ - UK POUND Foregin exchange market

Question No: 53 (Marks: 5)

What thing determines comparative advantage among countries according to Hechshcer-Ohlin? What is the criticism against their argument?

According to Hechshcer-Ohlin suppose we are given two countries one abundant

in labour and one abundant in capital and a labour-intensive good and a capital intensive

good, the labour abundant country will have comparative advantage in the production of the labour-intensive good while the capital abundant country will have comparative advantage in the capital-intensive good.

So the determinants of comparative advantage among countries according to Hechshcer-Ohlin is capital goods and labour intensive goods.

Critics argued that comparative advantage can and should be viewed in a dynamic (time-varying) sense, and that it was not wise to rule out the possibility of Pakistan developing comparative advantage in cars at some future point in time.

Consequent:

The major criticism leveled against Hechscher-Ohlin type trade theories are that they views

comparative advantage in an essentially static sense; i.e. if Pakistan is better at producing

cotton and Japan better at producing, then this situation will always prevail.

Question No: 49 (Marks: 3)

Differentiate between inflation and deflation.

ANSWER:

Inflation is a situation in which there is a continuous rise in the general

price level.

WHEREAS **Deflation** is the

opposite of inflation and occurs when the general level of prices falls.

Inflation is when the money supply increases by more than the real economy does. This means that one unit of currency will buy less than it could in the past.

Deflation is when the money supply contracts, making a unit of currency able to buy more than it could in the past. This is the exact opposite of inflation, but it is also bad.

(Marks: 5)

What is meant by Philips Curve? Explain the shape of this curve with the help of diagram.

Philips Curve

W.A.Philips gave the idea of Keynes a formalized shape and draws the Philips curve stating inverse relationship between unemployment and inflation rate.

Philips's views were consistent with the Keynesian views. The cost of reducing inflation is unemployment and the cost of reducing unemployment is inflation

DIAGRAM

For diagram take a look on chp#34 page no 149.

(I DON,T HV MICROSOFT WORD IN MY PC THATS Y GRPAH CAN,T BE DRAW HERE)

Question No: 53 (Marks: 5)

How crowding out of investment demand occur due to expansionary fiscal policy?

ANSWER CAN BE:

In economics, **crowding out** is any reduction in private consumption or investment that occurs because of an increase in government spending. If the increase in government spending is financed by a tax increase, the tax increase would tend to reduce private consumption. If instead the increase in government spending is not accompanied by a tax increase, government borrowing to finance the increased government spending would increase

interest rates, leading to a reduction in private investment, although there is no empirical evidence that supports such interest rate effect on investment

1. Comments of current account in balance of payment 3 marks

ANSWER:

THE CURRENT ACCOUNT

The current account balance is essentially the trade balance (exports minus imports), but with net factor receipts from abroad added.

If the exchange rate is fixed, then changes in reserves must mirror the combined balance on the current and capital accounts in order to bring the overall BOPs to zero. If the exchange rate is floating, then changes to reserves can remain zero, as the adjustment burden is borne by the exchange rate which appreciates (depreciates) in response to a joint surplus (deficit) on the current and capital accounts.

REFERENCE FOR COMPLETE CONCEPT:

PARTS OF BOP

The BOPs can be divided into three parts:

- i. Current account,
- ii. Capital account and
- iii. Changes to reserves

2. The reason of poverty in developing countries according Perbisch-Singer Hypothesis (3 marks)

ANSWER:

POVERTY means the state of being poor; lack of the means of providing material needs or comforts.

According to Prebisch-Singer hypothesis following are the reason of poverty in developing countries:

- One of the reason for poverty is increasing population.
- Another reason **Lack of precious natural resources (like oil, gold, gas, iron, copper etc.)** was also cited by some as the reason for LICs' continued poverty.

3. Pull demand inflation, cost push inflation (5 marks)

ANSWER:

DEMAND PULL INFLATION:

The inflation resulting from an increase in aggregate demand is called **demand-pull inflation**. Such an inflation may arise from any individual factor that increases aggregate demand, but the main ones that generate *ongoing* increases in aggregate demand are :

Increases in the money supply

Increases in government purchases

Increases in the price level in the rest of the world

COST PUSH INFLATION:

Inflation can result from a decrease in aggregate supply. The two main sources of decrease in aggregate supply are

- An increase in wage rates
- An increase in the prices of raw materials

These sources of a decrease in aggregate supply operate by increasing costs, and the resulting inflation is called **cost-push inflation**.

4. What are the comparative advantages between countries according Hechshcer-Ohlin? And criticisms against it.

ANSWER:

According to Hechshcer-Ohlin suppose we are given two countries one abundant

in labour and one abundant in capital and a labour-intensive good and a capital intensive

good, the labour abundant country will have comparative advantage in the production of the labour-intensive good while the capital abundant country will have comparative advantage in the capital-intensive good.

So the determinants of comparative advantage among countries according to Hechshcer-Ohlin is capital goods and labour intensive goods.

Critics argued that comparative advantage can and should be viewed in a dynamic (time-varying) sense, and that it was not wise to rule out the

possibility of Pakistan developing comparative advantage in cars at some future point in time.

Consequent:

The major criticism leveled against Heckscher-Ohlin type trade theories are that they views comparative advantage in an essentially static sense; i.e. if Pakistan is better at producing cotton and Japan better at producing, then this situation will always prevail

1.components of current account of BOPS:

ANSWER:

Following are the components:

- 1.GOODS
- 2.SERVICES
- 3.INCOME
- 4.CURRENT ACCOUNT.

(FOR COMPLETE UNDERSTANDING AND MORE COMPONENTS VISIT THIS LINK)

<http://www.investopedia.com/articles/03/061803.asp>

:

1. Difference between capital deepening and capital widening(5 MARKS)

ANSWER:

Capital deepening

is a term used in economics to describe an economy where capital per worker is increasing. It is an increase in the capital intensity. Capital deepening is often measured by the capital stock per labour hour. Overall, the economy will expand, and productivity per worker will increase. However, economic expansion will not continue indefinitely through capital deepening alone. This is partly due to diminishing returns and wear & tear

capital widening:

is a term used to describe the situation where capital stock is increasing at the

same rate as the labour force, thus capital per worker remains constant. The economy will expand in terms of aggregate output, but productivity per worker will remain constant

2 .Difference between GNP and NNP:(5 MARKS)

ANSWER:

Gross National Product (GNP):

Gross national product (GNP) is the value, at current market prices, of all final goods and services produced during a year by the factors owned by the citizens of a country. Thus the income earned by Pakistani citizens working in the US would be included in Pakistan's GNP but excluded from Pakistan's GDP. Conversely, the income earned by a US citizen (individual or corporate) in Pakistan would be included in Pakistan's GDP but excluded from Pakistan's GNP. Generally, $GNP = GDP + \text{net factor income from abroad}$. The abbreviation for gross national product, which is the total market value of all goods and services produced by the citizens of an economy during a given period of time, usually one year. Gross national product often was once the federal government's official measure of how much output our economy produces.

$GNP = GDP + \text{Net factor incomes from abroad}$

Net National Product (NNP):

Mathematically, national income is net national product (NNP). It is GNP adjusted for depreciation. In words, it is the net output of commodities and services flowing during the year from the country's production system in the hands of ultimate consumers. The total market value of all final goods and services produced by citizens of an economy during a given period of time, usually a year, after adjusting for the depreciation of capital. Net national product, abbreviated NNP, has the same relation to net domestic product (NDP) as gross national product (GNP) has to gross

domestic product (GDP). Net national product also has the same relation to gross national product that net domestic product has to gross domestic product. Like NDP, NNP is a measure of the net production in the economy.

NNP = GNP – Depreciation allowance

3. Explain Comparative advantage among countries according to Heckscher-Ohlin. And criticism on it?

ANSWER:

According to Heckscher-Ohlin suppose we are given two countries one abundant in labour and one abundant in capital and a labour-intensive good and a capital intensive good, the labour abundant country will have comparative advantage in the production of the labour-intensive good while the capital abundant country will have comparative advantage in the capital-intensive good. So the determinants of comparative advantage among countries according to Heckscher-Ohlin is capital goods and labour intensive goods.

Critics argued that comparative advantage can and should be viewed in a dynamic (time-varying) sense, and that it was not wise to rule out the possibility of Pakistan developing comparative advantage in cars at some future point in time.

Consequent:

The major criticism leveled against Heckscher-Ohlin type trade theories are that they views comparative advantage in an essentially static sense; i.e. if Pakistan is better at producing cotton and Japan better at producing, then this situation will always prevail.

Q # 1 Difference between inflation and deflation? Marks 3

ANSWER:

Inflation is a situation in which there is a continuous rise in the general price level.

WHEREAS **Deflation** is the opposite of inflation and occurs when the general level of prices falls.

Inflation is when the money supply increases by more than the real economy does. This means that one unit of currency will buy less than it

could in the past.

Deflation is when the money supply contracts, making a unit of currency able to buy more than it could in the past. This is the exact opposite of inflation, but it is also bad.

Q # 2 How the central banks plays its important role in order to control the activities of commercial banks? Marks 3

central bank, reserve bank, or monetary authority is a banking institution granted the exclusive privilege to lend a government its currency. Like a normal commercial bank, a central bank charges interest on the loans made to borrowers, primarily the government of whichever country the bank exists for, and to other commercial banks, typically as a 'lender of last resort'. However, a central bank is distinguished from a normal commercial bank because it has a monopoly on creating the currency of that nation, which is loaned to the government in the form of legal tender. It is a bank that can lend money to other banks in times of need. Its primary function is to provide the nation's money supply,

Q # 3 Difference between depreciation and appreciation of currency? Marks 5

ANSWER:

Depreciation:

This is a more or less permanent decrease in value or price. "More or less permanent" doesn't include temporary, short-term drops in price that are common in many markets. It's only those price declines that reflect a reduction in consumer satisfaction. While all sorts of stuff can depreciate in value, some of the more common ones are capital, real estate, corporate stock, and money

APPRECIATION

This is a more or less permanent increase in value or price. "More or less permanent" doesn't include temporary, short-term jumps in price that are common in many markets. Appreciation is only those price increases that reflect greater consumer satisfaction and thus value.

While all sorts of stuff can appreciate in value, some of the more common ones are real estate, works of art, corporate stock, and money.

Q # 4 what is meant by laffer curve? Also explain the shape of this curve? Marks 5

ANSWER:

The graphical inverted-U relation between tax rates and total tax collections by government is known as

Laffer curve. This curve is developed by economist Arthur Laffer; the Laffer curve formed a key theoretical foundation for supply-side economics of President Reagan during the 1980s. It is based on the notion that government collects zero revenue if the tax rate is 0% and if the tax rate is 100%. At a 100% tax rate no one has the incentive to work, produce, and earn income, so there is no income to tax.

As such, the optimum tax rate, in which government revenue is maximized, lies somewhere between 0%

and 100%. This generates a curve shaped like an inverted U, rising from zero to a peak, and then falling

back to zero. If the economy is operating to the right of the peak, then government revenue can be

increased by decreasing the tax rate.

(AGAIN FOR DIAGRAM VISIT PAGE NO 175 OF CHP # 40)

A slope of consumption function is less than 1." What is meant by this statement?

ANSWER:

When we drawn in expenditure income space, the consumption function plots as a straight line with positive intercept, and a positive but less than 1 slope. The slope is less than 1 because not all the income is consumed some part of the income is saved.

Differentiate between Inflation and deflation.

Marks3

ANSWER:

Inflation is a situation in which there is a continuous rise in the general price level.

WHEREAS **Deflation** is the

opposite of inflation and occurs when the general level of prices falls.

Inflation is when the money supply increases by more than the real economy does. This means that one unit of currency will buy less than it could in the past.

Deflation is when the money supply contracts, making a unit of currency able to buy more than it could in the past. This is the exact opposite of inflation, but it is also bad

Question No: 49 (Marks: 3)

Define balance of payment (BOP). How the BOP can be determined?

Answer:

A BOP is a sheet in other words an account sheet which is an accounting record of all monetary transactions between a country and the rest of the world.

These transactions include

→ Payments for the country's exports and imports of goods, services, and financial capital, as well as financial transfers.

The BOP summarizes international transactions for a specific period, usually a year, and is prepared in a single currency, typically the domestic currency for the country concerned.

Surplus items:

Sources of funds for a nation, such as exports or the receipts of loans and investments, are recorded as positive/surplus items.

Deficit items:

Uses of funds, such as for imports or to invest in foreign countries, are recorded as a negative or deficit item.

It can be determined if we see the things in both perspective. In other words it is a non-complicated way, let's assume that we have two countries Pakistan and United States and things are viewed from Pakistan point of view.

For this purpose we must now the market for foreign exchange. Foreign exchange in a Pakistani context means US \$ and in a US point of view it is Pak rupees.

Question No: 50 (Marks: 3)

Explain the shape of money demand curve with the help of diagram.

Answer:

Money demand M_d increases with income levels.

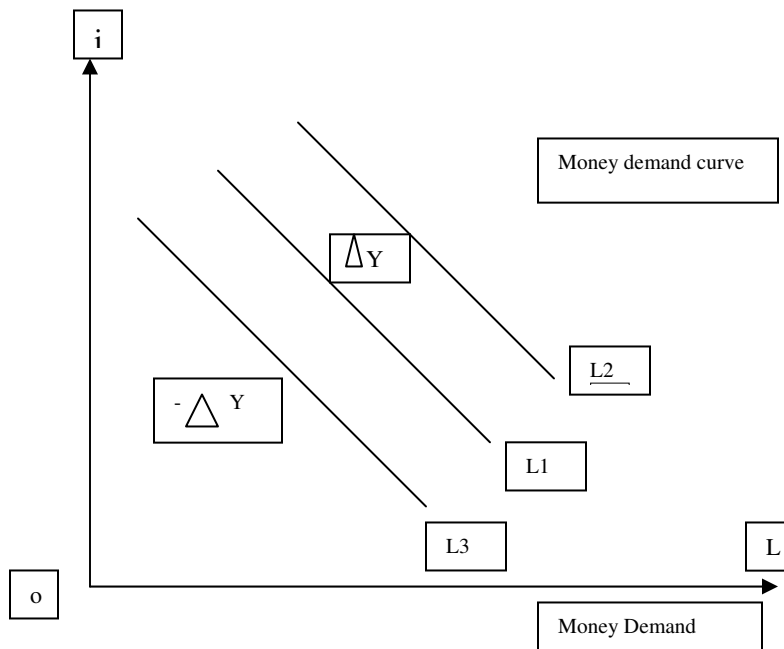
Money demand M_d falls with interest rates.

In this concept we are talking about real income and real interest rate not the nominal income and nominal interest rate.

So this implies to the demand of real money.

Whether nominal and real money supply is equal or not depends much on the assumption regarding prices. If prices are assumed fixed, then the two are equal, otherwise not.

As you can see from the diagram where money demand is on the x-axis and income is on the y-axis, and there are various levels shown like L_1, L_2, L_3 .



Question No: 51 (Marks: 5)

How can a current account, which is in deficit, be restored to balance under fixed exchange rate regimes?

Answer:

There is solution for how can a current account which is in deficit be restored to balance under fixed exchange rate regimes. The answer is **“Economic Deflation”**

Economic Deflation says When a country’s national income rises, it spends more; part of that spending falls on imported goods; higher imports cause the current account to worsen.

The reverse is also true for this lower income must reduce import spending and therefore improve the current account spending.

However, economic contraction is not a good idea to restore current account equilibrium the other alternative solution presented by economist is to devalue or “devaluation”.

Devaluation is the phenomena related to exchange rate where exchange rate faces depreciation but in the context of fixed exchange rates. The complement of devaluation is revaluation.

A concept of devaluation is to bring the exchange rate in line with its long-run equilibrium level, i.e. a level consistent with international competitiveness.

Competitiveness is simply defined as the real exchange rate RER, where $RER = (P_f/P_d) * NER$. Where

NER → Nominal Exchange rate

P_f → is the price level prevailing in the foreign country (US)

P_d → is the price level prevailing in the home country (Pakistan).

The formula implies that, for a fixed NET if inflation is higher in Pakistan (relative to the US), Pakistani exports will become less attractive in the international market. As a result, our exports will fall, and current account will go into deficit.

To fix this problem, the NER can be devalued so as to make our goods cheaper and competitive and it is to bring competitiveness back to its original higher level. However, there are many provisos attached to the devaluation policy prescription.

Devaluation only works if the country's exports and imports are elastic, otherwise the price effect of the devaluation will dominate the volume effect and the current account will worsen. Secondly, the country must have excess productive capacity in order to meet the higher demand for exports that is created as a result of the devaluation. Thirdly, the country should not have a very high foreign debt whose burden increases so much as a result of the

devaluation that the negative effects associated therewith overwhelm any positive competitiveness effects.

Capital account (+ or -)

- + → Incoming FDI, FPI or other private capital
- → Outgoing FDI, FPI or other private capital
- + → Borrowing, aid inflows
- → Payments of debt principal, aid outflows

Question No: 52 (Marks: 5)

Identify which of the following are stock variables and which are flow variables?

- a) **Unemployment**→Stock
 - b) **Redundancies (job lay-offs)**→Flow
 - c) **Profits**→Flow
 - d) **A firm's stock market valuation (share price)**→Stock
 - e) **The value of property after a period of inflation**→Stock
- (Marks: 1 for each)**

Question No: 53 (Marks: 5)

World Bank suggests some structural reform policies for the poor countries to grow. Discuss those policies briefly.

Ans:

World Bank has suggested following policies for the poor countries to grow,

1. **Governance and administrative reforms:** To reduce over employment in public sector, reduce wastes and to improve the quality and reliability of public services. To strengthen the administration of taxes, to eliminate the corruption. To decentralize the control of fiscal policy making. To enrich the legal and regulator framework.
2. **Privatization of state-owned enterprises:** Abbreviated as SOEs. These are influenced by political interference and it is one of the reasons

SOEs are considered inefficient. SOEs are also suffering from lack of competition, cost awareness and fear of bankruptcy.

3. **Financial liberalization:** It involves ending of financial repression policies including artificially low interest rates, credit rationing, restrictions on banking competition and government involvement in investment allocation
4. **Liberalization of prices, removal of subsidies**
5. **Deregulation involving dismantling of licensing systems and red-tape**
6. **Trade liberalization:** including tariffication of non-tariff-barriers, harmonization of tariffs and an eventual reduction thereof
7. **FDI liberalization:** To create a transparent, predictable environment for foreign investors to operate in.
8. **Capital account liberalization:** To remove controls on capital flows

These policies are suggested by world bank and the successful implementation of these policies depend on the political and economic system of poor countries. In general these policies are expected to provide the poor nation with better understanding and help them to raise their growth.



ECO401 Short Notes Lectures 1 ~ 22 Objective Type

By

<http://vustudents.ning.com>

✚ What is Economics?

“Economics is the study of how we the people engage ourselves in production, distribution and consumption of goods and services in a society.”

✚ Normative economics:

Normative economics refers to value judgments, e.g. what “ought” to be the goals, of public policy. Normative statements cannot be tested.

✚ Positive Economics:

The analysis of facts and behavior in an economy OR “the way things are.”

✚ Goods

Are the things which are produced to be sold.

✚ Services

Involve doing something for the customers but not producing goods.

✚ Factors of production:

Factors of production are inputs into the production process. The factors of production are:

- • **Land** includes the land used for agriculture or industrial purposes as well as Natural resources taken from above or below the soil
- • **Capital** consists of durable producer goods (machines, plants etc.) that are in Turn used for production of other goods
- • **Labor** consists of the manpower used in the process of production.
- • **Entrepreneurship** includes the managerial abilities that a person brings to the Organization Entrepreneurs can be owners or managers of firms.

✚ Scarcity:

Shortage of resources because economic resources are unable to supply all the goods demanded.

✚ Rationing

A process by which we limit the supply or amount of some economic factor which is scarcely available

Economic Systems:

A free market/capitalist economy is a system in which the questions about what to produce, how to produce and for whom to produce are decided primarily by the demand and supply interactions in the market.

Dictatorship:

A system in which economic decisions are taken by the dictator which may be an individual or a group of selected people

Command or planned economy:

A mode of economic organization in which the key economic functions — for whom, what, how to produce are principally determined by government directive.

Optimum:

Producing the best possible results (also optimal)

Equity in economics:

A situation in which every thing is treated fairly or equally, i.e. according to its due share

Nepotism:

Doing unfair favors for near ones when in power

Microeconomics:

The behavior of individual elements in the economy

Macroeconomics:

The economy as whole or on aggregate level

Rational choice:

The choice based on pure reason and without succumbing to one's emotions or whims.

Barter trade:

A non-monetary system of trade in which “goods” not money is exchanged.

Opportunity Cost:

It is what must be given up or sacrificed in making a certain choice or decision.

Marginal Cost:

Marginal cost is the increment to total costs of producing an additional unit of some good or service.

Marginal benefit:

The increment to total benefit derived from consuming an additional unit of good or service.

 Production Possibility Frontier (PPF):

The maximum amount of goods and services which the country can produce in a given time with limited resources, given a specific state of technology

 Economic growth:

An increase in the total output of a country over time

 Perfect competition:

A situation in which no firm or consumer is big enough to affect the market price.

 Shortage:

Shortage is a situation in which demand exceeds supply, i.e. producers are unable to meet market demand for the product.

 Surplus:

Situation of excess supply, in which market demand falls short of the quantity supplied

 Goods market:

Market in which goods are bought and sold for the purpose of consumption

 Factors markets:

Markets in which factors of production are bought and sold, for the purpose of production

 Normal goods:

Whose quantity demanded goes up as consumer income increases.

 Inferior goods:

Whose quantity demanded goes down as consumer income increases.

 Giffen goods:

A special case of inferior goods whose quantity demanded increases when the price of the good rises

 Price effect:

The sum of income and substitution effects

 Income effect:

The effect of a price rise on quantity demanded that works through a decline in the real income (or purchasing power) of the consumer.

 Substitution effect:

The effect of a price rise on quantity demanded that works through the consumer switching to substitutes goods.

 Substitutes:

Goods that compete with one another or can be substituted for one another, like butter and margarine

 Compliments:

Goods that go hand in hand with each another.

 Cash crops:

The crops which are not used as food but as a raw material in factories e.g. cotton

 Demand:

Demand is the quantity of a good buyer wish to purchase at each conceivable price.

 Law of demand:

If the price of a certain commodity rises, its quantity demanded will go down, and vice-versa.

 Demand function:

An equational representation of demand as a function of its many determinants

 Demand curve:

A graph that obtains when price (one of the determinants of demand) is plotted against quantity demanded.

 Supply:

Supply is the quantity of a good seller wish to sell at each conceivable price.

 The law of supply:

The quantity supplied will go up as the price goes up and vice versa.

 Supply schedule:

A table which shows various combinations of quantity supplied and price.

 Supply function:

An equational representation of supply as a function of all its determinants

 Supply curve:

When price is plotted against quantity supplied.

 Determinants of supply are:

- • Costs of production
- • Profitability of alternative products (substitutes in supply)
- • Profitability of goods in joint supply
- • Nature and other random shocks

- • Aims of producers
- • Expectations of producers

✚ **Equilibrium:**

Equilibrium is a state in which there are no shortages and surpluses; in other words the quantity demanded is equal to the quantity supplied.

✚ **Equilibrium price:**

It is the price at which the quantity demanded is equal to the quantity supplied.

✚ **Equilibrium quantity:**

The quantity at which the quantity demand is equal to the quantity supplied.

✚ **Algebraic Representation of Equilibrium:**

If we have following demand and supply functions,

$$Q_d = 100 - 10P$$

$$Q_s = 40 + 20P$$

In equilibrium,

$$Q_d = Q_s$$

Therefore

$$100 - 10P = 40 + 20P$$

$$20P + 10P = 100 - 40$$

$$30P = 60$$

$$P = 60/30$$

$$P = 2$$

✚ Putting the value of price in any of demand and supply equation,

$$Q = 100 - 10 \times 2 \text{ (or } 40 + 20 \times 2)$$

$$Q = 100 - 20$$

$$Q = 80$$

✚ The equilibrium price is 2 and the equilibrium quantity is 80.

✚ **Government and Price-Determination:**

The government may intervene in the market and mandate a maximum price (price ceiling) or minimum price (price floor) for a good or service.

✚ **Price ceiling:**

The maximum price limit that the government sets to ensure that prices don't rise above that limit (medicines for e.g.).

Price floor:

The minimum price that a Government sets to support a desired commodity or service in a society (wages for e.g.).

Social cost:

The cost of an economic decision, whether private or public, borne by the society as a whole.

Marginal social cost:

The change in social costs caused by a unit change in output

ELASTICITIES

Elasticity is a term widely used in economics to denote the “responsiveness of one variable to changes in another.”

Types of Elasticity:

There are four major types of elasticity:

- • Price Elasticity of Demand.
- • Price Elasticity of Supply.
- • Income Elasticity of Demand.
- • Cross-Price Elasticity of Demand.

Price Elasticity of Demand:

Price elasticity of demand is the percentage change in quantity demanded with respect to the percentage change in price.

$$PE_d = \text{Percentage change in Quantity demanded} / \text{Percentage change in Price}$$

Where ϵ = Epsilon; universal notation for elasticity.

Price Elasticity of Supply:

Price elasticity of supply is the percentage change in quantity supplied with respect to the percentage change in price.

$$PE_s = \text{Percentage change in Quantity Supplied} / \text{Percentage change in Price}$$

Income Elasticity of Demand:

Income elasticity of demand is the percentage change in quantity demanded with respect to the percentage change in income of the consumer.

$$YE_d = \text{Percentage change in Quantity demanded} / \text{Percentage change in Income}$$

Cross-Price Elasticity of Demand:

Cross price elasticity of demand is the percentage change in quantity demanded of a specific good, with respect to the percentage change in the price of another related good.

$Pb\epsilon_{da}$ = Percentage change in Demand for good a / Percentage change in Price of good b

Point Elasticity:

Point elasticity is used when the change in price is very small, i.e. the two points between The formula for point elasticity can be illustrated as:

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

Or this formula can also be written as:

$$\epsilon = \frac{dQ}{dP} \times \frac{P}{Q}$$

Where d = infinitely small change in price.

Arc Elasticity:

Arc elasticity measures the “average” elasticity between two points on the demand curve.

$$\epsilon = \frac{\Delta Q}{Q} \div \frac{\Delta P}{P}$$

To measure arc elasticity we take average values for Q and P respectively.

Elastic and Inelastic Demand:

Slope and elasticity of demand have an inverse relationship. When slope is high elasticity of demand is low and vice versa.

Perfectly inelastic demand:

When the slope of a demand curve is infinity, elasticity is zero

Perfectly elastic demand:

When the slope of a demand curve is zero, elasticity is infinite.

Unit elasticity:

A 1% change in price will result in an exact 1% change in quantity demanded. Thus elasticity will be equal to one. A unit elastic demand curve plots as a rectangular hyperbola.

Note that a straight line demand curve cannot have unit elasticity as the value of elasticity changes along the straight line demand curve.

Total revenue and Elasticity:

Total revenue (TR) = Price x Quantity; when the demand curve is inelastic, TR increases as the price goes up, and vice versa; when the demand curve is elastic, TR falls as the price goes up, and vice versa.

Determinants of price elasticity of demand:

- a) **Number of close substitutes within the market** - The more (and closer) substitutes available in the market the more elastic demand will be in response to a change in price. In this case, the substitution effect will be quite strong.
- b) **Percentage of income spent on a good** - It may be the case that the smaller the proportion of income spent taken up with purchasing the good or service the more inelastic demand will be.
- c) **Time period under consideration** –
Demand tends to be more elastic in the long run rather than in the short run.

Effects of Advertising on Demand Curve:

Advertising aims to:

- Change the slope of the demand curve – make it more inelastic. This is done by generating brand loyalty;
- Shift the demand curve to the right by tempting the people's want for that specific product.

Normal Goods:

If the sign of income elasticity of demand is positive, the good is normal.

Inferior Goods:

If sign is negative, the good is inferior.

Determinants of Income Elasticity of Demand:

The determinants of income elasticity of demand are:

- Degree of necessity of good.
- The rate at which the desire for good is satisfied as consumption increases
- The level of income of consumer.

Short Run:

Short run is a period in which not all factors can adjust fully and therefore adjustment to shocks can only be partial.

Long run:

A period over which all factors can be changed and full adjustment to shocks can take place.

Rational Choice:

Rational choice consists in evaluating the costs and benefits of different decisions and then choosing the decision that gives the highest benefit relative to cost.

Ignorance and Irrationality:

There is a difference between “ignorance” and “irrationality.” A person operating under uncertainty and thus at least partial ignorance can still make rational decisions by taking into account all the information she has at her disposal. Rationality is an ex-ante concept.

CONSUMER BEHAVIOR:

There are two approaches to analyzing consumer behavior;

- Marginal utility analysis
- Indifference curve approach.

 **Utility** is the usefulness, benefit or satisfaction derived from the consumption of goods and services.

 **Total utility** is the entire satisfaction one derives from consuming a good or service.

 **Marginal utility** is the additional utility derived from the consumption of one or more unit of the good.

The Law of Diminishing Marginal Utility:

The law of diminishing marginal utility states that as you consume more and more of a particular good, the satisfaction or utility that you derive from each additional unit falls.

 **The marginal utility curve slopes** downwards in a MU-Q graph showing the principle of diminishing marginal utility.

Consumer Surplus and Optimal Point of Consumption:

Consumer surplus is the difference between willingness to pay and what the consumer actually has to pay: i.e. $CS = MU - P$.

The optimal point of consumption:

That point where consumer surplus becomes zero. If marginal utility is greater than price, consumption will increase causing MU to fall until it equals price, and vice versa.

The Equi-marginal Principle:

In the case of more than two goods, optimum consumption point can be arrived at by using the equi-marginal principle. This state that a person will derive a maximum level of TU from consuming a particular bundle of goods when the utility derived from the last dollar spent on each good is the same:

- $\frac{MU_a}{P_a} = \frac{MU_b}{P_b} = \frac{MU_c}{P_c} \dots\dots\dots$
- $P_a \quad P_b \quad P_c$

✚ **The Problem of Uncertainty:**

The problem of uncertainty is integral to consumption decisions especially in the matter of purchasing durable goods. Uncertainty means assigning probabilities to the outcomes. A consumer's response to uncertainty depends upon her attitude to risk: whether she is:

- Risk averse.
- Risk-loving.
- Risk neutral.

✚ **Risk** means to take a chance after the probabilities have been assigned.

✚ **The odds ratio (OR)** is the ratio of the probability of success to the probability of failure. It can be equal to 1, less than 1 or greater than 1. If it is equal to 1 we call it fair odds, if less then 1 unfavorable odds, and if greater 1 then favorable odds.

✚ **A risk neutral person** is one who buys a good when $OR > 1$. He is indifferent when $OR = 1$ and will not buy when $OR < 1$.

✚ **A risk averse person** will not buy if $OR < 1$. He will also not buy if $OR = 1$. He might also not decide to buy if $OR > 1$.

✚ **A risk loving person** will buy if $OR > 1$ or $= 1$, but he might also buy when OR is < 1 . The degree of risk aversion increases as your income level falls, due to diminishing marginal utility of income.

✚ **Risk hedging:**

Can be used to reduce the extent to which concerns about uncertainty affect our daily lives.

✚ **An indifference curve:**

A line which charts out all the different points on which the consumer is indifferent with respect to the utility he derives.

✚ **Marginal rate of substitution (MRS):**

The indifference curve between any two points is given by the change in the quantity of good Y divided by change in the quantity of good X. This is called the.

✚ **A diminishing marginal rate of substitution (MRS)** is related to the principle of diminishing marginal utility. MRS is equal to the ratio of the marginal utility of X to the marginal utility of Y.

- $dY = \frac{MU_X}{MU_Y} = MRS$
- $dX = MU_Y$

✚ The indifference curve for **perfect substitutes** is a straight line, while it is L-shaped for **perfect compliments**.

✚ **The Budget Line:**

The budget line shows various combinations of 2 goods X & Y that can be purchased.

✚ **Input price ratio:**

Budget line's slope $-P_X/P_Y$ is called input price ratio.

✚ **The optimum consumption point for the consumer:**

Where the budget line is tangent (intersect) to the highest possible indifference curve at such a point, the slopes of the indifference curve and the budget line are equal. In other words:

- $MRS = P_X/P_Y = \Delta Y/\Delta X = MU_X/MU_Y$.

Just as we can use indifference analysis to show the combination of goods that maximizes utility for a given budget, so too we can show the least-cost combination of goods that yields a given level of utility.

✚ **The Income Consumption Curve (ICC):**

Change in curve due to change in income

✚ **Price Consumption Curve (PPC):**

Change in curve due to change in Price

✚ **When the price of one good change, two things happen:**

- **One** the purchasing power of consumer changes i.e., the budget line shifts (leads to income effect).

- **Secondly**, the slope of budget line changes due to a change in the relative price ratio (leads to substitution effect).

Income & Substitute Effect:

-  **The substitution effect** of a price rise is always negative, while the **income effect** of a price rise on the consumption of a normal good is negative. **The income effect** for an inferior good is positive. The income effect of a Giffen good is so positive that it offsets the negative substitution effect, therefore.

Limitation of Indifference Approach:

The indifference curves approach has the following limitations:

- Indifference curve analysis is only possible for 2 or at best for 3 goods.
- It is almost impossible to practically derive indifference curves.
- The consumer may not always behave rationally.
- The consumer may not always realize the level of utility (ex-post) from consumption, that she originally expected (ex-ante).
- Indifference curve analysis can not help when one of the goods (X or Y) is a durable good.

Firm:

A firm is any organized form of production, in which someone or a collection of individuals are involved in the production of goods and services. A firm can be sole proprietorship (one person ownership), partnership (a limited number of owners) or a limited company (a large number of changing shareholders).

Production Function:

A production function is simply the relationship between inputs & outputs.

Mathematically it can be written as:

$$\img alt="colorful plus icon" data-bbox="365 806 388 825"/> \mathbf{Q = f(K, L, N, E, T, P.....)}$$

Where,

Q = Output = Total product produced

K = Capital

L = Labor

N = Natural resources

E = Entrepreneurship

T = Technology

P = Power

✚ **Cobb Douglas production function:**

$$✚ Q = A K^{\alpha} L^{1-\alpha}$$

Where:

Q = output

L = labor input

K = capital input

A, α and $1 - \alpha$ are constants determined by technology.

✚ **Short run:**

Short run is a period of time in which at least one of the factors of production is fixed or Unchangeable

✚ **Long run:**

Long run is a period of time in which all the factors of production used in the production are flexible. The actual length of the short run and long-run can vary considerably from industry to industry.

✚ **The Law of Diminishing Marginal Returns:**

The law of diminishing marginal returns states that as you increase the quantity of a variable factor together with a fixed factor, the returns (in terms of output) become less and less.

✚ **The total physical product (TPP)**

A factor (F) is the latter's total contribution to output measured in units of output produced.

✚ **Average physical product (APP):**

Is the TPP per unit of the variable factor

$$✚ APP = TPPF/QF$$

✚ **Marginal physical product (MPP)**

Is the addition to TPP brought by employing an extra unit of the variable factor More generally,

$$\text{MPPF} = \Delta \text{TPPF} / \Delta \text{QF}$$

Relationship between APP and MPP:

- If the marginal physical product equals the average physical product, the average physical product will not change.
- If the marginal physical product is above the average physical product, the average physical product will rise.
- If the marginal physical product is below the average physical product the average physical product will fall.

If population is increasing and output remains constant:

Then diminishing returns set in and therefore average per capita production/consumption can be expected to fall *ceteris paribus* (all factor effect demand should remain constant).

A firm is confronted with three more decisions;

- Scale of production,
- Location, size of industry
- Optimum combination of inputs.

The Scale of Production:

Change in production or increasing, decreasing return if due to the change in scale of production.

The location, size of Decision:

The location decision depends upon both the location of raw material suppliers and the location of the market. The nature of the product, transportation costs, availability of suitable land for production, stable power supply and good communications network, availability of qualified and skilled workers, level of wages, the cost of local services and availability of banking and financial facilities are among some other important factors.

The size of an industry can lead to external economies and diseconomies of scale.

External Economies and Diseconomies of Scale:

External economies are benefits accruing to any one firm due to actions or the presence of other firms. For example, advertising by a rival industry, setting up of credit information bureaus by banks.

The Optimum Combination of Factors:

The optimum combination of factors will obtain at the point where the marginal physical product of the last dollar spent on all inputs is equal, i.e.:

$$\frac{MPP_K}{P_K} = \frac{MPP_L}{P_L}$$

Isoquant:

An isoquant represents different combinations of factors of production that a firm can employ to produce the same level of output.

Marginal Rate of Technical Substitution (MRTS):

The slope of an isoquant is called marginal rate of technical substitution (MRTS).

Budget Line:

Amount of money needed or available

COST:

Expense incurred in production.

Variable Cost:

Costs which vary with the level of activity (or output) are called variable costs.

Fixed Costs:

Costs which do not vary with the level of activity or output are called fixed costs. In long run there are no fixed costs.

Relationship between costs and productivity:

There is an **inverse** relationship between costs and productivity, i.e. as productivity rises, costs fall and vice versa.

Total Cost:

Total cost (TC) is the sum of all fixed and variable costs.

Average Cost:

Average cost (AC) is the vertical summation of the AFC & AVC, where

$$AC = AFC + AVC$$

$$AFC = TFC/Q \text{ and}$$

$$AVC = TVC/Q.$$

Marginal Cost:

Marginal cost is the addition to TC caused by a unit increase in output. More generally:

$$\text{MC} = \Delta\text{TC} / \Delta\text{Q}.$$

The Long-Run Average Cost Curve (LRAC):

The long-run average cost (LRAC) curve for a typical firm is U shaped.

As a firm expands, it initially experiences economies of scale (due to productive efficiency, better utilization of resources etc.); in other words it faces a downward sloping LRAC curve.

After the scale of operation is increased further, however, the firm achieve constant costs i.e., LRAC become flat.

If the firm further increases its scale of operation, diseconomies of scale set in (due to problems with managing a very large organization etc.) and the LRAC assumes a positive slope.

Long-run marginal cost (LRMC):

In case a firm is enjoying economies of scale, each incremental unit will cost less than the preceding one i.e., LRMC will be falling. The opposite will be true for diseconomies of scale. In case of constant costs, each incremental unit will cost the same, i.e., the LRMC will be constant.

Envelope curve:

The LRAC curve for a firm is actually derived from its SRAC curves. The exact shape of the LRAC is a wave connecting the least cost parts of the SRAC curves. In practice however, LRAC is shown as a smooth U-shaped curve drawn tangent to the SRAC. This is also called an envelope curve.

REVENUES

Revenues are the sale proceeds that accrue to a firm when it sells the goods it produces.

Total Revenue (TR):

Total revenue (TR), average revenue (AR) and marginal revenue (MR) concepts apply in the same way as they did to TC, AC and MC.

$$\text{TR} = \text{P} \times \text{Q}$$

Average Revenue (AR)

$$\text{AR} = \text{TR} / \text{Q}$$

AR is almost always equal to price unless the firm is engaged in price discrimination.

Marginal Revenue (MR):

$$\text{MR} = \Delta \text{TR} / \Delta \text{Q}.$$

Price-taker:

A firm that does not have the ability to influence market price is a price-taker.

For a price taker, $\text{AR} = \text{MR} = \text{P}$. In this case TR is a straight line from the origin. The demand (or AR) curve the firm faces is a horizontal line.

Price-maker Firm:

A firm that influences the market price by how much it produces can be called a price-maker or price-setter.

Normal economic profit:

Economists say that when firms earn zero accounting profits, they actually earn normal economic profits.

Positive profits (supernormal profits):

Positive profits are, for this reason, called supernormal profits as they are over and above what the owners normally require as a return for their entrepreneurship.

Profit maximization using calculus:

If total revenue (TR) and total cost equation are given as follows:

$$\text{TR} = 48q - q^2$$

$$\text{TC} = 12 + 16q + 3Q^2$$

Then we can find out the value of output at which profit is maximized as under:

Solution:

Profit is maximized at the point where

$$\text{MC} = \text{MR}$$

MC function can be found by taking derivative of total cost function. i.e.:

$$\text{MC} = d \text{TC} / dQ$$

$$\text{MC} = 16 + 6Q$$

MR function can be found by taking derivative of total revenue (TR) function i.e.:

$$\text{MR} = d \text{TR} / dQ$$

$$= 48 - 2Q$$

As profit is maximized at the point where $MR = MC$, so by equating values of MC and MR function, we get,

✚ $MR = MC$

$$16 + 6Q = 48 - 2Q$$

$$6Q + 2Q = 48 - 16$$

$$8Q = 32$$

$Q = 4$

The equation for total profit is,

$$\pi = TR - TC$$

$$= 48Q - Q^2 - (12 + 16Q + 3Q^2)$$

$$= 48Q - Q^2 - 12 - 16Q - 3Q^2$$

$$= -4Q^2 + 32Q - 12$$

Putting $Q = 4$, we get,

$$\pi = -4(4)^2 + 32(4) - 12$$

$$= -64 + 128 - 12$$

$\pi = 52$

So profit is maximized where output is 4 and the maximum profit is 52.

✚ MARKET STRUCTURES

Market structure refers to how an industry (broadly called market) that a firm is operating in is structured or organized.

The key ingredients of any market structure are:

- Number of firms in the market/industry
- Extent of barriers to entry
- Nature of product
- Degree of control over price.

✚ Four broad market structures have been identified by economists:

- Perfect competition
- Monopoly
- Monopolistic competition
- Oligopoly.

✚ PERFECT COMPETITION

The main assumptions of perfect competition are:

Large number of buyers and sellers, therefore firms price-takers.

No barriers to entry (also implies free mobility of factors of production).

Identical/homogeneous products Perfect information/knowledge

Perfect competition can be thought of as an **extreme form of capitalism**, i.e. all the firms are fully subject to the market forces of demand and supply.

✚ **Concentration ratio:**

Is used to assess the level of competition in an industry It is simply the percentage of total industry output that is produced by the 5 largest firms in the industry.

✚ **The Short Run and Long Run under Perfect Competition:**

The short run is the period where at least one factor of production is fixed. In perfect competition, it also means that no new firms can enter the market. In the long run, all the factors of production are variable.

✚ **Allocative efficiency:** (the point of maximum allocative efficiency)

The optimal point of production for any individual firm is where $MR=MC$. The optimal point of production for any society is where price is equal to marginal cost. This is called the point of maximum allocative efficiency

✚ **Productive efficiency:**

This is attained when firms produce at the bottom of their AC curves, that is, goods are produced in the most cost efficient manner. Perfectly competitive firms also achieve this in the long run because they produce at $P=MC$

✚ **MONOPOLY**

A situation where there is a single producer in the market.

✚ **PRICE DISCRIMINATION**

Price discrimination (PD) happens when a producer charges different prices for the same product to different customers.

✚ **Types of Price Discrimination:**

PD can be of three types:

1st degree (everyone charged according to what he can pay),

2nd degree (different prices charged to customers who purchase different quantities) and

3rd degree (different prices to customers in different markets)

✚ **MONOPOLISTIC COMPETITION**

Monopolistic competition is also characterized by a large number of buyers and sellers and absence of entry barriers.

OLIGOPOLY

Similar to monopoly in the sense that there are a small number of firms (about 2-20) in the market and, as such, barriers to entry exist.

Collusion:

Collusion occurs when two or more firms decide to cooperate with each other in the setting of prices and/or quantities.

Cartel:

A cartel is most likely to survive when the number of firms is small, there is openness among firms regarding their production processes.

Break down of Collusive Oligopoly:

A collusive oligopoly (say based on production quotas) is likely to break down when the incentive to cheat is very high. This can arise, for instance, in a situation where there is a lure of very high profits so that individual firms cheat on their quota and try to increase output and profits.

Prisoner's Dilemma Situation:

A prisoner's dilemma situation for oligopolistic firms arises when 2 or more firms by attempting independently to choose the best strategy anticipation of whatever the others are likely to do, all end up in a worse position than if they had cooperated in the first place.

Maximin:

Maximin strategy is a cautious (pessimistic) approach in which firms try to maximize the worst payoff they can make.

Maximax strategies:

A maximax strategy involves choosing the strategy which maximizes the maximum payoff (optimistic).

Kinked Demand Curve:

A kinked demand curve explains the "stickiness" of the prices in oligopolistic markets.

Non Price Competition:

Non price competition means competition amongst the firms based on factors other than price, e.g. advertising expenditures.

IMPORTANT QUESTIONS

- a) What are the factors of productions?
- b) State the Law of DEMAND/ Supply?
- c) Law of Equi- Marginal Utility
- d) Law of Diminishing Marginal Utility
- e) Types of Elasticity
- f) Define production function.
- g) Broad market structure
- h) Solve the equation:

$$MC=MR$$

Or

$$Q_d = Q_s$$

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