TOPIC 2: PRICE THEORY.

Sub-Topic1: Introduction to price Analysis.

Price theory:

This is concerned with the study of prices and is regarded as the basis of economic theory.

It is concerned with the economic behaviour of individual consumers, producers and resource owners.

It explains the production, allocation and pricing of goods and services.

PRICE

Price is the exchange value of a commodity in terms of money.

OR: The amount of money that has to be given up in order to obtain a good or service or a factor input.

MARKET: A market is an arrangement that brings together buyers and sellers to transact business at a particular period of time. It is the total number of buyers and sellers involved in the exchange of a given product at a particular period of time.

A market is not restricted to an area but it takes place in different ways like on phone, telefaxing, Internet, etc

In the market, buyers and sellers must communicate together and in so doing, they influence the price.

A market has the following characteristics:

- There should be buyers and sellers who participate in the exchange of a commodity.
- There should be commodities to exchange
- There should be a medium of exchange agreed upon and acceptable to all participants.
- There should be a price at which commodities are exchanged.

TYPES OF MARKETS:

- **PRODUCT/ COMMODITY MARKETS**; these are markets in which goods or services are traded.
- **RESOURCE/ FACTOR MARKETS**; these are markets in which production resources/factors of production especially labour and capital are traded.
- **SPOT MARKETS**; these are markets where a commodity or a currency is traded for immediate delivery.
- **FORWARD/ FUTURE MARKETS**; these are markets where buyers and sellers make a contract to buy or sell commodities at a fixed date at the price agreed upon in the contract/agreement.
- **FREE MARKETS**; these are markets where government exerts no control/ intervention.
- **CONTROLLED MARKET**; these are markets where the government or central authorities exerts a degree of control, for example by fixing prices, setting quotas etc.
- **PERFECT MARKET**; this is the market where none of the buyers or sellers have the powers to influence prices in the market by either influencing demand or supply.
- **IMPERFECT MARKETS**; this is where the buyer or seller has the power to influence the price in the market by either influencing demand or supply.
- **ORGANISED MARKETS;** these are formal markets, such as a commodity market each dealing in a worldwide commodity, e.g. coffee, sugar, cocoa, rubber, etc.

TYPES OF PRICES

1. **NORMAL PRICE;** this is the one which is obtained where supply and demand are equal in the long run period .i.e. The long run equilibrium price.
2. **EQUILIBRIUM PRICE**; this is the price at which quantity supplied equals quantity demanded. It is determined by the interaction of the market forces of demand and supply. I.e. it is set or fixed at a point of intersection of demand and supply curves in a free enterprise economy.

Illustration of Equilibrium Price

From the above illustration **OPe** is the equilibrium price and **OQe**. is the equilibrium quantity and point **E** is the point of equilibrium

3. **RESERVE PRICE**; this is the price below which a seller is not willing to sell his/her product.

OR. It is the **least /lowest** possible acceptable price a seller can sell his or her product.

Determinants of Reserve Price

- Expectation of future demand for the product. If the seller expects the demand for the product to rise in future, he/she fixes a high reserve price so that more is sold in future thus earns more profits. However if the seller expects the demand for the product to fall in future, he sets a lower reserve price so as to sell more currently and earn more profits.

- Durability or Perishability of the product. Durable goods can be kept for a longer period of time and therefore a higher reserve price is fixed since the seller is not afraid of his/her product getting spoilt. On the other hand for perishable goods a lower reserve price is set because they cannot be kept for long period of time.

- Cash flow requirements in the business. The greater the need for cash in business the lower the reserve price set by the sellers' products because there is an urgent need for money in the business. On the other hand the less the need for cash in business the higher the reserve price set by the sellers; this is so because there is less urgent need for cash in the business.

- The storage costs in relation to future price. The higher the storage costs, the lower the reserve price set by the seller this is so because the seller wants to sell off the products as fast as possible in order to reduce on the storage cost. On the other hand the lower the storage costs, the higher the reserve price set by the seller because the seller is not in a hurry to sell off his products since the storages costs are manageable

- The length of time it takes before a new supply of goods reaches the market. (Gestation period). The longer the period it takes for a new supply of goods to reach the market the higher the reserve price set by the seller; this is so because the seller scared of new supply of goods outcompeting the old stock. However the shorter the time it takes for new supply of goods to reach the market the lower the reserve price since the seller wants to get rid of the old stock before the new stock reaches the market.

- The future cost of production. The higher the future cost of production, the lower the reserve price set by the seller, this is because producer would prefer to produce and sell more when production costs are low. On the other hand the lower future cost of

production the higher the reserve price, this is because producer would prefer to produce and sell more in future at low costs of production.

4. **MARKET PRICE**; this is the ruling/prevailing/reigning price of a product at a particular time.

   OR: It refers to any price determined by buyers and sellers in the market in the short run period.

   The market price may or may not necessarily be the equilibrium price since it is determined by a number of factors.

DETERMINANTS OF MARKET PRICE

- **Through Haggling/Bargaining**; this is where a seller and a buyer carry out negotiations over the price until the two parties reach an agreeable price. Bargaining depends on the skills of a buyer and the seller. If the buyer has got more bargaining skills, then the price will be in his/her favour and if the buyer has got more bargaining skills, then the price will be in his /her favour depending on the bargaining zone.
- **Through Auctioning/Bidding/tendering**. This is where a seller offers a product for sale and calls for bids (price offers) and the highest bidder takes the commodity. This is common in fund raising functions and sale of government property.

  - **Through the market forces of demand and supply**; this applies for transactions in a free market situation whereby the price is determined by the free interplay of the market forces of demand and supply. The point of intersection is where the price is reconciled.

  - **Sale by treaties/agreements**; this is where buyers and sellers come together to fix the price of a given commodity e.g. the price of coffee is usually fixed by the international coffee agreement.

  - **Price leadership**; this is where a dominant or low cost firm sets up a profit maximising price and other firms follow it.

  - **Government policy of price legislations;** this is where the government fixes the price for the commodity through price control policy. It can either be a minimum price fixed above

the equilibrium to protect the producers or fix a maximum price below the equilibrium to protect the consumers.

- **Offers at fixed price by individuals, government, institutions**, this is where a seller sets a price for his/her commodity and the buyer has to buy that commodity at that price e.g. price in the supermarkets, government fixing wages of civil servants.
- **Collusion/cartel arrangements**; this is where different firms producing a similar commodity come together and agree on the price to charge for their product.

- **Resale price maintenance**; this is a practice where producers fix prices at which their products should be sold to the final consumers
  OR;

This is a system where producers insist on fixing prices at which their products should be sold up to the retail level.

This is commonly used in the newspapers industry where manufactures fix prices at which consumers should buy these commodities.

ADVATANGES/MERITS OF RESALE PRICE MAINTENANCE;

- It helps to protect consumers from exploitation by middlemen.
- It helps to reduce competition especially between small scale and large scale retailers.
- Helps to maintain price stability.
- Business profits are easy to compute.
- Helps the seller to increase his profits through increased sales.
- It saves time since there is no need for bargaining.

FUNCTIONS OF PRICE IN THE MARKET

- Measuring the value of commodities; the worth of commodities is expressed in terms of money. Guiding producers on what to produce. Producers normally go for commodities which fetch high prices.
- Guiding consumers in making consumption decisions/plans. Consumers put into consideration the prices attached to the various needs/wants before buying goods and services.
- Determining income distribution i.e. producers who sell their goods at higher prices earn more income than those who sell at low prices.
- Guiding producers on how to produce /determining the technique of production to use i.e. producers normally go for an affordable method of production in order to minimise the cost of production so as to maximise profits.
- Guiding producers on where to produce/ choosing the best location for the business. Producers always set up firms in those areas which have attractive markets and where consumers can afford to pay high prices for their goods so as to maximise profits.
- Guiding the producer on deciding for whom to produce/ providing automatic adjustments between demand and supply.

Sub-Topic2: THE THEORY OF DEMAND

DEMAND:

Demand is defined as the desire for a commodity backed by the ability to pay a certain sum of money at a given price and time

OR:

Demand is the quantity of goods which the consumers are willing and able to buy at a given price over a given period of time.

EFFECTIVE DEMAND:

This is the actual buying of goods and services at a given price and at a given time.

OR. It is the actual amount of goods and services purchased by the consumer at a given price and at a given time.

AGGREGATE DEMAND

This is the total demand for goods and services in an economy at a given period of time.

OR: It is the total amount of expenditure on goods and services by all sectors in an economy.

Components of Aggregate demand in an open economy:

- Consumption expenditure by households(C)
- Investment expenditure by firms (I)
- Government expenditure on goods and services (G)
- Net foreign expenditure (X-M)

Determinants of aggregate demand

- The income levels in the economy/amount of money in circulation.
- The general price levels.
- The existing stock of capital
- The size of the population/market size.
- Taxation and subsidization policies.
- Availability of credit

REASONS WHY PEOPLE DEMAND FOR GOODS

1. **FUNCTIONAL EFFECT**; some people buy certain goods because of the purpose they serve e.g. food for eating.

2. **VEBLEM/EXCLUSIVE CONSUMPTION**; one buys a commodity because he/she wants to be the only person identified with it i.e. the desire to be unique.
3. **SNOB EFFECT/CONSPICUOUS CONSUMPTION**; this is where an individual buys goods which are expensive just to show his economic power or status e.g. buying expensive designer clothes, expensive vehicle, unique phones etc.
4. **BANDWAGON EFFECT**; this is when a person buys a commodity because there are others buying it i.e. one buys a commodity in order to emulate others who have already bought it.
5. **IMPULSIVE BUYING**; this is where an individual buys a commodity because he/she has seen it displayed i.e. the good is bought out of a sudden desire because the good is attractively displayed.

TYPES OF DEMAND:

INTER RELATED DEMAND/TYPES OF DEMAND.

Inter related demand is a situation where demand for one commodity affects the demand of another commodity either positively or negatively.

It includes the following.

1. **Composite demand;** this is the total demand for a good with many uses/which can be used for more than one purpose. Examples of composite demand include;
    - ✓ Demand for electricity used for ironing, lighting, cooking.
    - ✓ The demand for wool for cloth making, cushioning, cleaning etc.
    - ✓ The demand for sugar for baking, sweetening drinks, brewing etc.
    - ✓ Demand for Iron and steel for construction, furniture making, manufacturing etc
    - ✓ Demand for clay for making pots, bricks, cups, stoves etc
    - ✓ Demand for skins and hides for making shoes, bags, belts etc
    - ✓ Demand for cloth for adornment, protection, warmth etc.
    - ✓ Demand for an axe for hewing/splitting, cutting, tool of defence

2. **Joint/complementary demand;** this is demand for commodities that are used together in the satisfaction of human wants i.e. the buying of one commodity necessities the buying of the other e.g. demand for a gun and bullets, demand for a car and fuel etc. Therefore the fall in the price of one commodity increases the quantity demanded of its complement and an increase in the price of one commodity leads to a fall in the quantity demanded of its complement.
3. **Competitive demand;** this the demand for commodities that are close substitutes which serve **almost** the same purpose e.g. demand for butter and blue band, the demand for tea and coffee which are substitutes to each other.

   A fall in price of one commodity reduces the demand for another (its substitute). An increase in price of one commodity increases demand for another.(its substitute)
4. **Derived demand**; this is demand for goods that are not used for the satisfaction of wants directly but rather demanded in order to produce some other goods e.g. cotton is required for cloth production. If the demand for clothes increases, then more cotton is demanded and the demand for cotton is derived from the demand for clothes.

   All in all, demand for factors of production is derived demand i.e. the demand for commodities lead to a demand for factors of production.
5. **Independent/autonomous demand;** this refers to demand for a commodity which has no effect or relationship with the demand for other commodities.

The demand function

The demand function is a statement which shows a technical relationship between quantity demanded of a commodity and factors which influence it, such as price of a commodity (p), level of consumer's income (Y), prices of related commodities (p_r), tastes and preferences (T_p) etc.i.e. $Qd = f(P, Y, P_r, T_p \ldots\ldots\ldots n)$.

DEMAND SCHEDULE

A demand schedule is a table showing the amount of a commodity which is demanded by a consumer at different price levels.

The demand schedule reflects the law of demand which states that ”the higher the price, the lower the quantity demanded and the lower the price the higher the quantity demanded holding other factors constant”.

The demand schedule can be constructed for an individual or a group of individuals in the market.

An individual’s demand schedule

Price (shs)	Quantity in kg
2000	5
1500	10
1000	15
500	20

The information on an individual demand schedule can be illustrated on the graph in order to come up with the demand curve

The demand curve

A demand is a graphical representation of quantity demanded of a commodity at different price levels.

OR: It is a curve that shows quantity demanded of a commodity at different price levels.

Note: Price is represented on the vertical axis while quantity demanded on the horizontal axis.

A typical/normal demand curve is down ward sloping from left to right.

It is drawn on the assumption that quantity demanded depends on the price of the commodity, other factors affecting demand remaining constant.

An illustration of the demand curve

From the diagram above, it is noted that at a higher price (shs. 2000), 5kg are bought and as the price reduces e.g. to (shs. 500) quantity demanded increases to 20kg.

3. Market demand. Market demand is the total demand of all the consumers of a given product at alternative prices in a given period of time.
If we sum up the different quantities of a commodity demanded by a number of individuals at various prices, we have a market demand schedule as shown below.

Price (Ug.Shs)	Demand of consumers				Market demand
	A	B	C	D	
60	6	3	1	0	10
50	10	5	3	2	20
40	14	8	5	3	30
30	16	12	7	5	40

An illustration of the Market demand curve

THE LAW OF DEMAND: The law of demand states that the higher the price, the lower the quantity demanded of a commodity and the lower the price, the higher the quantity demanded of a commodity other factors affecting demand remaining constant/Ceteris paribus.

REASONS WHY THE DEMAND CURVE SLOPES DOWNLOADS FROM LEFT TO RIGHT OR REASONS WHY PEOPLE DEMAND MORE AT LOWER PRICES OR FACTORS THAT EXPLAIN THE LAW OF DEMAND:

1. Substitution effect of a price change. As the price of a commodity increases while prices of substitutes are constant, a commodity becomes relatively expensive in relation to its substitutes. Consumers therefore buy less of a commodity as they demand more of its substitutes which are relatively cheaper. However, as the price of a commodity decreases while prices of its substitutes remain constant, a commodity becomes relatively cheaper hence an increase in demand for it, thus leading to the downward sloping of the demand curve.

2. Real income effect of a price change. A fall in price leads to an increase consumer's real income. This means that the consumer can buy more units of a commodity using the same amount of income. However, as the price of a commodity increases the real income of a consumer falls hence less of a commodity is demanded.

NB:(i) Nominal income is the income of a person expressed in monetary/money term.

(ii) Real income is the income of a person expressed in terms goods and services that the nominal income can buy OR: It is the purchasing power of the nominal income.

3. The law of diminishing marginal utility. According to this law when one consumes more and more units of a commodity, the satisfaction he gets from each additional unit consumed diminishes/decreases. Therefore the consumer is only willing and ready to buy those extra units only when the price is reduced. This means that the consumer is willing to pay high prices for the first units of the commodity since they give higher satisfaction and pay less for the extra units to be consumed because of less satisfaction hence the downward sloping of the demand curve.

4. The price effect. A reduction in price of commodity it brings in more consumers and as a result demand increases while with an increase in price of a good, many consumers abandon that good which reduces consumption and decreases demand.

5. Different uses of a commodity. For a commodity that has many uses, an increase in price makes consumers use it for only vital purposes hence a decrease in demand. However, when the

price decreases a commodity is put to various uses and its demand increases. For example, with the increase in the electricity tariffs, power is used primarily for domestic lighting, but when the tariffs are reduced, consumers use power for cooking, ironing, fans, and heaters.

6. Presence/behaviour of low income consumers. The low income earners buy more of a commodity when the price reduces because they now afford it than when the commodity's has increased and they cannot afford it hence the downward sloping of the demand curve.

ABNORMAL/REGRESSIVE /EXCEPTIONAL DEMAND CURVES

An abnormal demand curve is one that does not conform to the law of demand. Such curves do not slope down wards from left to right because more of a commodity may be demanded at a higher price or less of a commodity may be demanded at a lower price.

Abnormal demand curve is encountered in the following situations or circumstances.

1. **In case of goods of ostentation (snob value goods**); these are goods consumed by the people as objects of pride/pomp. They are regarded as status symbols and are basically bought to impress others and therefore consumers prefer to buy them at higher prices rather than at lower prices.

   The demand curve for the goods of ostentation is regressive or backward slopping implying that more of a commodity is demanded at higher prices.

An illustration of a regressive demand curve for goods of ostentation.

The demand for goods of ostentation is regressive at the upper level e.g. at point A in the diagram above.

2. **In case of giffen goods**; there are normally basic commodities which are consumed by the low income earners and their demand increases when their price rise. This is because these goods consume/ take up a large proportion of the consumer's income when their prices rise since the consumer can no longer afford alternative goods, i.e. the consumers abandons all other goods and concentrate on giffen goods.

   An illustration of the abnormal demand curve of a giffen good:

For the giffen goods, the demand curve is regressive at lower price levels.

Below price OP1, as prices fall, quantity demanded decreases.

In the graph above as the price falls from OP_1 to OP_2, quantity demanded reduces from OQ1 to OQ_2.

This creates some kind of paradox which is called **GIFFEN PARADOX.**

Giffen's paradox seek to explain why demand for a giffen commodity increases when price rises and reduces when price falls.

3. **In case of expectation of price changes**; if the price of a commodity increases and there is an expectation of further increase in price, consumers increase the demand of a commodity in order to avoid buying the commodity at an even much higher price in future, similarly when the price of the commodity decreases and there is an expectation of further decrease in price consumers buy less so that they can buy a commodity in future at an even much lower price.
4. **In case of an effect of an economic depression**; an economic depression is a period of low economic activities and during this period, prices are low and demand for the goods is correspondingly low because people have low income.
5. **In case of ignorance effect**; some consumers may mistake commodities of high prices to be of high quality which leads to greater quantities of a commodity being demanded at higher prices, this may be because of different packaging, designing, labelling etc.

THE FACTORS THAT AFFECT/INFLUENCE /DETERMINE THE DEMAND FOR A GIVEN COMMODITY(DETERMINANTS OF QUANTITY DEMANDED):

1. Price of a commodity; a high price of a commodity leads to low quantity demanded of such a commodity because consumers find it expensive to buy, while low price leads to high quantity demanded of a commodity because consumers find it cheap to buy.
2. The price of a substitute good. High price of a substitute good leads to high demand of the commodity in question, this is so because consumers find it cheaper to buy that commodity in question. However a low price of a substitute good leads to low demand for the commodity in question since consumers find it expensive to buy the commodity in question.
3. The price of complements/Price of complementary goods; High price of a complementary good leads to low demand for the commodity in question, this is so because less of the complementary good is bought which leads to low demand for the commodity in question since the two are used together in the satisfaction of human wants. However low price of a complementary good leads to high demand for a commodity in question, this is so because high quantity of a complementary good is bought since the two commodities are used together in the satisfaction of human wants.

4. The level of the consumer income; high level of consumer's level of income leads to high quantity demanded of a given commodity because the consumer has the capacity/ability to purchase the commodity. However low income of a consumer leads to low quantity demanded of a given commodity because of the low purchasing power of the consumer.
5. Consumer's tastes and preferences; favourable tastes and preferences lead to high demand for goods because many people go for that commodity while unfavourable tastes and preferences leads to low demand for commodity because few people go for that commodity
   .
6. The population/the market size; A high population size leads to high market for goods thus leading to high demand for such goods because there many potential buyers for such goods. On the other hand a low population size leads to low demand for goods because there a few potential buyers for such goods.
7. Government policy as regards taxation or subsidisation of a commodity; High level of taxation of a commodity leads to low demand for a commodity, this is so because high taxation makes the commodity expensive due to high price. On the other hand low level of taxation of the commodity leads to high demand for a commodity, this is so because low taxation makes the commodity cheap due to low price.
8. The level/nature of income distribution; even distribution of income leads to high demand for goods, this is so because of the high purchasing power of the majority of the people. However uneven distribution of income leads to low demand for goods because of the low purchasing power of the majority of the people.
9. Future price expectation; An expectation of high price of the commodity in future leads to a high demand for goods, this is so because consumers buy high quantity of goods currently so as to avoid buying at high prices. On expectation of a low price of a commodity in future leads to a low demand for goods, this is so because consumers buy low quantity currently so as to buy high quantity in future at low price.
10. Seasonal factors; Favourable season for a given commodity leads to high demand for a given commodity because there is apparent need for it. On the other hand unfavourable season/end of season leads to low demand for a good, this is so because there is no/limited apparent need for the commodity.
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11. The degree of advertising; A high degree of intensive and persuasive advertising lead to high demand for a good because of a high level of awareness by the consumers and being convinced to buy the good. On the other hand a low degree of advertising leads to low demand for a good, this is so because many consumers are not made aware of the existence of the good and convinced to buy.

Factors that lead to high demand for a commodity:

- Low price of a commodity
- High price of a substitute good
- Low price of a complementary good
- High level of consumer's income
- High population size
- Favourable tastes and preferences
- Favourable season/Beginning of a season
- High level of advertising
- Expectation of high future price
- Even distribution of income among the population
- Low level of taxation of a commodity

Factors that lead to low demand for a commodity:

- High price of a commodity
- Low price of a substitute good
- High price of a complementary good
- Low level of consumer's income
- Low/small population size
- Unfavourable tastes and preferences
- Unfavourable season/ End of a season
- Low level of advertising
- Expectation of low future price
- Uneven distribution of income
- High level of taxation of a commodity

WHY MAY CONSUMERS BUY LESS OF A COMMODITY WHEN IT'S PRICE FALLS?

- When the commodity is a giffen good.
- When there is anticipated further price reduction in future
- When consumers prefer goods of ostentation./Snob effect.
- When a fall in price is associated with a fall in quality.
- During a period of economic depression

- **WHY MAY CONSUMERS BUY MORE OF A COMMODITY WHEN ITS PRICE INCREASES?**

- When the commodity is a good of ostentation.
- When there is anticipated further increase in price in the future.
- In case of ignorance effect
- When there is persuasive advertising.
- During a period of economic prosperity.

CHANGE IN QUATITY DEMANDED

This refers to an increase or decrease in the amount of the commodity demanded due to changes in the price of a commodity, other factors that affect demand remaining constant.

It involves movement along the same demand curve either upwards or downwards.

A graph illustrating change in quantity demanded

Extension of the demand curve (an increase in quantity demanded)

This refers to a situation when more of a commodity is demanded due to a decrease in the price of the commodity, other factors that affect demand remaining constant. E.g. in the graph above the reduction in price from OP_0 to OP_2 leads to an increase in quantity demanded from OQ_0 to OQ_2

This is indicated by the downward movement along the same demand curve (A to C) as shown in the illustration above.

Contraction of the demand curve (a decrease in quantity demanded)

This refers to a situation when less of a commodity is demanded due to an increase in price of a commodity, other factors that affect demand remaining constant.

E.g. in the graph above an increase in price from OP_0 to OP_1 leads to a decrease in quantity demanded from OQ_0 to OQ_1.

This is indicated by an upward **movement along** the same demand curve i.e.(A to B)

CHANGE IN DEMAND

This refers to an increase or decrease in the amount of the commodity demanded due to changes in the other factors that affect demand, price remaining constant.

It involves a **shift** of the entire demand curve either to the right or to the left.

A graph illustrating a change in demand

In the graph above, at each possible price e.g. OP_0, quantity demanded can increase or decrease due to changes in other factors that affect demand.

An increase in demand is illustrated by the shift of the demand curve to the right i.e. $D_0 D_0$ to D_2D_2, quantity demanded increases from OQ_0 to OQ_2 at a constant price OP_0.

A decrease in demand is illustrated by the shift of the demand curve to the left. i.e. $D_0 D_o$ to D_1D_1. Quantity demanded decreases from OQ_0 to OQ_1.

FACTORS THAT CAUSE A CHANGE IN DEMAND FOR A COMMODITY

- **A change in price of substitute commodity;** An increase in the price of a substitute good leads to n increase in demand for the commodity in question; this is so because consumers find it cheaper to buy that commodity in question. On the other hand a decrease in the price of a substitute good leads to a decrease in demand for the commodity in question, this is so because consumers find it expensive to by the commodity in question
- **A change in the price of a complementary good**; an increase in price of a complementary good leads to a decrease in demand for the commodity in question, this is so because less of the complementary good is bought which leads to a decrease in demand for the commodity in question since the two are used together in the satisfaction of human wants. However a decrease in price of a complementary good leads to an increase in demand for a commodity in question, this is so because more quantity of a complementary good is bought since the two commodities are used together in the satisfaction of human wants

- 3. **Change in the level of income of the consumer**; An increase in the consumer's level of income leads to an increase quantity demanded of a given commodity because the consumer's increased capacity/ability to purchase the commodity. However a decrease in the income of a consumer leads to decrease in quantity demanded of a given commodity because of the reduced purchasing power of the consumer.
- 4.**A change in consumer's tastes and preferences**; A favourable change in tastes and preferences lead to an increase in demand for a good because more people are now in need of that commodity while unfavourable change in tastes and preferences leads to a decrease in demand for commodity because fewer people are now in need of that commodity.

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- 5. **A change in population size;** An increase in population size leads to an increase in the market for a good thus leading to an increase in demand for such a good because there more potential buyers for such a good. On the other hand a decrease in population size leads to decrease in demand for a good because there are fewer potential buyers for such a good.
- 6**.A change in the level of taxation on people's income**; An increased level of taxation on peoples income leads to a decrease in demand of a commodity due to the reduced purchasing power. However a decrease in the level of taxation on people's income leads to an increase in demand of a commodity due to the increased purchasing power of the consumer.
- **Changes in income distribution among households**; an improved level of income distribution among households leads to an increase in demand for a good, this is so because of the increased purchasing power of the majority of the people. However income distribution becoming uneven among households leads to a decrease in demand for a good because of the reduced purchasing power of the majority of the people.

- . **Expectation of future changes in the price of the commodity**; An expectation of an increase in price of the commodity in future leads to an increase in demand for a good, this is so because consumers buy more quantity of a good currently so as to avoid buying at an increased price. On the other hand expectation of a decrease in price of a commodity in future leads to a decrease in demand for a good, this is so because consumers buy less quantity of a good currently so as to buy more quantity in future at a reduced price.
- **A change in season**; Favourable change in season for a given commodity leads to an increase demand for that commodity because there is increased need for it. On the other hand unfavourable change in season/ season coming to an end leads to a decrease in demand for a good, this is so because there is reduced need for the commodity.

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- **Change in the level advertising;** an increased level of advertising leads to an in demand for a good because of the increased level of awareness by the consumers and being convinced to buy the good. On the other hand a decrease in the level of advertising leads to a decrease in demand for a good, this is so because of the reduced level of awareness among the consumers
- **Change in availability of credit facilities**; increased accessibility to credit facilities leads to an increase in demand of a given commodity, this is so because of the increased purchasing power of the consumer. On the other hand reduced accessibility to credit facilities leads to a decrease in demand for a commodity, this is so because of the reduced purchasing power of the consumer.

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AN INCREASE IN DEMAND

This is a situation where more of the commodity is demanded due **to positive/favourable changes** in other factors that affect demand when price is constant.

It is illustrated by the shift of the demand curve to the right as shown below.

A shift of the demand curve from D_0D_o to D1D1indicates an increase in demand of a commodity from Q_0 to Q_1 at constant price OP_0.

Causes of an increase in demand of commodity

1. An increase in the level of advertising.
2. An increase in price of substitute a good
3. An increase in consumer's income.
4. Favourable change in tastes and preferences/Tastes and preferences becoming favourable.
5. An increase in the population size.
6. A reduction in the level of taxation on people's income.
7. Increased access to credit facilities
8. A decrease in the price of a complementary good
9. Income distribution among households becoming fairer
10. Favourable change in season for a commodity

A DECREASE IN DEMAND

This is a situation where less of the commodity is demanded due to **unfavourable changes** in other factors that affect demand when price is constant.

It is illustrated by a shift of the demand curve to the left as shown below.

A shift of the demand curve from D_0D_0 to D_1D_1 illustrates a decrease in demand for a commodity from Q_0 to Q_1 at constant price OP_0.

Causes of a decrease in demand for a commodity

1. A decrease in the population size.
2. A decrease in the level of advertising
3. An increase in the price of a complement
4. A decrease in price of a substitute
5. Season becoming unfavourable
6. Decrease in consumer's level income
7. Tastes and preferences becoming unfavourable/Unfavourable change in tastes and preferences
8. A decrease in access to credit facilities.
9. An increased level of taxation on people's income.
10. Income distribution among households becoming unfair/uneven

CONSUMER BEHAVIOUR

A consumer is either an individual who uses goods and services to satisfy his wants, a household or government. A consumer is said to be rational i.e. whose major aim is to maximize utility.

Basic approaches to consumer behaviour

A. Cardinal utility theory

Utility is the satisfaction or pleasure derived from consumption of goods and services. It is assumed that, a consumer can know exactly how much satisfaction is derived from consumption of a good and such satisfaction is measured subjectively in units known as utils.

Assumptions of cardinal utility

1. It assumes that a consumer is a rational being who calculates and measures, chooses and compares utilities of different units of goods thus maximizing utility.
2. It assumes that a consumer possesses perfect knowledge of the choices open to him.
3. It assumes that all commodities available to a consumer are perfectly divisible into smaller units.
4. It assumes that as more a single commodity is consumed, total utility increases, reaches maximum level and then falls.
5. It assumes that there are no perfect substitutes, and that utilities are measurable in terms of money.

Categories of utility

1**. Total utility**. Total utility is the total satisfaction derived from consuming all different units of a given commodity in a particular period of time. For example, when a consumer buys apples, he receives them in units of 1, 2, 3, and 4. Two apples have more utility than one apple, three apples have more utility than two apples, and four apples have more utility than three apples.

2. **Marginal utility**. Marginal utility is the additional satisfaction derived from consumption of an extra unit of a commodity in a particular period of time. For example, the total utility of two apples is 35 utils, and when a consumer consumes the third apple total utility becomes 45 utils. Therefore, the marginal utility of the third apple is 10 utils (45-35 = 10). Marginal utility is given as:

$$Marginal\ utility = \frac{\text{Change in total utility}}{\text{Change in quantity of a good}}$$

3. **Marginal utility of income**; is the additional satisfaction derived from expenditure of an extra unit of income on goods and services.

4. **Marginal utility of money:** this is the change in total satisfaction derived from money that results from one unit of change in the quantity of money.

Table showing the relationship between total utility and marginal utility

Units of apples	Total utility	Marginal utility
0	0	-
1	20	20
2	35	15
3	45	10
4	50	5
5	50	0
6	45	-5
7	35	-10

The units of apples which a consumer chooses are in descending order of their utilities. The first apple is the best out of the lot available to him and hence gives him the highest satisfaction measured as 20 utils. The second apple is naturally the second best with lesser amount of utility than the first and has 15 utils.

Diagram showing the relationship between total utility and marginal utility

i. When total utility is increasing, marginal utility is decreasing
ii. When total utility is at maximum i.e. point X (satiety/bliss point), marginal utility is at zero i.e. point Y.(point of saturation)
iii. When total utility starts falling but still positive, marginal utility goes into negative (disutility)

THE LAW OF DIMINISHING MARGINAL UTILITY

The law of diminishing marginal utility states that as more and more units of a commodity are consumed, the satisfaction derived from each additional unit diminishes. The law of diminishing marginal utility is based on the following assumptions:

- It assumes that there should be a single commodity with homogeneous units wanted by an individual consumer.
- It assumes that there should be continuity in consumption of a commodity i.e. units of a commodity should be consumed in succession at a particular time.
- It assumes that there should be no change in taste, habit and income of a consumer. A change in any of the mentioned factors is likely to increase rather than diminish utility
- .It assumes that prices of different units of a commodity should remain the constant.
- It assumes that a consumer should be rational i.e. with a calculating mind, aims at maximizing utility.
- It assumes that all units of a commodity are of a standard size e.g. a sizeable glass to quench thirst and not a spoon.
- It assumes that a commodity should be divisible to allow successive consumption of a commodity.
- It assumes that the commodity should be of an ordinary type i.e. not superior good or goods of ostentation or addictive goods.

IMPORTANCE OF THE LAW OF DIMINISHING MARGINAL UTILITY

1. It explains the phenomenon in the value theory that price of a commodity falls when its supply increases, because with increase in stock of a commodity marginal utility diminishes.
2. The principle of progressive of taxation is based on this law. As a person's income increases, his/her rate of tax rises because marginal utility of money to him/her falls with rise in income.
3. It explains the diamond-water paradox of Smith. Because of its scarcity, diamond possesses a high marginal utility and therefore commands high price, since water is relatively abundant, its marginal utility is low, it commands low price yet is more useful than diamond.

4. It helps in bringing variety in production and consumption since consumption of the same good brings about boredom, hence its utility diminishes thus the desire for variety.

LIMITATIONS OF THE LAW OF DIMINISHING MARGINAL UTILITY

1. It does not apply to commodities like diamond or hobby goods like paintings, stamp collection whose satisfaction increases as more is consumed e.g. the utility of additional paintings is greater than earlier pieces bought.
2. It does not apply to indivisible durable commodities e.g. T.V sets, furniture etc whose consumption extends over a long period of time.
3. It does not apply for habitual or addictive commodities e.g. cigarettes, alcohol, opium, etc, whose marginal utility may not diminish instead the more one takes, the more he/she will need it.
4. It assumes homogeneity such that all units of a good should have the same quality and weight which is not the case.
5. It assumes that units of a commodity should be consumed in succession. However if consumption for a commodity is spaced or at random, utility will increase and the law will not apply.
6. It assumes there should be no change in habits, customs, fashion and income of consumers and when this happens the utility will increase instead of diminishing.

Relationship between the law of diminishing marginal utility and the demand curve

The relationship is that, as marginal utility falls, a consumer is willing to consume more units of a commodity at successively lower prices. Therefore, it is this law that explains the downward slope of a demand curve form left to right.

An illustration of the Marginal utility and the demand Curve:

B. Ordinal utility theory (indifference curve theory/Approach)

An indifference curve is one joining all those combinations of two goods that give equal satisfaction to a consumer. The curve explains consumer behaviour in terms of his/her preferences for different combinations of two goods e.g. X and Y.

An indifference curve is drawn from an indifference schedule.

An indifference schedule is a list of combinations of two goods such that a consumer is indifferent (having no particular interest in one of the said goods) to those commodities.

A table showing an indifference schedule of goods X and Y

Combination	X	Y
1	1	18
2	2	13
3	3	9
4	4	6
5	5	4

6	6	3

The consumer is indifferent whether to buy the first combination of units 18Y and 1X, or the fifth combination of 4Y and 5X or any other combination. All combinations give equal satisfaction to a consumer. When various combinations are plotted on a diagram and joined by a line, they form an indifference curve.

An illustration of an indifference curve:

Assumptions of indifference curve theory

1. It assumes that there are two goods X and Y with their prices being known and given.
2. It assumes that the consumer acts rationally so as to maximise utility.
3. It assumes that a consumer has perfect knowledge about prices of goods in the market.
4. It assumes that consumer's tastes, habits and income remain constant throughout the analysis.
5. It assumes that a consumer prefers more of X to less of Y, which implies a negatively downward sloping indifference curve that is convex in nature.
6. It assumes that utility is ordinal i.e. the consumer ranks his preferences according to satisfaction
7. The indifference curve can move to the right or to the left which means that there is an increase or decrease in both commodities X and Y respectively.

8. The indifference curve never touches either axes.

9. It assumes that two indifference curves can never intersect/ meet.

NB: Where there are several indifference curves on the same graph we have an indifference map.

A graph showing an indifference Map:

THE BUDGET LINE

This refers to a line which shows various combinations of two different commodities that consumers can purchase using a fixed income.

Example: If the price of commodity Y is shs.10 and that of commodity X is Shs. 5, then the budget line for the consumer who has fixed income of shs.100 would look like the one below.

Combination	**Commodity Y shs.10**		**Commodity X shs. 5**		**Total Expenditure**
	Quantity	**Value**	**Quantity**	**Value**	
A	10	100	0	0	100
B	8	80	4	20	100
C	5	50	10	50	100
D	2	20	16	80	100
E	1	10	18	90	100
F	0	0	20	100	100

An illustration of the budget line

Characteristics of a budget line:

- It has a negative slope from left to right.
- It is determined by the commodity's price and the income of the consumer. If the price and income changes the budget line rotates or shifts respectively.
- Combinations along the budget line are attainable while those below the budget line are attainable but do not provide the necessary satisfaction/ not all the income is used.
- Combinations above the budget line cannot be attained because of the limited income

CONSUMER'S EQUILIBRIUM USING THE INDIFFERENCE CURVE APPROACH

The consumer's equilibrium is reached by using the indifference curve and the budget line.

The consumer reaches the equilibrium at a point where the budget line is tangent to the indifference curve.

A graph showing consumer equilibrium using the indifference curve approach

At this point of equilibrium, the consumer takes a maximum combination with his fixed income. Here the consumer has no tendency to change from his combination.

The equilibrium is affected by changes in the price and income.

THE CONCEPT OF MARGINAL RATE OF SUBSTITUTION (MRS)

Marginal rate of substitution is the rate at which a consumer is willing to substitute one good for another along the same indifference curve. E.g. X for Y. It is a ratio of change in good Y to a given change in another good X. It is given by:

$$M.R.S = \frac{\mathrm{dy}}{\mathrm{dx}}$$

Sub-Topic 3: The theory of Supply:

SUPPLY

This is the amount of goods and services the producers are willing to produce and put on market for sale at a given price and at a given period of time.

Quantity supplied is a desired flow i.e. it measures how much producers would like to sell and not how much they actually sell.

Individual supply; this is the quantity of a commodity that a firm/producers are willing to sell at various prices during a given time.

Market supply; this refers to quantities of a commodity that all producers are willing to offer for sale to a particular market at various prices during a given time.

TYPES OF SUPPLY

1. **COMPETITIVE SUPPLY**

This is the supply of two or more commodities that use the same resources for their production such that an increase in the supply of one product leads to decline in the supply/production of the other. E.gs include; eggs and meat from chicken, Milk and meat from cows, crop and animal production from a piece of land etc.

2. **JOINT/COMPLEMENTARY SUPPLY**

This refers to the supply of two or more commodities from the same process of production/same source such that an increase in supply of one commodity leads to an increase in supply of the other. E.g. Meat and skin from slaughtered animals, petrol, diesel and paraffin from crude oil through fractional distillation.

3.**COMPOSITE SUPPLY**

This is the total supply of goods that are substitutes to one another.
OR: It refers to a supply of a good or service from more than one source
E.g. the supply of mutton, beef and chicken, or supply of tea, coffee and cocoa.

CLASSIFICATION OF SUPPLIERS

Suppliers are classified according to the number of them in the market of a given commodity. These include the following

I. **Monopoly**. This is a market situation where there is one supplier of a commodity which has no close substitutes.

II. **Oligopoly**

This is a market situation where there are a few firms in the market of a given product.

III. **Perfect competition**

This is a market situation where there are many suppliers competing with one another in the supply of homogeneous goods. Under perfect competition, supply of the commodity cannot be controlled.

IV. **Monopolistic competition**

This is a situation where the competition for the market is among the suppliers who through several devices make their goods artificially different.

V. **Duopoly**

This is a market situation/an industry/a form of imperfect competition or one in which there are only **two** firms.

PERIOD USED IN CONNECTION TO SUPPLY

Period refers to the time through which supply can be changed or not. There are three periods used in connection to supply namely;

a. **Very short run period**

In this period changes are not possible, no matter how high the demand for the commodity is.

b. **Short run period**

In this period, quantity supplied can be increased but it isn't possible to change the methods of production e.g. it is not easy to change from a hoe to a tractor in such a period.

c.Long run period

In this period the producer is able to change the methods of production so as to change the quantity supplied e.g. changing from a hoe to a tractor to increase supply.

THE SUPPLY FUNCTION

This is a statement which shows a technical relationshionship between quantity supplied and the major determinants of quantity supplied. It is summarised as follows:

$Qs= f(P_1, P_2,--------P_n, F_n, G, T, etc)$

Where: P_1 is the price of the commodity

P_2-------P_n is the price of the other commodity

F_1-------F_n are the factors of production

G------- Goal of the firm

T-------- Level of technology

THE SUPPLY SCHEDULE:

This is a table showing the quantity supplied of a commodity at various price levels over a period of time. It explains the law of supply which states that "the higher the price, the higher the quantity supplied of a commodity and the lower the price, the lower the quantity supplied of a commodity "ceteris paribus"/other factor being constant.

A table showing the supply schedule

Price per unit (Shs.)	Quantity supplied per month in(kg)

2000	20,000
3000	40,000
4000	70,000
6000	100,000

From the supply schedule, we can get the supply curve.

THE SUPPLY CURVE

This is a locus of points showing the quantity of a commodity supplied at different price levels in a given period of time i.e. it is a graphical representation of the supply schedule.
A supply curve slopes upwards from left to right indicating that more of a commodity indicating that more of a commodity is supplied at a higher price and less is supplied at a lower price.

An illustration of the supply curve.:

THE SLOPE OF THE SUPPLY CURVE

The supply curve is positively sloped i.e. it slopes from left to right showing the direct relationship between the price and quantity supplied of a commodity. The positive slope is explained by the following factors.

1. Entry of new firms in the industry
   When the price of a commodity increases, new firms are attracted to enter in the industry in order to enjoy the prospects of increasing profits, this leads to an increase in supply as price increases.

2. Profit motive
   As producers aim at maximizing profits, they supply more at higher prices in order to increase the profitability of the business. A fall in price of the commodity reduces the quantity supplied because it is no longer profitable for them to sell more at lower prices.

3. The struggle to maintain equilibrium in free market conditions
   As demand increases, price increases as well. Due to shortage, firms increase output in order to cover the shortage.
4. **Ease of diverting resources from the production of a commodity whose price has reduced to the production of a commodity whose price has increased.** For example, when the price of groundnuts increases, keeping the price of beans constant, producers easily divert resources i.e. land, labour, and capital, from production of beans to production of groundnuts. This leads to an increase in the supply of groundnuts as the price increases since producers expect higher profits.

ABNORMAL CURVES/REGRESSIVE/EXCEPTIONAL SUPPLY CURRVES

These are curves that do not obey/conform to the law of supply such that more of a commodity may be supplied at lower price or less of a commodity may be supplied at a higher price.

There are two types of regressive supply curves namely: backward bending/slopping supply curve of labour and fixed supply.

1. An illustration of the backward bending/ slopping supply curve of labour:

From the diagram above SL is the backward bendi**ng** supply curve of labour.
When the wage rate increases from OW_0 to OW_1 labour supply increases from OH_0 to OH_1
After point A workers start working for fewer hours because wage OW_1 was enough to meet their targets. At wage OW_2 labour supply reduces to OH_2

Causes of a backward slopping supply curve of labour

i. When labour has a strong preference for leisure due to accumulated incomes. Such a worker may prefer to work for less hours and spend most of the time enjoying leisure, even when the wage increases.
ii. The presence of target workers i.e. some individuals get employed with certain aims or targets within their minds and once they have achieved them, they offer less hours of work even when the wage has increased.
iii. Increased levels of progressive taxation because the harder the person works, the higher the amount of tax paid and therefore such a worker decides to work for less hours.
iv. When there is political instability in an area.
v. Reduction in real incomes due to high rates of inflation
vi. Poor health of workers. This is common in ageing population where people need enough time to rest.
vii. Poor conditions of work and poor relation between workers and management at work places.

2. **Fixed supply curve**
This is a situation where an increase in the price of a commodity does not have any effect on quantity supplied at all levels of price

An illustration of a fixed supply curve

In the figure above, despite the increase in price from OP_0 to OP_1 quantity supplied remains the same at OQ_0

Other situations that explain the regressive supply curve:

i. Speculative supply
   When prices increase and they are expected to increase further, sellers put less on the market, since they expect to get a lot more profits in the near future.
ii. Seasonal factors
   For perishable commodities, more is put on the market immediately after harvesting even if prices are low. More is put on the market because such goods cannot be stored after harvesting.
   Also in periods of catastrophe e.g. wars, draught, etc even if the prices are increasing, supply of the products will not increase.

FACTORS THAT AFFECT/ INFLUENCE/DETERMINE/ SUPPLY:

These factors are responsible for the changes in the amount of goods supplied. More of it is supplied when the factors are favourable and less is supplied when they are not favourable. The factors include;

1. **The price of a commodity**; high price of a commodity leads to high supply of a commodity, this is so because higher prices mean greater profits and so firms are attracted to supply high quantity of the commodity. On other hand low price of a commodity leads to low supply because of the low profits earned which discourages production hence low supply.
2. **Price of a jointly supplied good**. High price of a jointly supplied good leads to high supply of the commodity in question, this is so because the high price of the jointly supplied good leads to high quantity supplied of that commodity which leads to high supply of the commodity in question since they are both supplied from the same source/process of production. On other low price of a jointly supplied good leads to low supply of the commodity in question, this is so because the low price of the jointly supplied goods leads to low quantity supplied of that commodity which leads to low supply of the commodity in question because they are both supplied from the same source/ process of production
3. **Price of a competitively supplied commodity/good**. High price of a competitively supplied good leads to low supply of the commodity in question; this is so because the high price of the competitively supplied good leads to high supply of it which leads to low supply of the commodity in question because they use the same resource for their production. On the other hand low price of a competitively supplied good leads to high

supply of the commodity in question, this is so because the low price of the competitively supplied good leads low supply of it which leads to high supply of the commodity in question because they use the resource for their production.

4. **The cost of production**; high cost of production leads to low supply of a commodity, this is so because the low profit margin enjoyed by the producers. On the other hand low cost of production leads to high supply of a commodity, this is so because of the high profit margin enjoyed by the producers
5. **The level / state of technology**; the use of advanced techniques /methods of production leads to high output/supply of a given commodity, this is so because of the high level of efficiency in production. On the other hand use of poor/ primitive/rudimentary techniques of production leads to low output/supply of a commodity , this is so because of the low level of efficiency in production.

6. **The goal/objective of the producer**; A producer whose aim is profit maximisation produces low output, this is so because he/she wants to wants to restrict output and sell a at high profit per unit sold. On the other hand a producer whose aim is sales maximisation produces high quantity of output; this is so because he wants to make profits by maximising sales.

7. **Government policy on production of the commodity**; Favourable government policy on production of a commodity in term of low taxes imposed on a commodity leads to high supply of a given commodity, this is so because it leads to low cost of production which implies high profits. On the other hand unfavourable government policy on production in terms of high taxes leads to low supply of a given commodity's this is so because it leads to high cost of production which implies low profits.
8. **The gestation period of a commodity**. A long gestation period leads to low supply of a given commodity, this so because it take a long time to produce and supply such a commodity. On other hand a short gestation period leads to high supply of a given commodity since it takes a short period to produce and supply such a commodity.
9. **Number of producers/ suppliers in the market**; A large number of producers leads to a high supply of a good, this is so because supply is from many producers, However a small

number of producers leads to a low supply of a good since there are few producers to supply the commodity.

10. **Natural conditions/ factors**. Favourable natural factors lead to high supply of especially agricultural products; this is so because it favours the production of such products. However unfavourable natural conditions lead to low supply of especially of agricultural products because they discourage/limit their production.
11. **The political climate/ atmosphere**; Political stability leads to high supply of a given commodity, this is so because peace and stability enables people to engage in production of goods since they are not scared of losing their lives and property. However political instability leads to low supply of goods, this is so because it discourages production of goods, since people are scared of losing their lives and property.
12. **The market size/ demand for the commodity**. A large market size leads to high supply of a commodity; this is so because large market implies high profit margins thus motivating them to produce high output levels. On the other hand a small market size leads to low supply of a commodity because a small market size leads to low profit margins hence discouraging production.
13. **Level of entrepreneurial skills**. Presence of good entrepreneur skills leads to high supply of a commodity because they are many people to initiate businesses and sustain them. On the other hand low level of entrepreneurial skills leads to low supply of a commodity, this is so because there are few people to initiate businesses and sustain them.
14. **Terms of service/ working conditions**. Favourable terms of service like good working conditions, prestige of work lead to high supply of a given commodity, this is so because it motives workers to work hard leading to high output levels. On the other hand poor working conditions lead to low supply of a given commodity, this is so because it discourages workers to work hard thus leading to low output levels.
15. **The land tenure system**. A favourable land tenure system promotes production leading to high supply of a given good; this is so because producers have easy access to land leading to high production levels. On the other hand poor land tenure system discourages production leading to low supply of a given good, this is so because of the difficulty in accessing land thus leading to low production levels.

Factors that lead to high supply of a commodity:

- High price of the commodity
- High price of a jointly supplied good
- Low price a competitively supplied good
- Low cost of production
- Advanced/High state of technology
- The goal of the producer being sales revenue maximisation
- Favourable government policy on production of a commodity\
- Short gestation period
- Large number of producers
- Favourable natural factors
- Political stability/Favourable political climate/atmosphere
- A large market size
- High level of entrepreneurial skills
- Favourable terms of service/Good working conditions
- Favourable land tenure system

Factors that lead low supply of a commodity:

- Low price of the commodity
- Low price of a jointly supplied good\
- High price of a competitively supplied good
- High cost of production
- Poor state of technology
- The goal of the produce being profit maximisation
- Unfavourable government policy on production
- Long gestation
- Small number of producers
- Unfavourable natural factors/conditions
- Political instability/Unfavourable political climate/atmosphere
- A small market size.

- Limited/low levels of entrepreneurial skills
- Poor terms of service/Poor working conditions
- Poor land tenure system

CHANGE IN QUANTTITY SUPPLIED

This refers to an increase or decrease in the quantity supplied of a commodity due to the change in the price of a commodity, when other factors that affect supply remain constant.
Change in quantity supplied is illustrated by movement along the same supply curve, either upward or downwards

A graph illustrating change in quantity supplied

In the graph above, the downward movement along the same supply curve indicates a contraction in supply/ decrease in quantity supplied.i.e. (A to B). This is due to a fall in price from OPo to OP1, indicating a decrease in quantity supplied from OQo to OQ1.

Decrease in quantity supplied is a situation when less of a commodity is supplied due to a decrease in the price of the commodity, when other factors that affect supply are held constant.
The upward movement along the same supply curve indicates an extension in supply/an increase in the quantity supplied. i.e.(A to C). This is due to an increase in price from OPo to OP2 indicating an increase in quantity supplied from OQo to OQ2.

An increase in quantity supplied is a situation when more of a commodity is supplied due to an increase in the price of a commodity, when other factors that affect supply remain constant.

CHANGE IN SUPPLY

This refers to an increase or a decrease in quantity supplied of a commodity due to changes in the other factors that affect supply when the price of the commodity is constant.

A graph illustrating change in supply

At each possible price(OP_0)in the graph above, quantity supplied can increase or decrease because of changes in other factors affecting the quantity supplied.
Increase in supply illustrated by the shift of the supply curve to the right i.e. S_oS_o to S_1S_1. Quantity supplied increases from OQ_0 to OQ_1 at a constant price OP_0.

FACTORS THAT CAUSE A CHANGE IN SUPPLY OF A COMMODITY:

- **Change in the price of a jointly supplied good**. An increase in the price of a jointly supplied good leads to an increase in supply of the commodity in question, this is so because an increased price of the jointly supplied good leads to an increased quantity supplied of that commodity which leads to an increase in supply of the commodity in question since they are both supplied from the same source/process of production. On other a decrease in the price of a jointly supplied good leads to a decrease in supply of the commodity in question, this is so because the reduced price of the jointly supplied goods leads to a decrease in quantity supplied of that commodity which leads to a fall in supply of the commodity in question because they are both supplied from the same source/ process of production
- **Change in the price of a competitively supplied commodity/good**. An increase in the price of a competitively supplied good leads to a decrease in supply of the commodity in question; this is so because the increased price of the competitively supplied good leads to

increased supply of it which leads to a decrease in supply of the commodity in question because they use the same resource for their production. On the other hand a decrease in the price of a competitively supplied good leads to an increase in supply of the commodity in question, this is so because the reduced price of the competitively supplied good leads reduced supply of it which leads to increased supply of the commodity in question because they use the resource for their production.

- **Change in the cost of production**; an increase in the cost of production leads to a decrease in supply of a given commodity, this is so because the reduced profit margin enjoyed by the producers. On the other hand reduced cost of production leads to an increase in supply of a given commodity, this is so because of the increased profit margin enjoyed by the producers.
- **Change in the level / state of technology**; Improvement in the techniques /methods of production leads to increased output, this is so because of the increased level of efficiency in production. On the other hand decline in the state of techniques of production leads to a decrease in supply, this is so because of the reduced level of efficiency in production.

- **Change in the goal/objective of the producer**; A change in the goal of the producer from sales revenue maximisation to profit maximisation leads to decrease in supply of a given commodity, this is so because the producers want to fewer out so as to charge an increased price per unit sold, On the other hand the change in the goal of the producer from profit maximisation to sales revenue maximisation leads to an increase in supply of given commodity because producers want to increase sales by charging reduced prices.

- **Change in government policy on production of the commodity**; Favourable change in government policy on production of a commodity in term of reduced taxes imposed on a commodity leads to an increase in supply in supply of a given commodity; this is so because it leads to reduced costs of production which leads to increased profits. On the other hand unfavourable change in government policy on production in terms of increased taxes leads

to a reduction in supply of a given commodity, this is so because it leads to increased costs of production which leads to reduced profits.

- **Change in the number of producers/ suppliers in the market**; An increase in the number of the producers leads to an increase in the supply of a given good, this is so because of increased number of producers for a given good. However a decrease in the number of producers, leads to decline in supply of a given good, this is so because of the reduced number of producers for that good.
- **Change in the natural conditions/ factors**. Favourable change in natural factors lead to an increase in supply of a given good especially agricultural products; this is so because it favours increased production of such products. However unfavourable change in natural conditions lead to a decline in supply of especially of agricultural products because they discourage/limit increased production of such a good.

- **Change in the political climate/ atmosphere**; Favourable change in Political climate leads to increased supply of a given commodity, this is so because peace and stability enables people to engage increased production of a given good since they are not scared of losing their lives and property. However unfavourable change in political leads to reduced supply of a given good, this is so because it discourages increased production of a given good, since people are scared of losing their lives and property.
- **Change in the market size/ demand for the commodity**. A reduction in the market size leads to a reduction in supply of a given commodity; this is so because it reduces the profit margins thus discouraging producers to increase output levels. On the other hand an increase in the market size leads to an increase in supply of a commodity because the increased market size leads to reduced profit margins hence discouraging producers from increasing output.
- **Change in the level of entrepreneurial skills**. Improved/increased level of entrepreneurship leads to increased supply of a given commodity, this is so because of increased ability to initiate businesses and sustain them. However a decline in the level of entrepreneurship leads to a decrease in the supply of a given commodity, this is so because of the reduced ability to initiate businesses and sustain them

- **Change in the terms of service/ working conditions**. Improved term of service leads to increased supply of a given commodity, this is so because of the increased motivation of the workers, On the other hand decline in the terms of service leads to a decline in the supply of a given commodity since the workers are discouraged by the poor working conditions,

  .
- **Change in the land tenure system**. An improvement in the land tenure system promotes production leading to an increase in supply of a given good; this is so because producers have easy access to land leading to increased production levels. On the other unfavourable change in the land tenure system discourages production leading to a decrease in supply of a given good, this is so because of the difficulty in accessing land thus leading to reduced production levels.

<u>An increase in the supply of a commodity</u>

This is a situation when more of a commodity is supplied due to favourable changes in other factors that affect supply when price is constant. It involves a shift of the supply curve to the right.

An illustration of an increase of a commodity.

From the above illustration an increase in supply is indicated by the shift of the supply curve from S1S1 to S2S2, leading to an increase in supply from OQ1 to OQ2.

Factors that lead to an increase in supply of a commodity

- Natural factors becoming favourable
- An improvement in techniques of production.
- A fall/reduction in the cost of production.
- An increase in the number of suppliers in the industry.
- An increase in the market size./ An increase in the demand for the commodity.
- Reduction in the gestation period for a commodity.
- Change in the goal of the firm/producer from profit maximization to sales revenue maximisation.
- Favourable government policy on production of a commodity e.g. reduced taxes/ Increased subsidisation.
- An improvement in the political climate.
- An improvement in the entrepreneurial skills
- An improvement in the land tenure system.
- An improvement in terms of service./ working conditions
- An improvement in the state of infrastructure/ distribution system
- An increase in the price of the jointly supplied good
- A decrease in the price of a competitively supplied good

Decrease in supply

This refers to a situation when less of a commodity is supplied due to unfavourable changes in other factors that affect supply when price is constant. It is indicated by a shift of the supply curve to the left.

An illustration of the decrease in supply.

From the illustration above the decrease in supply is indicated by a shift of the supply curve S1S1 to S2S2 leading to a decline in supply from OQ1 to OQ2.

<u>Factors that lead to a decrease in supply of a commodity.</u>

- An increase in the cost of production
- Natural factors/conditions becoming unfavourable
- A decline in the level of technology./methods of production
- A reduction in the number of suppliers/producers in an industry/Exit of some firms from the industry.
- Political atmosphere/ climate becoming unfavourable
- A decrease in the market size/ a decrease in the demand for a commodity

- Change in the goal of a firm/producer from sales revenue maximization to profit maximization.
- Government policy on the production of the commodity becoming unfavourable e.g. increased taxes/reduced subsidies.
- A fall in the entrepreneurial skills/ability
- Worsening terms of service/ Decline in the working conditions.

- Breakdown of infrastructures
- Decrease in the price a jointly supplied product
- Increase in the price of a competitively supplied commodity.
- Decrease in the supply of factor inputs e.g. capital, raw materials etc

Sub-Topic 4: Market Equilibrium:

EQUILIBRIUM PRICE: Equilibrium price is price established in the market when quantity demanded is to equal quantity supplied of a commodity. Equilibrium price also changes from time to time. It is also known as **market clearing price**. i.e. it is set or fixed at a point of intersection of demand and supply curves in a free enterprise economy

Equilibrium price is important in the following ways:

- . It shows efficiency in resource allocation as there are no surpluses or shortages in the market.
- It shows economic welfare maximization because decisions of producers agree with those of the consumers.
- It helps the government in the policy of price control by avoiding the effects of minimum and maximum price

EQUILIBRIUM QUANTITY:

This is the quantity exchanged when the market is in balance, quantity demanded and quantity supplied are equal, therefore there is no shortage or surplus in the market which means that neither buyers or sellers are inclined to change the price or the quantity which is an essential condition for equilibrium. The only quantity that accomplishes this task is at the intersection of the demand curve and supply curve.

An illustration of Equilibrium price and Equilibrium quantity:

In the illustration above, point E is the equilibrium point and OPe represents the equilibrium price while OQe represents the equilibrium quantity.

Deriving the market equilibrium using the demand and supply functions:

Market equilibrium is derived by using the demand function and the supply function where quantity demanded (Qd) is equal to quantity supplied (Qs)

When solving for equilibrium price and quantity you need to have a demand function and a supply function.

E.g. if your monthly demand function is Qd= 10000- 80P and your monthly quantity supply function is Qs= 20P, Then set Qd= Qs and solve.

Solution:

Qd = Qs

i.e. 10000-80P= 20P

10000-80P+80P=20P+80P

10000=100P

Therefore ;

P= 10000/100

=100.

Equilibrium price = 100

NB: Equilibrium price has no units.

To find equilibrium quantity we substitute equilibrium price(100) into either the demand function or supply function as follows;

(a)**Using the demand function**

Qd =10000-80P

=(10000)-80 *100

=10000- 8000

=2000.

(b) Using the supply function:

Qs =20P

=20*100

=2000

Therefore Qd = Qs(as shown by the above substitution above):

Exercis e:

Given that (i) Qs = -12+12p and Qd = 36-4P

(ii) Qd= 24-4P and Qs= -8+8P

(iii)Qd= 500-50P and Qs =50+25P

(iii)Qd= 24-2P and Qs= -12+4P

Calculate the ;(a) Equilibrium price

(b) Equilibrium quantity.

THE CONCEPT OF CONSUMER'S SURPLUS

Consumer's surplus is the difference between what a consumer is willing to pay and what he/she actually pays for the commodity.

OR

It is the extra utility/ additional satisfaction a consumer enjoys without paying for it.

It is given by the following formula:

NOTE: Consumer's surplus is limited by: *income inequality among consumers, changing marginal utility of money, differences in tastes and preferences and presence of goods of ostentation.*

Illustration of the consumer surplus

The is shown as the area under the demand curve and the prevailing market price

In the illustration above if the consumer purchases a commodity at $OP_{e,}$ we note the following;

- Total utility is equal to OP_1EQ_e
- Expenditure by the consumer is OP_eEQ_e

The consumer surplus is illustrated by the shaded area below the demand curve above the market price at which the consumer buys the commodity i.e.OP1EPe

Example:

Using the consumer's demand schedule below, calculate the consumer surplus when the market price is shs.150.

Price consumer is willing to pay	300	250	200	150	100	50
Units purchased	1	2	3	4	5	6

Method 1:

Consumer surplus = Planned expenditure - Actual expenditure

But actual expenditure = Market price × Number of units purchased.

= (300+250+200+150) - (150×4)

=Shs. 900 - 600

=Shs. 300

Question 2:

You are provided with the following table;

Price consumer is willing to pay	Units purchased
4500	1
3750	2
3000	3
2250	4
1500	5
750	6

Calculate the consumer surplus if 5 units of a commodity are purchased at shs.1500.

PRODUCER'S SURPLUS

This refers to the difference between what the producer is willing to charge and what he actually charges for the commodity.

Or

Producer's surplus refers to the excess earnings between what the producer was willing to receive for the commodity and what he/she actually receives after selling it.

The producer's surplus occurs when a producer receives a price for his produce which is above the additional costs he incurred to produce the product.

Producer's surplus is given by the following formula

Producer's surplus = **Actual revenue –Expected revenue.**

An illustration of the producer's surplus.

In the illustration above the producer's surplus is shown by the shaded area above the supply curve and below the equilibrium price. i.e. OPeEC.

Formula: producer surplus= actual revenue – planned revenue

Example

Price per unit	300	350	400	450	500	550	600	650
Quantity supplied	1	2	3	4	5	6	7	8

Given the market price is shs.550. Calculate the producer surplus if 6 units are sold.
Producer surplus =**Actual revenue – Planned revenue**
But actual revenue = units sold*market price
= (550*6) – (300+350+400+450+500+550)
= 3300 - 2550
= Shs. 750

Sub-Topic: The Concept of Elasticity of Demand:

ELASTICITY

Elasticity refers to the measure of the degree of responsiveness of the dependent variables to the independent variables
Dependent variables may be the quantity demanded or quantity supplied while independent variables are the factors which influence the above dependent variables e.g. Price of the commodity Price of other commodities, consumer's income

Elasticity can be taken to mean reaction or response of producers or consumers.

Elasticity is of two types:

a. Elasticity of demand
b. Elasticity of supply

ELASTICITY OF DEMAND

This refers to a measure of the degree of responsiveness of quantity demanded of a commodity to changes in the factors that affect demand. E,g.price of the commodity, Consumer's level of income and price of related commodities.

Elasticity is considered for only three major determinants of demand namely:

- Price of the commodity in question
- Price of related commodities
- The level of income of the consumer

Therefore there are **three** different concepts of elasticity of demand namely

- Price elasticity of demand
- Cross elasticity of demand s
- Income elasticity of demand

PRICE ELASTICITY OF DEMAND

This refers to a measure of the degree of responsiveness of quantity demanded of a commodity to changes in the price of the commodity in question. i.e. it shows how much quantity demanded of a commodity responds to a change the price of that commodity.
Mathematically it is given by the following formula

P.E.D= (-)Proportionate change in quantity demanded of a commodity
Proportionate change in the price of the commodity in question

Or

P.E.D =(-) percentage change in quantity demanded

Percentage change in the price of a commodity

OR: $$PED = \frac{-\Delta Q}{\Delta P} \times \frac{P}{Q}$$

NB: A negative sign is multiplied into the formular to make the answer positive, since price elasticity of demand never in negative.

Where P is given as $\frac{P1+P2}{2}$ and Q is given as $\frac{Q1+Q2}{2}$

Diagram

INTERPRETATION OF PRICE ELASTICITY OF DEMAND

1.PERFECTLY /COMPLETELY INELASTIC DEMAND: **.** Perfectly inelastic demand is one where price changes have no effect at all on quantity demanded of a commodity. This means that quantity demanded remains constant in spite the price changes. The coefficient is equal to zero (PED = 0).

A graph illustrating a perfectly inelastic demand curve:

In the graph above, changes in price from OP_o to OP_1 leaves the quantity demanded of a commodity constant at OQ_0 e.g. demand of cigarettes.

3. FAIRLY INELASTIC DEMAND**.** This is one where a very big percentage change in price leads to a small percentage change in quantity demanded of a commodity. The coefficient is greater than zero but less than one (PED>0<1).

A graph illustrating a fairly inelastic demand curve:

In the graph above a very big percentage in price e.g. OPo to OP1, leads to a very small percentage change in quantity demanded from OQo to OQ1.

Unitary elasticity of demand. Unitary elasticity of demand is one where the percentage change is price is exactly equal to percentage change in quantity demanded of a commodity. The coefficient is equal to one (PED = 1).

An illustration of a unitary elasticity of demand:

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Fairly elastic demand/ Elastic demand. This is one where a very small percentage change in price leads to a big percentage change in quantity demanded of a commodity. The coefficient is greater than one but less than infinity (PED>1<∞).

In the graph above a small percentage in price from OP1 to OP2 leads to a very big percentage change in quantity demanded of a commodity from OQ1 to OQ2.

Perfectly elastic demand. Perfectly elastic demand is one where at a prevailing price consumers are willing to purchase the commodity infinitely.(as much as they want) and none at all at even a slightly higher price. The coefficient is equal to infinity (PED = ∞).

An illustration of a perfectly elastic demand curve:

In the graph above consumers are willing to buy as much as they want at the prevailing price i.e. OP1 and none at all even at all even a t a slightly higher price.

Methods of Measuring Elasticity of Demand

1. **Point elasticity of demand.** Point elasticity of demand is one that is measured at one point on the demand curve.
   Point elasticity of demand is mathematically expressed as:

$$\mathbf{PED} = \frac{-\Delta \mathbf{Q}}{\Delta \mathbf{P}} \times \frac{\mathbf{P}}{\mathbf{Q}}$$

An illustration of point elasticity of demand:

- At the mid-point of the demand curve (point M), the price elasticity of demand is equal to one, which is unitary elasticity.
- At any point between point M and Point Q the price elasticity of demand is greater than zero but less than one, it is fairly inelastic.
- At any point between Point M and Point P the price elasticity of demand is greater than one but less than infinity and it is said to fairly elastic.
- At point P, the price elasticity of demand is equal to infinity (∞), hence perfectly elastic
- At point Q the price elasticity of demand is equal to zero and it is perfectly inelastic.

2. **Arc elasticity of demand.** Arc elasticity of demand is one that is measured between two points on the demand curve.

   Arc elasticity of demand is mathematically expressed as:

$$\mathbf{PED} = \frac{-\Delta \mathbf{Q}}{\Delta \mathbf{P}} \times \frac{\mathbf{P}}{\mathbf{Q}}$$

Where P is given as $\frac{P1+P2}{2}$ and Q is given as $\frac{Q1+Q2}{2}$

An illustration of Arc elasticity of demand:

From the above illustration you can calculate the Arc elasticity between point A and point B using the formular above

FACTORRS DETERMINING/AFFECTING/INFLUENCING PRICE ELASTICITY OF DEMAND

- **Availability of substitutes;**
  Commodities with close substitutes have price elastic demand because an increase in the price of the commodity with close substitutes leads to a big reduction in quantity demanded of that commodity. This is so because consumers have alternative goods which they can turn to. However c commodities with no close substitutes have price inelastic demand because as the price increases, consumers continue purchasing that commodity since there no alternative commodities to turn to.

- **Degree of necessity of the commodity;**
  Demand is price inelastic for essential goods (necessities) because with increase in price of such commodities consumers continue buying almost the same amount since they cannot do without them. On the other hand demand for luxuries/non essential goods is price elastic because with an increase in price of such goods consumers reduce their drastically, since they can do without them.

- ***Level of durability/perishability of the commodity***. ; The demand for durable commodities is price inelastic demand because as their prices reduce consumer do not do not buy, this is because they can be used for a long time without replacement e.g, television sets, refrigerators, cookers and furniture. On the other hand, the demand for perishable commodities is price elastic, this is because with a fall in their prices more of them are bought cannot be kept for a long time hence need constant replacement e.g. food stuffs.

- **The proportion of income spent on the commodity/the commodity takes**; A commodity that takes a small proportion of the consumer's income are price inelastic ,this

is so because as their prices increase, the consumer continues buying them since they do not feel the pinch of the price increase. On the other hand the demand for commodities that take a big proportion of one's income are price elastic, this is so because as their prices increase, the consumers reduce their consumption since they feel the pinch of the price increase .

- **Level of addiction in the use of the commodity**
  Demand for the commodities consumed out of a habit e.g. alcohol, cigarettes is price inelastic this is so because with an increase in the price of such a commodities consumers continue buying almost the same amount of the commodity since it is not easy break/abandon the habit once developed. On the other hand the demand for commodities consumed not out of a habit are price elastic, this is so because as their price increase consumers reduce their consumption with ease since they have no strong attachment to them. .
- **Level of income of the consumer**.; The demand for commodities among high income earners is price inelastic, this is so because with increase in the price of the commodity, such a consumer continues buying the same amount of the commodity, since he/she can afford to buy the commodity at whatever price. On the other hand, the demand for commodities among low income earners is price elastic, this is so because with the increase in the price of the commodity, such a consumer reduces the amount consumed of the commodity demanded since he/she cannot afford to buy at a high price.

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- **The number of uses the commodity has**. The demand for commodities with several uses e.g. electricity for cooking, lighting, ironing etc is price elastic, this is so because with an increase in price of the commodity the consumer reduces on some of the uses and remains with only those that are essential. On the other hand he demand for commodities with few uses is price inelastic, this is so because as their prices increase the consumer continues buying them since they need them for those few uses.

- **Level of convenience of getting the commodity** ; The demand for commodities that are conveniently acquired are price inelastic, this is because as their prices increase, consumers continue buying them since they the reach of the consumer. On the other hand the demand that are not conveniently acquired are price elastic, this is so because as their prices increase, consumers reduce their consumption since they are not easily accessible.

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- **Time period(short run or long run);** The demand for a commodity is price inelastic in the short run, this is so because with increase in the price of the commodity, the consumer

continues buying, since he/she cannot easily change the habit or find a cheaper substitute. On the other hand the demand for a commodity is price elastic in the long run, this is so because with increase in price of a commodity the consumer reduces the amount consumed of the commodity, since the time is long enough to change the habit and find a cheaper substitute.

- **Speculation about price changes**; The demand for a commodity is price inelastic when there is an expectation of further increase in price in the future, this is so because with increase in the price of the commodity, the consumer continues buying so as to avoid buying it in future at a much higher price. On the hand the demand for a commodity is price elastic when there is an expectation of a further reduction in price in the future, this is so because with a decrease in the price of the commodity the consumer reduces the amount bought, so as to buy more at a much lower price in the future

- **Seasonal changes;** The demand for a commodity during a favourable season is price inelastic, this is so because with an increase in price of a commodity, the consumer continues buying such a commodity due to the apparent need for that commodity. On the other hand the demand for a commodity during unfavourable season is price elastic, this is so because with a reduction in the price of the commodity, the consumer reduces the amount consumed of a commodity due to the reduced apparent need for the commodity.

- **Possibility of postponement of demand for the commodity:**
  The demand for goods, the use of which can be postponed is price elastic, this is so because as their prices increase consumers reduce their consumption since their use is not very urgent. On the other hand demand for a good, the use of which cannot be postponed is price inelastic, this is because as their prices increase consumers continue buying them because their use is very urgent
  .
- **Level of awareness of availability of cheaper goods/ level of advertising**.
  The demand for commodities which are highly advertised is price inelastic this is so because with an increase in price of a commodity, the consumers continue buying the commodity since advertising positively influences them to continue buying the commodity. On the other hand the demand for a commodity which is not is not intensively advertised is price elastic, this is so because with increase in the price of the commodity, the consumer reduces the amount consumed of the commodity, this is so because they are not positively influenced to continue buying the commodity

- **<u>Availability of complements.;</u>** The demand for goods which are jointly used is price inelastic, this is so because with increase in price of one of them, the consumer continues buying it because one cannot be used without the other e.g. one who wants to continue using his/her car must continue buying the fuel even at an increased price. On the other hand demand for commodities which are not jointly used is price elastic, this is so because with an increase in price of the commodity the consumer reduces the quantity demanded of the commodity, this is so because one can be used without the other.

Factors Responsible For Inelastic Demand for a Commodity:

- **Presence of few substitutes.**
- **Presence of complementary commodities**
- **High degree of necessity.**
- **High degree of addiction.**
- **Existence of durable commodities.**
  .
- **Small proportion of income spent on a commodity.**
- **High level of consumer's income.**

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- **Fewer number of uses of a commodity.**
- **High level of convenience of getting a commodity.**
- **Short-run period.**
  .
- **Expectation of future price increase.**

.

- **Favourable seasonal demand.**

- **High level of advertising**
- **Commodities whose use cannot be postponed to future use**

Factors Responsible for Elastic Demand for a Commodity:

- **Presence of close (many) substitutes.**
  .
- **Existence of independent commodities.**
- **Presence of luxurious commodities.**
  .
- **Presence of non-addictive commodities.**
- .
- **Existence of perishable commodities**
  .

- **Large proportion of income spent on a commodity**
- **Low level of consumer's income**
- **Variety of uses of a commodity.**
- **Low level of convenience of getting a commodity**
- **Long-run period.**
  .
- **Expectation of future price fall**
  .
- **Unfavourable seasonal demand.**

.

- **Low level of advertising.**
- **High degree of postponement of a commodity.**
  .

Practical importance of Price Elasticity of Demand to the Government

- **It guides in taxation policy.** Government earns more revenue by taxing highly those commodities with inelastic demand because consumers buy at any price for example cigarettes, beer and fuel and for commodities with elastic demand a low tax is levied because imposing high taxes on them leads to a reduction in their demand.
- **It guides in subsidisation policy.** Government grants subsidies to only those local industries whose commodities have elastic demand and the producer benefits in terms of cost reduction hence charging low prices.
- **It guides in nationalization policy.** Commodities whose demand is inelastic such as clean and safe water, gas and electricity are provided by the state because consumers are likely to buy them at relatively high prices in case they are left in the hands of the private investors therefore government has to nationalize such enterprises.
- **It guides in determining incidence of a tax.** Commodities whose demand is inelastic, the incidence of a tax successfully falls on a consumer through increased price by the producer whereas commodities whose demand is elastic, the incidence of a tax successfully falls on the producer because an increase in price of a commodity scares away the consumers, since it is hard for the producer to shift the tax burden to the consumer.

- **It guides on foreign exchange rate manipulation;** This applies where there is a floating exchange rate system. In order to improve the balance of payment position of a country, the government allows the country's currency to depreciate which discourages importation because they become more expensive thus reducing foreign exchange expenditure. On the other hand allowing the country's currency to depreciate makes exports cheap, which

attracts more buyers leading to increased foreign exchange earnings hence improving the balance of payment position of a country.

- **It guides on devaluation of a currency of a country.** Devaluation is successful when price elasticity's of demand for both imports and exports are price elastic. This is so because a slight decrease in the prices of exports leads to a big increase in quantity demanded of exports thus increased foreign earnings leading improvement in the balance of payment position. On the other hand a slight increase in the prices of imports leads to a big reduction in the quantity of imports, thus improving the balance of payments due to reduced import expenditure.

Practical importance of Price Elasticity of Demand to the Producer

- **It is used as a basis of price discrimination.** Under monopoly carrying out discrimination is based on the price elasticity of demand in each market. In a market where demand is inelastic the producer charges a high price, this is so because consumers with inelastic demand can afford to buy the commodity at whatever price. On other hand where demand is elastic, a low price is charged this is so because consumers with elastic demand cannot afford to buy at a high price.

- **It guides in wage determination/It is helpful in determining wages of a particular type of labour.** If the demand of labour in an industry is price elastic, the trade union tactics/efforts to raise wages cannot be successful because employers can easily substitute labour, on the other hand if the demand of labour in an industry is price inelastic, the efforts of trade union to raise wages will succeed because employers can be convinced to raise wages of such workers, since employers cannot easily substitute labour.
.

- **It guides in pricing of commodities.** The concept of price elasticity of demand helps the producers in pricing their output. If the demand for a product is elastic, the producer gains more profits by fixing a low price and therefore maximising sales. In case the demand is inelastic, the producer gains more profits by fixing high prices, because increase in price does not affect quantity demanded.

Practical importance of Price Elasticity of Demand to a Consumer:

- **It guides consumers in planning their expenditure.** . A consumer spends more on commodities whose demand is price inelastic because they take a high proportion of the consumer's expenditure; on the other hand a consumer spends less on commodities whose demand is price elastic because they take a small proportion of the consumer's expenditure

INCOME ELASTICITY OF DEMAND:

This refers to a measure of the degree of responsiveness of quantity demanded of a commodity to changes in the income of a consumer.

Mathematically it is given by the following formula:

Y.E.D = proportionate change in quantity dd of a commodity

Proportionate change in consumer's income

OR: $YED = \frac{\Delta Q}{\Delta Y} \times \frac{Y}{Q}$

OR Y.E.D= percentage change in quantity demanded of a commodity

Percentage change in consumer's income

OR: $YED = \frac{\% \Delta Q}{\% \Delta Y}$

Example
Assuming that a person's salary increased from Shs 15,000 to Shs 20,000 and quantity demanded of a commodity decreased from 10 kg to 6 kg. Calculate income elasticity of demand.

$$YED = \frac{\Delta Q}{\Delta Y} \times \frac{Y}{Q}$$

$$YED = \frac{6-10}{20000-15000} \times \frac{15000}{10}$$

$$YED = -1.2$$

Interpretation of coefficients of income elasticity of demand

- If the coefficient is negative, the nature of the commodity is inferior. This means that as the level of income increases the consumer buys less of the commodity.
- If the coefficient is positive, the nature of the commodity is a normal good. This means that as consumers income increases quantity demanded of increases and vice-versa.

- If the coefficient is zero, the nature of the commodity is an absolute necessity such as salt. This means that changes in consumer's income do not affect quantity demanded of the commodity at all.
- **Income elastic**
  This is when the income elasticity of demand is greater than one meaning that quantity demanded changes proportionately more than change in income. A slight change in the consumer's income leads to a very large change in quantity demanded.
- Income inelastic
  This is when income elasticity of demand is less than one but greater than zero. This means that a large percentage change in income leads to a proportionately less percentage change in quantity demanded.

Importance of income elasticity of demand

1. It guides in taxation policies. For high income groups taxes tend to high whereas for low income groups taxes are low.
2. It helps to determine the nature of goods. For normal goods the coefficient is positive, for absolute necessity the coefficient is zero and for inferior goods the coefficient is negative.
3. It helps to forecast future demand for commodities as level of income changes.

CROSS ELASTICITY OF DEMAND: This is the measure of the degree of responsiveness of quantity demanded of one commodity to changes in price of other commodities/ related commodities

Cross elasticity of demand is mathematically expressed as:

1. Cross elasticity of demand $= \frac{\text{Percentage change in quantity demanded of X}}{\text{Percentage change in price of Y}}$

$$\text{CED} = \frac{\%\,\Delta Qx}{\%\,\Delta Py}$$

2. Cross elasticity of demand $= \frac{\text{Proportionate change in quantity demanded of X}}{\text{Proportionate change in price of Y}} \text{ x } \frac{\text{Old Income}}{\text{Old Quantity}}$

$$\text{CED} = \frac{\Delta Qx}{\Delta Py} \times \frac{Py}{Qx}$$

Example
Given that the price of commodity Y increased from shs. 100 to shs. 150 and quantity demanded of a related commodity X increased from 50 kg to 90 kg. Calculate the cross elasticity of demand.

$$CED = \frac{\Delta Qx}{\Delta Py} \times \frac{Py}{Qx}$$

$$CED = \frac{90-50}{150-100} \times \frac{100}{50}$$

$$CED = 1.6$$

Interpretation of coefficients of cross elasticity of demand
1. If the coefficient is positive, the two commodities are substitutes i.e. an increase in price of commodity Y leads to an increase in quantity demanded of commodity X.
2. If the coefficient is negative, the two commodities are complements i.e. an increase in price of commodity Y leads to a decrease in quantity demanded of commodity X
3. If the coefficient is zero, the two commodities are independent (not related at all) i.e. quantity demanded of X is not affected by price changes of commodity Y

Importance of cross elasticity of demand:

- Used to classify commodities. If the cross elasticity of demand is positive, the goods are substitutes while if the cross elasticity of demand is negative then the goods are complementary goods
- Use in the classification of markets; If the cross elasticity of demand is infinite, the market is perfectly competitive, while if the cross elasticity of demand is zero the market is oligopoly, yet where the cross elasticity is high (elastic) then the market is imperfect.
- Used in the pricing policy. The cross elasticity of demand helps firms to decide whether to increase the price of the related goods or not.

ELASTICITY OF SUPPLY
Elasticity of supply is the measure of the degree of responsiveness of quantity supplied of a commodity to changes in factors that influence supply such as price of the commodity, prices of competitively supplied commodities, prices of jointly supplied commodities, the gestation period.

PRICE ELASTICITY OF SUPPLY

Price elasticity of supply is the measure of the degree of responsiveness of quantity supplied of a commodity to changes in its own price.

Price elasticity of supply is mathematically expressed as:

1. Price elasticity of supply $= \frac{\text{Percentage change in quantity supplied}}{\text{Percentage change in price}}$

$$\text{PES} = \frac{\%\,\Delta Q}{\%\,\Delta P}$$

2. Price elasticity of supply $= \frac{\text{Proportionate change in quantity supplied}}{\text{Proportionate change in price}} \text{ x } \frac{\text{Old Price}}{\text{Old Quantity}}$

$$\text{PES} = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

Price elasticity of supply has a positive coefficient.

Categories of Price Elasticity Of supply

Fairly elastic supply. Elastic supply is one where a very small percentage change in price leads to a big percentage change in quantity supplied of a commodity. The coefficient is greater than one but less than infinity (PES>1<∞).

An illustration of a fairly elastic supply curve.

From the diagram above a small percentage change in price(OPo to OP1) leads to a very big percentage change in quantity supplied of the commodity.(OQo to OQ1)

2. Perfectly elastic supply. Perfectly elastic supply is one where at a prevailing price or above that producers are willing to supply more all they can and none at all below that price. The coefficient is equal to infinity (PES = ∞).

An illustration of a perfectly elastic supply curve.

From the graph above producers are willing to supply all they can at price OP or above price and none at all even at a slightly lower price.

3.Fairly inelastic supply. Inelastic supply is one where a very big percentage change in price leads to a small percentage change in quantity supplied of a commodity. The coefficient is greater than zero but less than one (PES>0<1).

A graph illustrating a fairly inelastic supply curve:

From the illustration above a very big percentage change in price(OP1 to OP2) leads to a very small percentage change in quantity supplied (OQ1 to OQ2).

4. Perfectly inelastic supply. Perfectly inelastic supply is one where price changes have no effect at all on quantity supplied of a commodity. This means that quantity supplied remains constant in spite the price changes. The coefficient is equal to zero (PES = 0).

An illustration of a perfectly inelastic supply curve:

From the illustration above changes in price from OP1 to OP2 leaves quantity supplied unaffected at OQ1.

5. Unitary elasticity of supply. Unitary elasticity of supply is one where the percentage change in price is exactly equal to percentage change in quantity supplied of a commodity. The coefficient is equal to one (PES = 1).

An illustration of unitary elastic supply curve:

From the illustration above the percentage change in price from OPo to OP1 is equal to the percentage change in quantity supplied from OQo to OQ1

Factors Influencing Price Elasticity of Supply:

- **The cost of production**
  The supply of a commodity is price inelastic when the costs of production are high, this is so because with increase the price of the commodity, producer are reluctant to increase supply, due to the low profit margin. On the other hand supply of a commodity is price elastic when the costs of production are low, this is so because with increase in the price of the commodity, producers quickly supply due to high profit margin.

- **Gestation period.** The supply of a commodity with a short gestation period is price elastic, this is so because with increase in the price of such a commodity, producers in position to increase supply within a short period of time. On the other hand the supply of a commodity with a long gestation period is price inelastic, this is so because with increase in price of such a commodity, producers are not able to increase supply in a short period of time

- **Level of technology.** The supply of a commodity produced using advanced technology is price elastic; this is so because with increase in the price of such a commodity, the producers are to increase the supply of such a commodity due to the use of such modern technology. On the other hand the supply of a commodity produced using poor technology is price inelastic, this is so because with increase in the price of such a commodity, the producers are not able to increase supply due to the inefficiency of such technology

- **Perishability/Durability of a commodity:** The supply of perishable commodities is price inelastic , this is so because with increase in the price of such a commodity, the producers cannot increase supply once existing stock have been exhausted since such goods cannot be stored for a long time. On the other hand the supply of durable commodities is price elastic, this is so because with increase in the price of such goods, the producers able to supply by getting from the stores since the goods can be stored from the stores

- **Time period.** The supply of a commodity is price inelastic in the short run. This is so because with increase in the price of the commodity, the producers cannot easily increase the supply of the commodity, since the time is too short to increase the supply. On the hand the supply of a commodity is price elastic in the long run period, this is so because with increase in the price of the commodity, the producers can easily increase supply since the time is long enough to allow production and supply of more goods.

- **Natural factors especially in agricultural sector.** The supply of a commodity is price elastic during favourable natural factors such as adequate rainfall, fertile soils; this is so because with an increase in price of a commodity, the producers increase production and supply of a commodity since the conditions are favourable for the activity. On other hand the supply of a commodity during unfavourable natural factors such as prolonged drought, infertile soils is price elastic, this is so because with increase in the price of the commodity the producers are not able to increase production and supply of the commodity since the conditions are unfavourable for the activity

- **Degree of freedom of entry of firms in production/ Ease of entry of new firms in the industry.** The supply of a commodity is price elastic when there is freedom of entry of firms in an industry; this is so because with increase in the price of such a commodity it induces other firms to join production since there are no restrictions on entry. On the other hand the supply of a commodity is price inelastic when there is restricted entry into the industry; this is so because with increase in the price of a commodity is not easily increased since there are few producers due to restricted entry into the industry.

- **Political climate.** The supply of a commodity is price elastic when there is political stability this is so because with increase in the price of the commodity, the producers easily increase production and supply of a commodity, since such situations allow producers to produce more output as they live a settled life. On the other hand supply of a commodity is price inelastic; this is so because with an increase in the price of the commodity, the producers are not in position to increase supplies of the commodity since such situation do not allow production to easily take place as people do not live a settled life.

- **Future price expectations.** The supply of a commodity is price inelastic when there is an expectation of a further future price increase this is so because with an increase in the

price of the commodity, the producers are reluctant to supply more of the commodity since they want to supply more in future at a much higher price. On the other hand the supply of the commodity is price elastic when there is expectation of a further future price reduction, this is so because with a decrease in the price of the commodity, the producers supply more of the commodity due to fear to sell their output at much lower price.

- **Availability of excess capacity:** The supply of a commodity is price elastic when the are firms are operating excess capacity, this is so because with increase in the price of a commodity, the producers easily increase production and supply of the commodity since the resources are not yet exhausted. On the other hand the supply of a commodity is price inelastic when the firms are operating at full capacity, this is so because with increase in the price of the commodity, the producers are not able to increase production and supply of the commodity.

- **Government policies of subsidization and taxation.** The supply of the commodity is price elastic when government subsidizes producers this is so because subsidies artificially reduce costs of production which encourages producers to produce and supply more of the commodity. On the other hand the supply of the commodity is price inelastic when the government highly taxes the producers ,this is so because high taxes increases the costs of production which discourages producers thus reducing the supply of a given commodity

Factors responsible for elastic supply of a commodity

- **Low costs of production.**
- **Shorter gestation period.**
- **Improved state of technology.**
- **Existence of durable commodities.**
- **Long-run period.**
- **Favourable natural factors especially in agricultural sector.**
- **Freedom of entry of firms in production.**
- **Favourable political climate.**
- **Expectation of further future price fall.**
- **Presence of excess capacity.**
- **Favourable government policy of subsidization.**

Factors responsible for inelastic supply of a commodity

- **High costs of production.**.

- **Longer gestation period.**
- **Low level of technology.** .
- **Presence of perishable commodities.**
- **Short-run period.**
- **Unfavourable natural factors especially in agricultural sector.**
- **Restricted entry of firms in production.**
- **Unfavourable political climate.**.
- **Expectation of further future price rise.** .
- **Existence of full utilization of available resource.**
- **Unfavourable government policy of taxation.**

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IMPORTANCE OF PRICE ELASTICITY OF SUPPLY:

- Used in the devaluation policy. The supply of exports should be price elastic such that producers of exports should be able to increase production and supply more when there is increase in demand for exports,

- Used in government in formulating taxation policy. More tax revenue is be got by the government taxing goods that have got inelastic supply, this is so because imposition of taxes on such goods does not affect their supply greatly.

- Used to determine the incidence of a tax. A producer pays more of a tax when elasticity of supply is inelastic and pays less when the price elasticity of supply is elastic

- Used to determine the wage rate. Labour which has an inelastic supply earn a high wage because it is not easy to get such labour and labour with an elastic supply earns a low wage because it is easily acquired

Sub-Topic7: PRICE MECHANISM AND PRICE CONTROL:

Price mechanism is a system in a free enterprise economy where by prices in the market are determined by the market forces of demand and supply and prices act as an automatic signal in the allocation of resources.

Under price mechanism there is **consumer sovereignty** where a consumer takes an upper hand in influencing the decision of the producers concerning what to produce, where to produce, for whom to produce when to produce and how to produce. And there seems to be an invisible hand that allocates resources.

It follows that whenever a consumer buys a product, he is casting a vote in favour of that product. The more he buys the greater the producer is willing to supply on the market.

Price mechanism is based on certain assumptions which include the following;

1. Factors of production are mobile i.e. factors are free to move from where they are lowly paid to where they are highly rewarded. This condition applies in case of labour skills are easily acquired and thus labour can easily move from one occupation to another.

2. Perfect knowledge of the market. Consumers and producers have complete knowledge of the prices at which goods and services and factor inputs are bought respectively. There is no persuasive advertising to influence the pattern of demand; however there may be informative advertising.
3. Producers aim at maximising profits and produce highly priced commodities and therefore new firms are attracted by profits.
4. There is no government intervention in the market transactions.
5. The prices of goods and services are all determined by the forces of demand and supply.
6. The government just keeps law and order.
7. Consumers and producers are rational. The consumers aim at maximising satisfaction and therefore buy from the cheapest sources while the producers aim at minising costs so as to maximise profits
8. There is free entry and exist of firms in the production of goods and services.
9. There are many buyers and sellers in the market, none of whom can influence supply and price of a commodity.

THE ROLE OF PRICE MECHANISM IN RESOURCE ALLOCATION IN AN ECONOMY:

POSITIVE ROLE:

1. Provides automatic adjustment between supply and demand. This is because an increase in demand for a commodity attracts more new firms into production of that commodity results into increased supply thereby overcoming the shortage.

2. Determines the type of technology to be used in production. The producers employ the method of production which is efficient but at the same time affordable so as to produce high quality of products so as to attract more buyers and hence make more profits.

3. Promotes consumer sovereignty/determines for whom to produce i.e. producers supply goods for those who can afford to buy them or for those who are ready and willing to buy at high price so as to enable them maximise profits.

4. It determines the income distribution .Producers buy resources from resource owners and therefore income is distributed among the producers and resource owners. Those who own resources which are highly priced earn higher incomes as compared to those who own resources that are not highly priced.

5. Determines where to produce /determines the location of the production unit. Producers establish their business units where they can easily access customers who are ready to pay high prices for their products so as to enable them maximise profits.

6. Determines when to produce. Production always takes place at the time when consumers' demand dictates so and therefore they are ready to pay high prices. This is common with products that are demanded seasonally.

7. Ensures production of better quality goods/ products. This is so because of competition in production as a result of many producers engaging in production.

8. Guides on what to produce. Resources are allocated to production of those commodities that command high prices in the market so as to enable producers maximise profits.

9. Ensures efficiency of firms. Resources are usually allocated to the production of those commodities where minimum costs are incurred in order to fetch high prices and maximise profits.

10. Guides in resource allocation (factor market). Factors of production are attracted to areas where they are highly priced or highly paid.

11. Promotes/encourages innovations and inventions. This is intended to improve the method so as to minimise the costs of production in order to maximise profits.

12. Provides variety of goods. This is so because there are many producers in the market who produce a variety of goods so meet the different tastes and preference of the consumers in order to maximise profits, hence widening consumer's choice.

NEGATIVE ROLE OF PRICE MECHANISM IN RESOURCE ALLOCATION:

1. It leads to uneven distribution of income or Promotes income inequality/disparity. People with more productive resources earn more income than those with less productive resources.

2. It leads to the emergency of monopoly power and its associated evils. This happens when inefficient firms are outcompeted and driven out of the industry and the few that remain enjoy monopoly power which may lead to production of poor quality products, overcharging consumers etc.

3. It leads to consumer exploitation and this is due to ignorance of the consumers about the market conditions which results into charging them very high prices for goods and services.

4. It leads to emergency of unemployment. This happens when inefficient firms are outcompeted in business. Unemployment may also arise when firms adopt capital intensive techniques of production in bid to maximise profits by minimising costs. This results into technological unemployment.

5. There is divergence between the private and social benefits and costs. This is because price mechanism emphasizes the element of profit. Therefore producers aim at achieving their private benefits while creating social costs for the society pollution (water, air, and noise).

6. It does not adjust/respond to rapid structural changes in the economy. This is because it depends on the forces of demand and supply and for producers to make any changes may wait for signals from the consumers.

7. It leads to wastage of resources this is due to wasteful competition and duplication of activities.

8. Makes the economy susceptible to economic instabilities such as price fluctuations. /leads to economic instabilities i.e. inflationary and deflationary tendencies. The producers tend to increase prices of goods and services with increased demand.

9. Leads to distortion of consumer choices through persuasive advertisements/ encourages impulsive purchases.

10. Inability to allocate resources to public and merit goods. This is mainly because it would be impossible to charge them prices since free riders are not excluded in their consumption. In price mechanism producers aim at maximising profits so they tend to ignore such goods.

11. Leads to misallocation of resources. Price mechanism may not allocate resources to priority areas /socially profitable ventures since it is guided by profit motive. This may lead to disappearances of cheap commodities on which the ordinary people survive

MERITS /ADVANTANTAGES/POSITIVE IMPLICATIONS OF PRICE MECHANISM:

- It encourages the production of better quality goods because production is competitive which encourages improvement in the quality of the products.
- It promotes incentives for hard work leading to increased production. The profit motive encourages hard work, innovations and inventions hence increased productivity.
- It encourages efficient allocations of resources because producers produce in response to consumer's demand therefore cases of over production and under production are avoided hence no wastage of resources.
- It avails a wide variety of goods and services to consumers because there are many producers producing different commodities and this widens consumer's choice.
- It encourages flexibility in production because producers adjust to changes in the market conditions basing on changing price for the commodity.
- It is a cheap system to maintain/ it reduces the costs of administration because of limited government control since adjustments are automatic i.e. by forces of demand and supply.
- It encourages arbitrage i.e. it facilitates regional distribution of goods which benefits producers since goods are transferred from areas of plenty where prices are low to areas of scarcity where prices are high.
- Provides an incentive to economic growth. Higher prices and profits encourage large industrial establishments to spend huge sums of money on research, new and better techniques of production which leads to more production of goods and services hence economic growth.
- It helps in the distribution of income. Income goes only to those who own resources. People owning large quantities of resources which are highly priced earn more income than those owning few resources.
- It decentralises economic powers. This is so because individual households make their own economic decisions/Promotes consumer sovereignty.
- It leads to increased employment opportunities. This is due to increased economic activities/ increased investment as people strive to make more profits.

DEMERITS / DEFECTS/ SHORTCOMINGS/NEGATIVE IMPLICATIONS OF PRICE MECHANISM

- It leads to uneven distribution of income or income inequality/disparity i.e. people with more productive resources earn more income than those with less productive resources.

- It leads to the emergency of monopoly power and its associated evils. This happens when inefficient firms are outcompeted and driven out of the industry and the few that remain enjoy monopoly power which may lead to production of poor quality products, overcharging consumers etc.

- It leads to consumer exploitation and this is due to ignorance of the consumers about the market conditions which results into charging very high prices of goods and services.

- It leads to emergency of unemployment. This happens when inefficient firms are outcompeted in business. Unemployment may also arise when firms adopt capital intensive techniques of production in bid to maximise profits by minimising costs. This results into technological unemployment.

- There is divergence between the private and social benefits and costs. This is because price mechanism emphasizes the element of profit. Therefore producers aim at achieving their private benefits while creating social costs for the society e.g environment degradation of resources, pollution (water, air, and noise).

- Inability to adjust to rapid structural changes in the economy. This is because it is forces of demand and supply and for producers to make any changes may wait for signals from the consumers.

- It encourages wasteful competition and duplication of activities and this result into resource wastage as a result of intensive persuasive advertisements.

- Makes the economy susceptible to economic instabilities such as price fluctuations. The producers tend to increase prices of goods and services with increased demand. This leads to inflationary tendencies in the economy.

- Leads to distortion of consumer choices through persuasive advertisements.

- Inability to allocate resources to public and merit goods. This is mainly because it would be impossible to charge them prices since free riders are not excluded in their consumption. In price mechanism producers aim at maximising profits so they tend to ignore such goods.

- Leads to misallocation of resources. Price mechanism may not allocate resources to priority areas socially profitable ventures since it is guided by profit motive. This may lead to disappearances if cheap commodities on which the ordinary people survive.

Factors influencing price mechanism in resource allocation

- Availability of capital. Adequate capital leads to proper allocation of resources to more productive areas in order to produce more goods and services thus promoting price mechanism in resource allocation. On the other hand, inadequate

capital leads to inefficient allocation of resources due to reduced capacity to produce goods and services needed on the market thus limiting price mechanism in resource allocation.

- Level of labour skills. Existence of unskilled and semi-skilled labour leads to low productivity and efficiency in production of goods and services which limits the operation of price mechanism. On the other hand, highly skilled labour leads to high level of productivity and efficiency in the production of goods and services thereby promoting price mechanism in resources allocation.

- Level of entrepreneurial abilities. High level of entrepreneurial abilities promotes initiative to undertake business ventures with aim of making profits thereby promoting efficient allocation of resources. On the other hand, low level of entrepreneurial abilities limits initiative to undertake business ventures in fear of risks involved thereby limiting price mechanism in the allocation of resources.

- Degree of monopoly power/number of firms. High degree of monopoly power fails free operation of price mechanism as entry into economic activities by many firms is restricted to only one firm thereby failing price mechanism in resource allocation. On the other hand, where there is no monopoly, entry into economic activity by many firms is open which makes forces of demand and supply operate automatically to influence resource allocation.

- Level of government interference. High level of government interference in form of setting prices for commodities, fixing quotas for producers, heavy taxation of the producers limits free operation of price mechanism in the allocation of resources. On the other hand, low level of government interference promotes price mechanism in resource allocation since forces of demand and supply operate automatically.

- Level of ignorance/awareness of producers and consumers. High level of consumer ignorance denies them the right to consume from cheapest sources while producer ignorance denies them the right to discover the cheapest sources of raw materials leading to inefficient allocation of resources. On the other hand, high level of awareness about market conditions by both the producers and consumers leads to efficient allocation of resources by price mechanism.

- Ability to forecast future trends. In a situation where producers are able to predict changes in conditions of demand and supply in future, price mechanism allocates resources effectively. On the other hand, price mechanism fails to allocate resources effectively where producers are unable to predict changes in conditions of demand and supply in future.

- The degree of rationality of consumers and producers. Price mechanism fails where producers aim at maximizing profits because they produce less output and consumers are after utility maximization by looking for cheapest goods and

services. On the other hand, price allocates resources efficiently where producers aim at sales maximization which makes consumers increase consumption as goods and services become cheap.

- The state of technology. Poor state of technology promotes high level of inefficiency due to increased costs of production thereby hindering efficient allocation of resources by price mechanism. On the other hand, better/ improved state of technology promotes high level of efficiency due to reduced costs of production thereby promoting efficient allocation of resources.

- The state of infrastructure. Poor infrastructure in the form of poor roads, inadequate storage facilities and power shortages limits the ability of producers to exploit available resources and limits arbitrage leading to inefficient allocation of resources. On the other hand, developed infrastructure encourages producers to exploit available resources and promotes arbitrage due to reduced costs of production leading to efficient allocation of resources.

- The degree of mobility of factors of production. High degree of factor mobility especially labour promotes price mechanism as such factors can easily adjust to prevailing conditions in the level of economic activity basing on price indicators. On the other hand, high degree of factor immobility limits proper allocation of resources as factors of production need significant training to acquire appropriate skills to perform certain tasks in alternative economic activities

LIMITATIONS OF PRICE MECHANISM IN ALLOCATION OF RESOURCES

- Government interference/ regulation. High level of government interference in form of setting prices for commodities, fixing quotas, imposing high taxes for producers fails free operation of price mechanism in terms of allocating resources.
- Existence of monopoly. High degree of monopoly power fails free operation of price mechanism as entry into economic activity by many firms is restricted to only one firm thereby failing price mechanism.
- Immobility of factors of production. High degree of factor immobility limits proper allocation of resources as factors of production need significant training to acquire appropriate skills to perform certain tasks in alternative economic activities.
- Inability to forecast future trends. Price mechanism fails to allocate resources effectively where producers are unable to predict changes in conditions of demand and supply in future.
- Limited entrepreneurship. Low level of entrepreneurial abilities limits initiative to undertake business ventures in fear of risks involved thereby hindering efficient allocation of resources.
- Irrationality of producers and consumers. Price mechanism fails where producers aim at maximizing profits because they produce less output and consumers are after utility maximisation by looking for cheapest goods and services.

- Limited capital. Inadequate capital leads to inefficient allocation of resources due to reduced capacity to produce goods and services needed on the market.

- Limited skilled labour. Existence of unskilled and semi-skilled labour leads to low productivity and efficiency in the production of goods and services which limits the operation of price mechanism.
- Poor infrastructures. Poor infrastructure in the form of poor roads, inadequate storage facilities and power shortages limits the ability of producers to exploit available resources and limits arbitrage leading to inefficient allocation of resources.

- Ignorance about market conditions High level of consumer ignorance denies them the right to consume from cheapest sources while producer ignorance denies them the right to discover the cheapest sources of raw materials leading to inefficient allocation of resources.
- Poor state of technology. Poor state of technology promotes high level of inefficiency due to increased costs of production thereby hindering efficient allocation of resources by price mechanism.
- Political instability. This makes the production of goods and services very difficult because investments are destroyed while new investors are scared

REASONS FOR GOVERNMENT INTERFERENCE WITH THE PRICE MECHANISM

- To reduce unemployment. The price mechanism causes unemployment by pushing out inefficient firms out of production and government interference aims at ensuring availability of jobs to citizens by ensuring that inefficient firms are not thrown out of business.
- To ensure economic stability. The government intervenes through price control to ensure stability in prices of goods and incomes of producers.
- To ensure production of essential goods and services, as these may not be produced under the price mechanism.
- To regulate production and provision of undesirable products (demerit goods) which do not promote economic and social welfare although they are profitable for example pornographic literature, dangerous cheap liquor, fire arms, drugs etc.
- To reduce on the level of income inequalities that result from private ownership of resources and freedom of competition. The government interferes through progressive taxation so as to reallocate resources and attain equity in income distribution.
- To control the growth and regulate the activities of monopolies brought about by competition among producers. The government intervenes through high taxation of monopolists to avoid overcharging of the consumers and the production of low quality goods and services.

- To cover consumer ignorance due to market imperfections. This is done through encouraging formation of consumer associations.

- To reduce on social costs such as pollution and resource exhaustion that affect people's welfare. This is through setting up regulatory bodies that regulate the actions of firms in resource exploitation.
- To cater for the provision of public and merit goods that cannot be provided through market forces of demand and supply because they are profitable.
- To carry out proper economic planning for the entire economy and promote economic growth. This is through effecting necessary adjustments in time of structural changes for example, war, famine, floods etc,

WAYS OF REDUCING THE DEFECTS/DEMERITS OF PRICE MECHANISM OR MEASURES BEING TAKEN TO CONTROL SHORT COMINGS OF PRICE MECHANISM

1. Introducing progressive taxation where the rich are taxed more than the poor to reduce income inequalities. In such a case, the revenue realised is used to provide essentials to the poor.

2. Providing incentives to protect/prop up weak firms to enable them to continue producing to reduce unemployment in case they drop out as a result of being outcompeted.

3. Issuing of licences. These are issued to regulate the activities of the investors by denying licences to producers of demerit goods. Licensing also controls over exploitation of resources.

4. Encouraging formation consumer's protection organization/Associations. This is done to create awareness among the consumers on issues concerning the prices and the quality of the goods on the market so that they are not cheated and subjected to poor quality products

5. Use of price controls to ensure stable prices e.g. the government can set maximum price to protect consumers from being over charged by greedy businessmen and minimum price to protect producers being exploited by the consumers during periods of bumper harvests which results into excess supply.

6. Putting in place anti monopoly policies. There is need to control dominancy of monopolists through legislation and nationalisation. Adopting anti-monopoly policies for example, anti-merger laws, taxation o f monopoly profits, and removal of patents. This is intended to reduce on the formation and mal practices of monopoly and its associated evils.

7. Provision of public goods and merit goods. The government can allocate resources to the provision of public and merit goods which are usually ignored by private investors under price mechanism.

8. There is need for planning by the government to reflect structural changes, detect future needs of society and direct economic growth.

9. Enact laws or putting laws in place/setting up regulatory bodies so as to regulate the exploitation of resources and avoid environmental degradation e.g. putting in place laws to protect wetlands. Setting up of regulatory bodies for instance electricity regulatory authority, national environment management authority, and national forestry authority. Such regulatory bodies are intended to control over exploitation of resources.

10. The government can do rationing; this involves direct action by public authorities of apportioning scarce supplies to all households on a regular basis. Rationing helps in checking fluctuations due to acute shortages most especially for goods that are necessities.

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PRICE CONTROLS:

Price control refers to the situation where the government fixes the prices of commodities either a maximum price to protect consumers or a minimum price to protect producers. Such a price which is fixed is referred to as an administered price.

Minimum price Legislation: This is the setting/fixing of prices of commodities by the government above equilibrium price below which it becomes illegal to buy the commodity. It protects producers.

Maximum Price Legislation: This is the setting/ fixing of prices of commodities by the government below the equilibrium price above which it becomes illegal to sell the commodity. It protects consumers.

Price support: *This is where the government buys the surplus output in the market arising out of fixing the minimum price in order to avoid discouraging producers.*

MAXIMUM PRICE/PRICE CEILING

Maximum price is the legal price set by the government below the equilibrium price above which it is illegal to sell the commodity.

The major aim of fixing the maximum price is to protect consumers from being exploited by profit hungry traders.

The maximum price is also referred to as price ceiling.

An illustration of Maximum price/Price ceiling:

In the diagram above, the maximum price is set at OP_1 below the equilibrium price OPe.

REASONS FOR SETTING A MAXIMUM PRICE/PRICE CEILING:

1. To protect consumers from being exploited by the business men through overcharging.
2. To encourage the consumption of a particular commodity, most especially merit goods.
3. To reduce the gap between the rich and the poor because a maximum price enables the poor to acquire commodities at fair prices.
4. To maintain price stability through controlling inflation by setting a maximum price.
5. To control monopoly tendencies because producers are not expected to charge a price higher than the maximum price.

MERITS OF SETTING A MAXIMUM PRICE:

1. It protects the consumers from being over charged by the producers.
2. It helps to make commodities available to all income groups of people in the economy.
3. It reduces income inequalities since the low income earners are also able to afford or acquire the basic commodities since they are at fair prices.
4. It enables to maintain price stability in an economy since the sellers are not supposed to sell the commodities above the maximum price.
5. It helps to control monopolistic tendencies and its associated evils such as overcharging, since the monopolist is not supposed to sell above the maximum price.

DEMERITS/ DISADVANTAGES/NEGATIVE EFFECTS OF SETTING A MAXIMUM PRICE/PRICE CEILING

1. It leads to artificial shortage of goods where sellers hoard/ hide goods to create shortages on the market and then sell at higher prices.
2. It encourages trade malpractices such as smuggling and black marketing in an effort to sell goods at a higher price.

   NB: A black market is a situation where producers / sellers sell goods illegally at a price higher than the price fixed by the government.
3. It leads to under utilisation of resources because producers produce at excess capacity since they are discouraged by the low price.
4. It reduces incentives for private entrepreneurs which reduces economic growth through tampering with profit margins of entrepreneurs.
5. It increases government expenditure because of the high administrative costs incurred by the government to employ scouts and enforcement officers to ensure that goods are sold at regulated prices.
6. It leads to unemployment due to reduced levels of investment since the maximum price discourages the investors.
7. It leads to misallocation/inefficient allocation of resources. This is due to the unnecessary distortion of price mechanism in the allocation of resources

MINIMUM PRICE/PRICE FLOOR:

Minimum price is the price set by the government above the equilibrium price, below which it becomes illegal to buy the commodity.

The price is set in order to protect the producers from being exploited by the buyers.

The minimum price is also referred to as Price Floor

A graph illustrating Minimum Price/ Price floor:

A minimum price OP_2 is set above the equilibrium price OPe and it leads to an increase in quantity supplied.

REASONS FOR SETTING A MINIMUM PRICE:

1. To protect producers from being exploited by the buyers who normally offer low prices for their products.
2. To control price fluctuations of agricultural products that is affected by changing climatic conditions.
3. To encourage mass production of goods thus accelerating the rate of economic growth in an economy.
4. To offset an economic recession/ depression. Minimum price stimulates producers to produce more which helps to pull the economy out of the recession / depression.
5. To encourage creativity and innovativeness in production, the minimum price is set to stimulate research in production so as to produce more output hence increasing profits for the producers.
6. To minimum the exploitation of labour by the employers in the case of minimum wages.

MERITS/ ADVANTAGES/ POSITIVE EFFECTS OF SETTING A MINIMUM PRICE:

1. Protects producers from being exploited by consumers, since consumers are not supposed to buy commodities below the set price.
2. Enables producers to realise stable incomes. This is so because the producers sell their commodities at stable prices.
3. Leads to increased production of goods and services. This is due to the increased investment resulting the high minimum price set by the government.
4. Helps an economy out of an economic depression / recession. This is so because the minimum price stimulates production in the economy thus offsetting the economy out of an economic depression/ recession.
5. Helps to establish industrial peace. This is so because it reduces strikes by workers who complain of low wages when the government intervenes to fix a minimum wage for labour.
6. Helps to reduce income inequalities between the producers of primary/agricultural products and those who work in the industrial sector. This is so because the producers of primary products earn stable incomes due to minimum price set by the government.
7. The minimum wage increases aggregate demand leading to increased production and investment in the economy. This is so because of the increased purchasing of the people.

DEMERITS/ DISADVANTAGES/ NEGATIVE IMPLICATIONS OF SETTING A MINIMUM PRICE:

1. Leads to unmanageable surpluses because the minimum price motivates the producers and therefore produces more goods than demanded. The excess supply causes storage problems.
2. It leads reduction in social welfare due to the high cost of living. This is because the minimum price is set above the equilibrium price and therefore it becomes expensive for the buyers to purchase from the producers.
3. It leads to high administrative costs. This arises as a result of government employing scouts to monitor the set price in order to ensure that goods are sold at the fixed price. At the same time, the government is forced to buy the surplus output through price support system.
4. It increases the cost of production. This arises out of high costs of raw materials, increased cost of labour in case of minimum wage.
5. It leads to technological unemployment. This arises a result of adopting capital intensive techniques of production due the high costs of labour.

6. Minimum wages cause rural urban migration and its related evils. This is because most production units are located in urban areas, and when the minimum wage is set, it attracts people from rural areas to urban areas with hope of enjoying such high wages, but majority of such people fail to get those jobs, this leads to open urban unemployment, congestion in towns etc.
7. It leads to misallocation/inefficient allocation of resources. This is due to the unnecessary distortion of price mechanism in the allocation of resources.

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Reasons for legislating prices by the government include;

- **To** protect consumers
- **To** control monopoly power
- **To** control inflation/ ensure price stability
- **To** protect producers from being exploited
- **To** increase output
- **To** make commodities available to all groups of people
- **To** help establish industrial peace
- **To** stabilise producers' incomes
- **To** reduce income inequality
- **To** help an economy offset an economic depression

Demerits of price legislation;

- Leads to unmanageable surpluses
- Leads to unemployment due to reduced investment
- It reduces incentives for private entrepreneurs
- Leads to shortages in supply due to increased demand

- Leads to inefficient allocation of resources due to distortion of price mechanism
- It is expensive for the government to enforce because of high administrative costs.
- It encourages trade malpractices, e.g. smuggling
- It leads to increased costs of production
- It leads to reduction in social welfare due to high costs of living
- Production at excess capacity leads to underutilisation of resources.

Sub-Topic 8: PRICE FLUCTUATIONS

Price fluctuations refer to the state of upward and downward movement of prices especially of agricultural products. There is greater oscillation in prices of these goods as compared to prices of manufactured goods.

THE CAUSES OF AGRICULTURAL PRICE FLUCTUATIONS:

1. **The long gestation period**. The agricultural commodities have long gestation period and their supply cannot be increased in the short run which forces prices to **rise**. However in the long run after harvesting the supply increases which forces the prices to **fal**l due excess supply on the market.
2. **Bulkiness of agricultural products hence difficult to transport**. Most of the agricultural products are bulky and cannot easily be transported from areas of plenty to areas of scarcity. In areas of plenty prices **reduce** due to the excess supply and in areas of scarcity prices **increase** due to shortage.

3. **Natural factors which affect the level of output**. Unfavourable natural such as poor soils, prolonged drought reduce the supply of agricultural products which forces the prices to **rise.** On the other hand favourable natural factors such reliable rainfall, fertile soils leads to increase in supply of agricultural products which forces the prices to **fall** due to excess supply.

4. **Perishability and thus difficulty of storage of agricultural products**. Agricultural products are highly perishable and they cannot be stored for a long time and therefore producers are forced to sell them quickly because they cannot be stored for a long time which leads to a **fall** in their prices However after most of the produce is sold, the supply reduces which forces the prices to **rise** due to scarcity.

5. **Many producers hence planning is difficult/poor planning by the farmers**. When farmers fetch high prices in one season, they plan to produce more in the following season which increases supply and thus forces the prices to **fall**, on the other hand if the prices are low in one season farmers plan to produce less and thus force the prices to **rise** because of the shortage.

6. **Weak bargaining position of LDCs on the world market/ External determination of prices of agricultural products**. The major buyers of agricultural products from LDCs like Uganda dictate the prices of agricultural products, when they dictate low prices in the market; the local farmers are paid **reduced** prices for their produce. On the other hand when the buyers dictate the high price, the local farmers are also paid **increased** price for their products.

7. **Price inelastic demand for agricultural products**. Farmers easily change price whenever output changes for example a reduction in output leads to an increase in price and an increase in output leads to a reduction in price since the farmers expect minimal or no change in demand.

8. **Income inelastic demand for agricultural products/low income elasticity of demand for agricultural products** .There is a tendency for farmers to increase output in order to benefit from the increased incomes of the buyers, however the buyers do not demand for more which causes a surplus of agricultural output hence a **fall** price to clear the surplus. After sometime there is acute shortage on the market which forces the farmers to **increase** the price since the buyers continue demanding the same quantity.

9. **Poor surplus disposal system/ poor infrastructure**. The poor infrastructure in developing countries limits accessibility to markets. In areas of plenty the prices **fall** due to excess supply of agricultural products. On the other hand in areas of scarcity prices **rise** since it is hard to acquire those products due to poor infrastructure.

10. **Divergence between planned and actual output**. When actual output is greater than planned output, the prices of agricultural products **fall** because of flooded market and when the actual output is less than the planned output the prices **rise** because of the decrease in the output on the market.

THE COBWEB THOERREM/ MODEL:

The cobweb theorem is an economic model used to explain how small economic shocks can become amplified (strengthened) by the behaviour of producers. The amplification is, essentially the result of information failure, where producers base their current output on the average price they obtain in the market during the previous year/season.

This is to some extent, a non rational decision, given that a supply side shock between planting and harvesting can lead to an unexpectedly lower or higher price, this results in either higher output or a lower output in subsequent years/seasons and moves them into a long-term disequilibrium position.

ASSUMPTIONS OF THE COBWEB THEOREM/MODEL:

- It assumes that there is no quick adjustment of supply in the market therefore there is time lag within which supply changes.
- It assumes that there are two different parties i.e. suppliers and consumers and their plans differ.
- It assumes that the producers never learn from past mistakes and cannot anticipate price movement/price changes.
- It assumes that producers never keep old stock in a period of low prices to be sold in a period of higher prices.
- It assumes that there is no chance of hitting equilibrium with first unplanned supply.

TYPES OF COBWEB:

1. **CONVERGENT/DAMPED/STABLE COBWEB:**
   This where the supply curve is steeper(more inelastic) than the demand curve implying that a small price fluctuation leads to attainment of equilibrium, in other wards price fluctuation can be seen to steadily approach the equilibrium point.

   An illustration of a convergent/damped/stable cobweb:

2. **DIVERGENT/EXPLOSIVE/UNSTABLE COBWEB**

This is where price fluctuations tend to deviate far away from equilibrium over time. Demand is relatively more inelastic than supply.

An illustration of a divergent/explosive/unstable cobweb.

3. REGULAR/PERFECT COBWEB:

This is when the slopes of both demand and supply curves are the same. In other wards the slope of supply and demand curves are identical. The price elasticity of demand and price elasticity of supply are equal. Price fluctuations will neither converge nor diverge.

An illustration of a regular/ perfect cobweb:

THE EFFECTS OF AGRICULTURAL PRICES FLUCTUATIONS:

1. **It leads to fluctuation/ unstable export earnings**. In some seasons when export prices increase, earnings from exports increase and in seasons when export prices decrease, export earnings also fall.

2. **It makes projected planning based on export earnings from agricultural commodities difficult.** This is because it is hard determine how much revenue the country will get from her exports because of the rising and falling prices of agricultural products.

3. **It leads to fluctuation/instabilities in the balance of payment position**. Rising agricultural export prices leads to increased foreign exchange earnings which results into improvements in the balance of payment position On the other hand falling prices of agricultural exports leads to a fall in foreign exchange earnings which results into the worsening balance of payment position.

4. **It leads to fluctuation/unstable incomes of the farmers/producers**. Rising prices of agricultural products leads an increase in the farmer's income .On the other hand falling prices of agricultural products leads a fall in the farmer's incomes.

5. **Leads to fluctuation/unstable terms of trade**. Rising prices of agricultural products on the international market leads to improvement the terms of trade of the country. On the other hand falling prices of agricultural products lead to worsening terms of trade.

6. It **worsens the problem of income inequalities/disparity** .Falling prices of agricultural products leads to a fall in the incomes of the farmers compared to the incomes of those in the industrial sector which are relatively stable, This worsen income inequality in the country.

7. **Investment in agriculture becomes uncertain and this causes speculation and irrational use of land**. Since farmers' earnings are unstable they lose interest in farming and some abandon agricultural production and this reduces agricultural output.

8. **It leads to fluctuation in employment levels**. Rising prices of agricultural products leads to increased investment in the agricultural sector hence increased employment opportunities. On the other hand falling prices of agricultural products discourages investment in the sector hence reduced employment opportunities.

9. **It leads to rural urban migration with its associated evils/ negative consequences**. This happens when farmers in rural areas become frustrated in agriculture and decides to move to urban areas with hope of getting better jobs, however majority of such people fail to get

those jobs, resulting into open urban unemployment, development of slums, prostitution, robbery etc.

10. **Leads to fluctuation/unstable government revenue**. Rising prices of agricultural products leads increased earnings of the farmers which widens the tax base. On the other hand falling prices of agricultural products leads to reduced earnings of the farmers, which leads reduced tax base and thus reduced government revenue.

11. **Leads to fluctuation/unstable exchange rates**. Rising export prices leads to increased foreign exchange inflow which results to a fall in the exchange rate thus a rise in the value of the local currency. On the other hand falling export prices leads to reduction in foreign exchange inflow which leads to a rise in the exchange rate hence a fall in the value of the local currency.

STEPS/WAYS TO STABILISE PRICES OF AGRICULTURAL PRODUTS:

- **B y use/ Operation of buffer stock**. This is where the surplus output is bought by the marketing boards during bumper/rich harvest and sold during periods of scarcity. In this case the government builds stock during the time of plenty by buying from the farmer the surplus output to avoid price falling so low and sells or releases the stock to the market in time of shortage or scarcity to avoid prices rising so high.

- **Use of stabilisation fund policy**: This is the deliberate attempt by the government of paying producers less than the market price when prices and incomes are high, putting the realised difference into a fund and later using that fund to pay the producers high price than the market price when prices and incomes are low to avoid fluctuations in prices and incomes as would be dictated by market forces

- **Undertake agricultural diversification:** the farmers should be encouraged to undertake several economic activities within the agricultural sector in order to avoid depending on a single activity whose price may fall or rise so as to stabilise their incomes.

- **Improve on the infrastructure/improve the transport facilities/ the disposal system**. This will enable the easy transportation of agricultural products from areas of plenty to areas where prices are low to areas of scarcity where prices are high in order to keep prices stable in all the areas.

- **Promote industrialisation within the agricultural sector**. The established industries buy the excess supply of agricultural products to use them as raw materials which would have caused a fall in their prices, thus helping to stabilise the prices of agricultural products. In addition agro-processing helps to add value to them and therefore enabling agricultural exports to fetch more earnings.

- **Strengthen/Join international commodity agreements.** This will help to improve the bargaining power of the exporting countries of a given commodity, through such agreements the exporting countries are in position to bargain for high and fair prices for their commodities.
- **Modernise agriculture in order to reduce dependence on nature:** This is done through the use of irrigation farming, commercialisation/mechanisation of agriculture in order to ensure that agricultural production takes place throughout the year to reduce price fluctuations when the agricultural output rises or falls.
- **Undertake market expansion through diversification**. This is done through expanding the existing markets and finding new ones for the agricultural products. This helps to overcome flooding of the market. When the producers supply to different markets, the consumers compete for the products and this helps to stabilise the prices of the agricultural products.

- **The government may set minimum price**. This helps to protect producers/ farmers against exploitation by the buyers because the agricultural commodities are sold at the price fixed by the government controlling price fluctuations.

- **Adopt a strict quota system.** This is done by regulating the amount to be supplied on the international market of the agricultural products which may help to control excess supply and subsequent price fluctuations.

- **Use contract farming/ Future market arrangement;** the farmers should be encouraged to sign contracts with the consumers before production takes place e.g. a poultry farmer can sign a contract with a hotel manager to supply chicken and eggs at an agreed price before production takes place.

- **Encourage producer cooperatives to regulate supply**. Cooperative helps to bring producers of a given commodity together. This enables them to regulate the supply of their product, look for the market jointly and all these help to stabilise prices.

- **Improve on the Storage system**. This helps to stabilise supply of agricultural products on the market, through storing the excess supply during bumper harvest to avoid over flooding the market thus stabilising prices.

- **Encourage proper planning of production**: This is done through sensitising the farmers about the importance of regulating supply so as to avoid over flooding the market, thus help to stabilise prices.

THE INTERNATIONAL COMMODITY AGREEMENTS:

The international commodity agreements are arrangements between the producing and

Consuming countries to stabilise markets and raise the average prices. Such markets include markets for coffee, Tea, Sugar, Cocoa, Cotton etc.

Examples of international commodity agreements include;

- Internal coffee organisation (I.C.O)
- International cocoa organisation (I.C.C.O)
- International Cotton Advisory organisation(I.C.A.O)
- International Sugar Origination (I.S.O)
- International Tea organisation (I.T.O)

OBJECTIVES OF INTERNATIONAL COMMODITY AGREEMENTS:

- To facilitate inter-governmental consultations and coordination regarding commodity prices and priorities
- To encourage sustainability in the production and supply of a particular commodity by initiating development projects aimed at adding value to the commodity.
- To improve the marketing by increasing the consumption of the commodity through innovative market development activities.
- To improve the quality of the commodity by working closely with the producing and consuming countries.
- To develop innovative and capacity building among the producing country
- To ensure transparency in the commodity market through providing comprehensive information by means of statistics and market studies.

THE ROLE OF INTERNATIONAL COMMODITY AGREEMENTS:

- Promoting the consumption and production of the commodity on the world market.
- Stabilising the price the commodity on the world market.
- Ensuring production of better quality products by the producing/exporting countries.
- Improving the marketing of the product through innovative market development activities e.g. advertising in the world business journals, on different business websites.
- Facilitating inter-governmental consultations and coordination regarding commodity policies and priorities. .