CONCEPT OF MARKET PLACE

What is market?

- A market is a collection of individual decision making units, some of which desire to buy (demand) and some of which desire to sell (supply) a particular good or service.
- In analyzing the structure and functioning of markets we shall deal with a special kind of theoretical market model.
- It is a market that is both perfect and competitive.

Types of Markets

- **Perfect market**
- Assumption is that both buyers and sellers have competitive knowledge of market conditions.
- Any change in market conditions will be known and acted upon.
- **Competitive market**
- Characterized by many participants in which individuals have no capacity to control or influence market conditions.
- All participants are price takers.

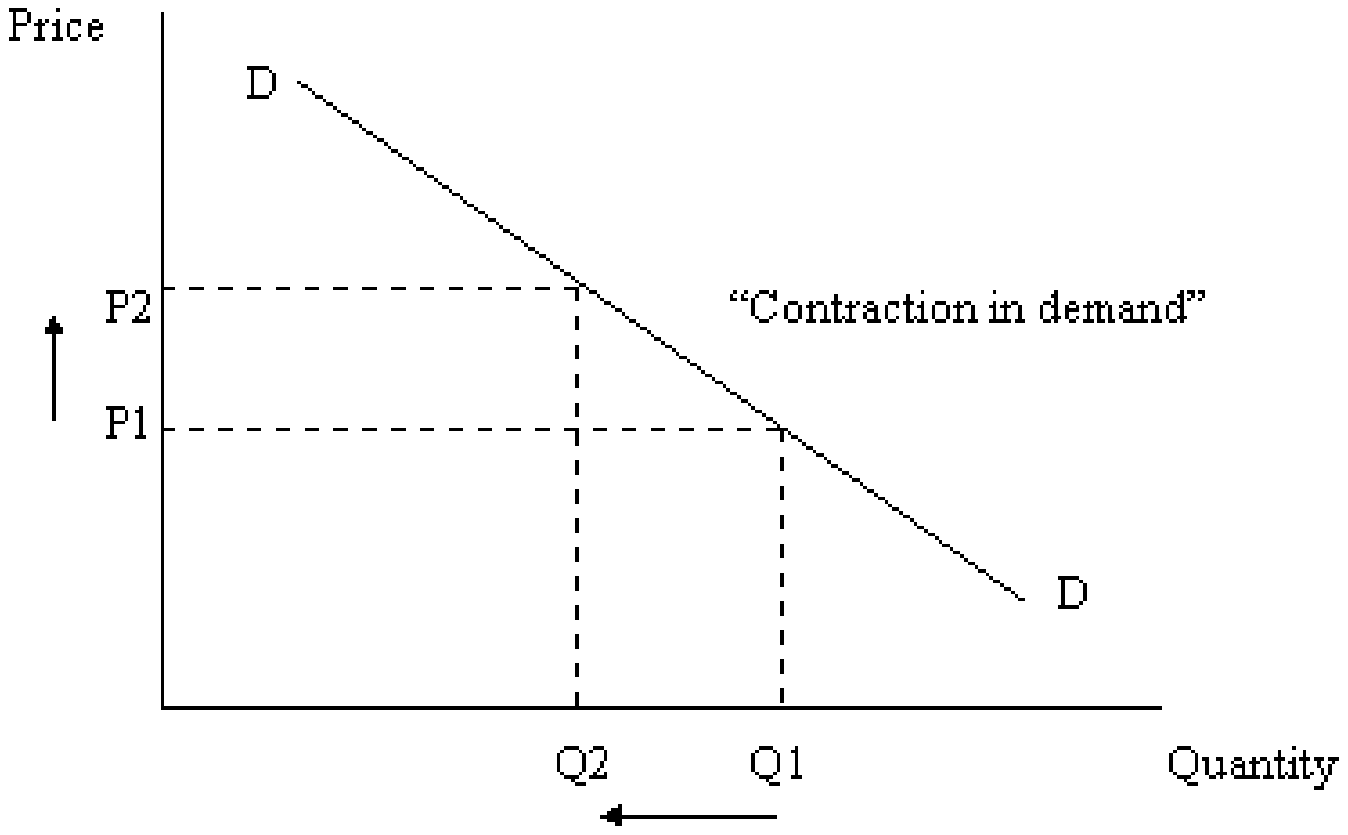
Demand function

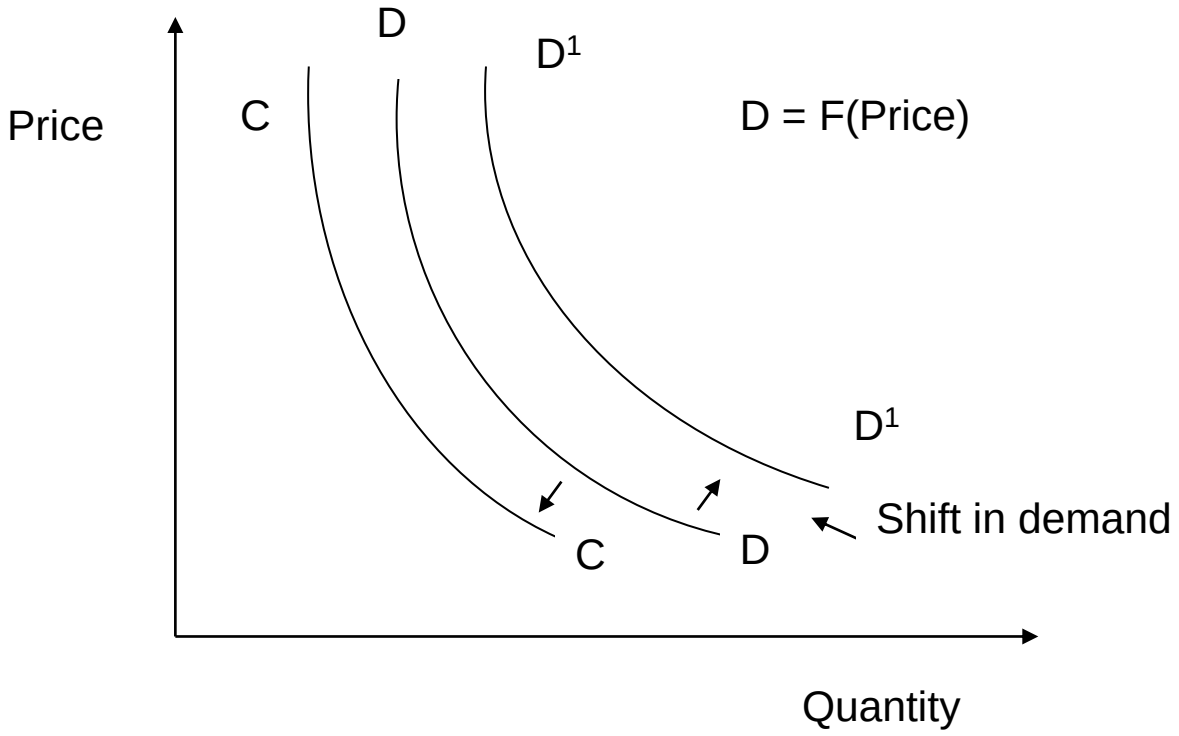
- **Desire** refers to people's willingness to own a good.
- **Demand** is the amount of a good that consumers are willing and able to buy at a given price.
- **Demand is a function of;**
- Price
- Price of complements (goods used at the same time)
- Price of substitutes (alternative goods)

Cont …

- Disposable income
- Size of population
- Subjective factors (such as taste, fashion, culture etc)) i.e. whether people like the good or not.
- Income is the major factor, which affects the demand.

Demand Function



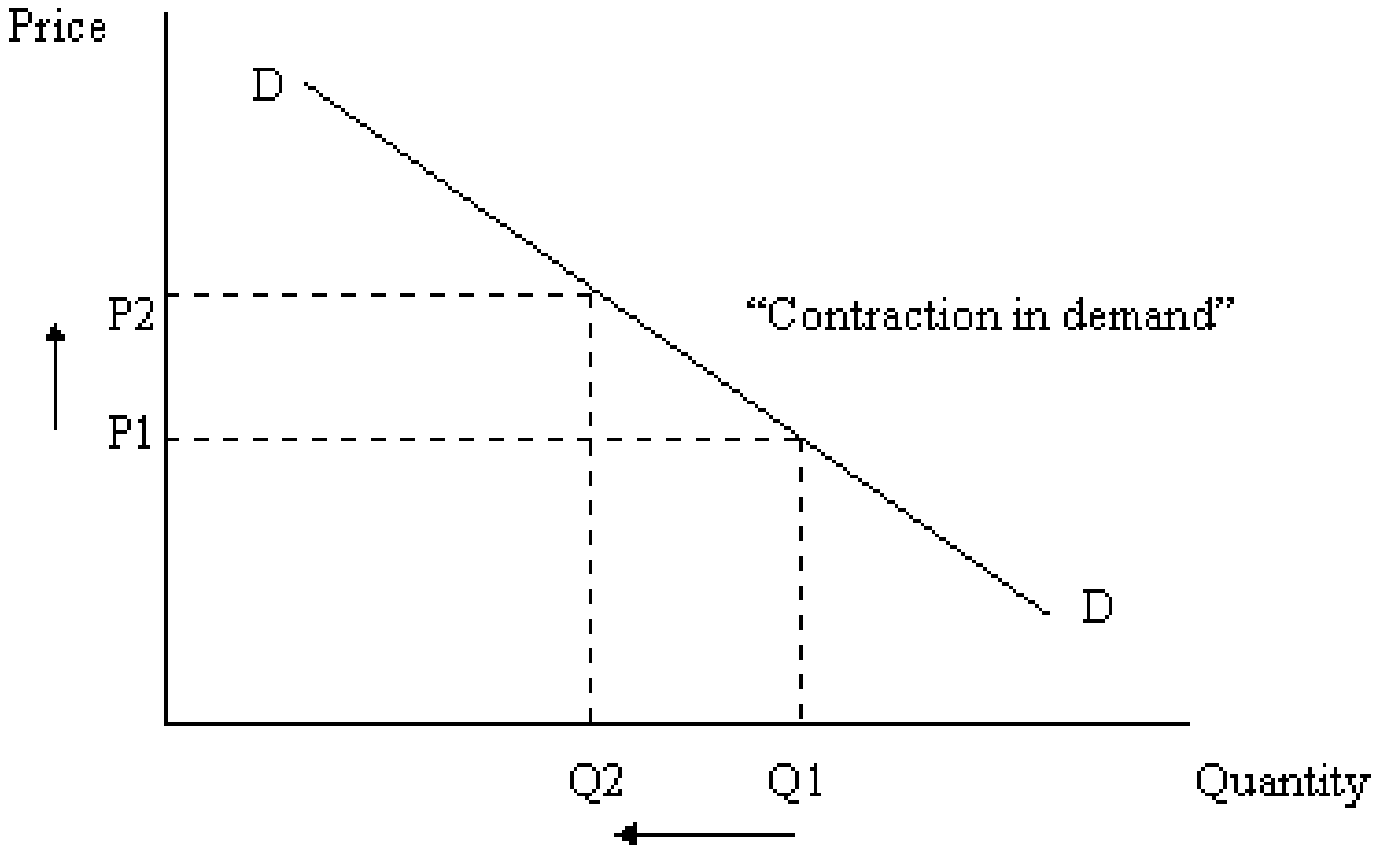

D
D1
C
D = F(Price)
Price
D1
Shift in demand
C
D
Quantity

Cont …

- Shift in demand from DD to D1D1 could be due to;
- disposable income increase;
- size of population resulting this shift.
- Demand could also shift to CC due to reduction in disposable income.
- In mineral industry consumption of the mineral affects the demand of the commodity.

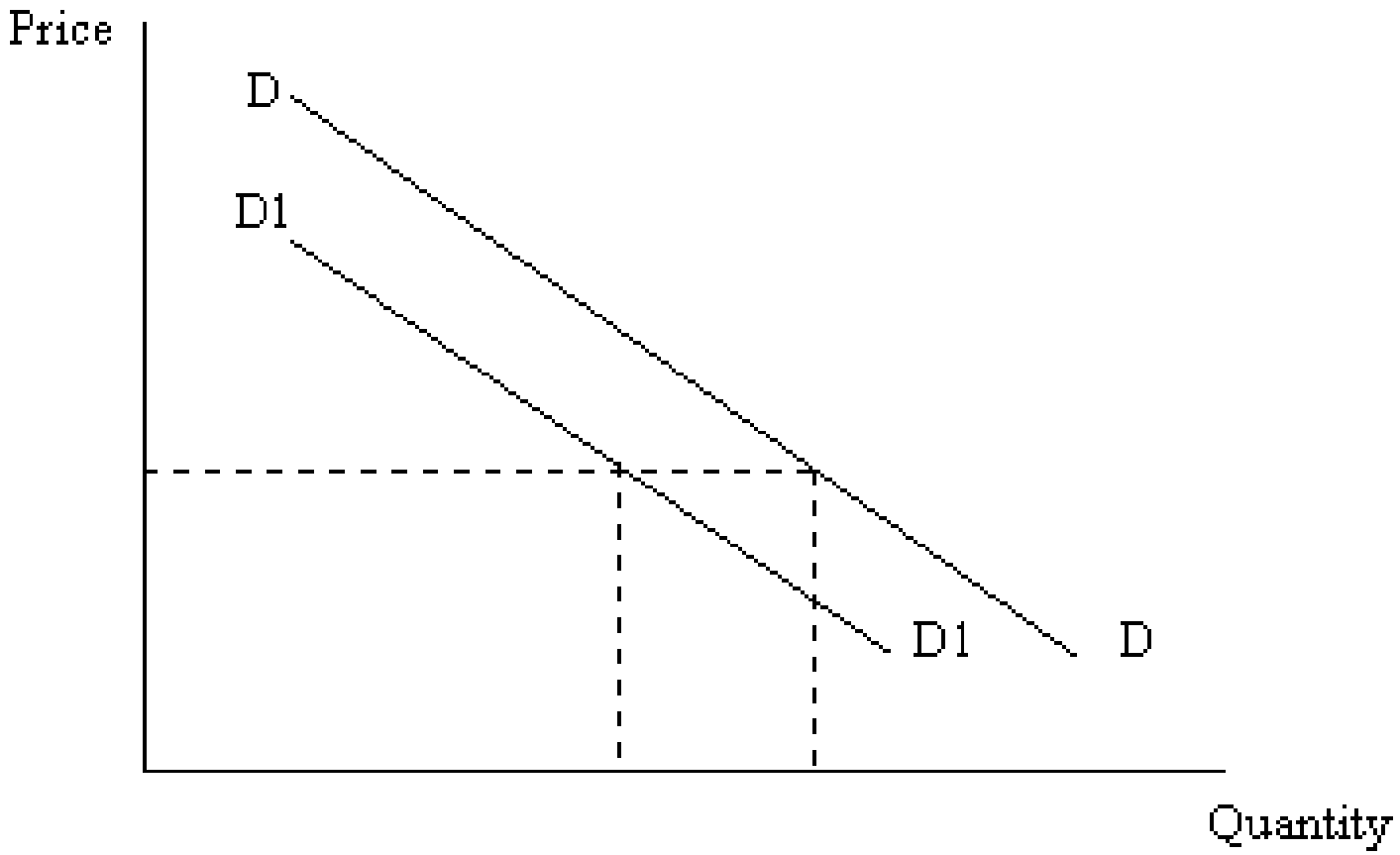
Movements along and shifts in demand curves

- A change in price *never* shifts the demand curve for that good.
- In the figure below an increase in price results in a *movement* up the demand curve.
- The fall in the quantity demanded from Q1 to Q2 is sometimes called a *contraction* in demand.


Price
D
P2
"Contraction in demand"
P1
D
Q2
Q1
Quantity

Cont …

- **A demand curve *shifts* only if there is;**
- a change in income
- in taste
- in the demand for substitutes
- complements.
- In the diagram below a decrease in demand has shifted the demand curve to the left.
- The new demand curve is D1 D1.


Price
D
D1
D1
D
Quantity

Cont …

- The relationship between price and the amount of a product people want to buy is what economists call the **demand curve.**
- This relationship is inverse or indirect because as price gets higher, people want less of a particular product.
- This inverse relationship is almost always found in studies of particular products, and its very widespread occurrence has given it a special name: the **law of demand.**

Cont …

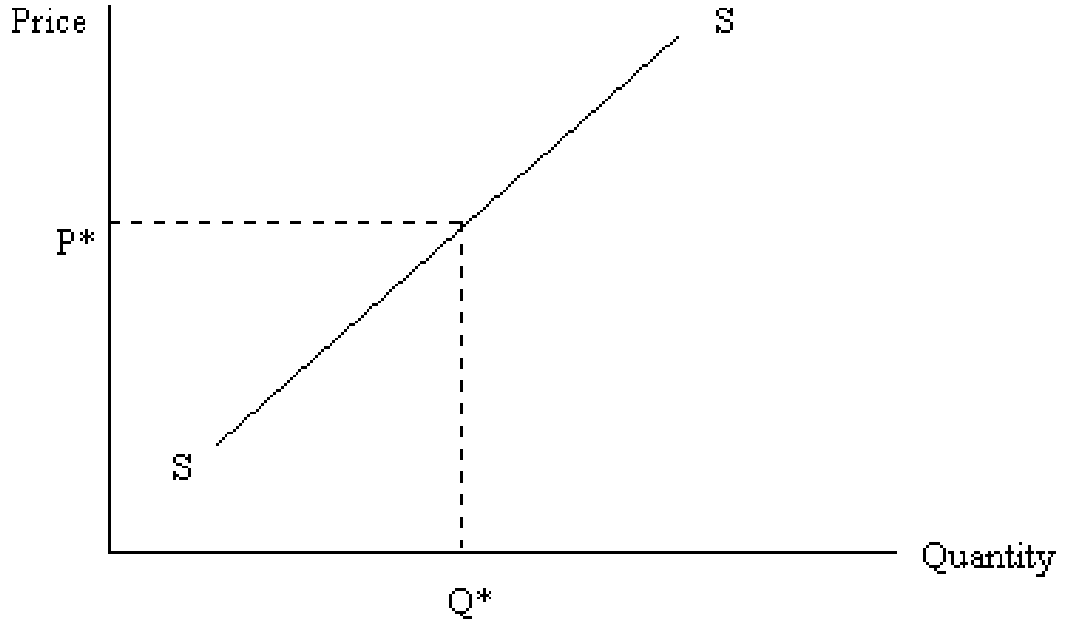
- The word **"law"** in this case does not refer to a bill that the government has passed but to an observed regularity.
- There are various ways to express the relationship between price and the quantity that people will buy.
- Mathematically, one can say that quantity demanded is a function of price, with other factors held constant.

Supply Curve

- **Supply** is the amount of a good producers are willing and able to sell at a given price.
- **Supply depends on:**
- the price of the good;
- the cost of making the good;
- the supply of alternative goods the producer could make with the same resources *(competitive supply);*
- unexpected events that affect supply.

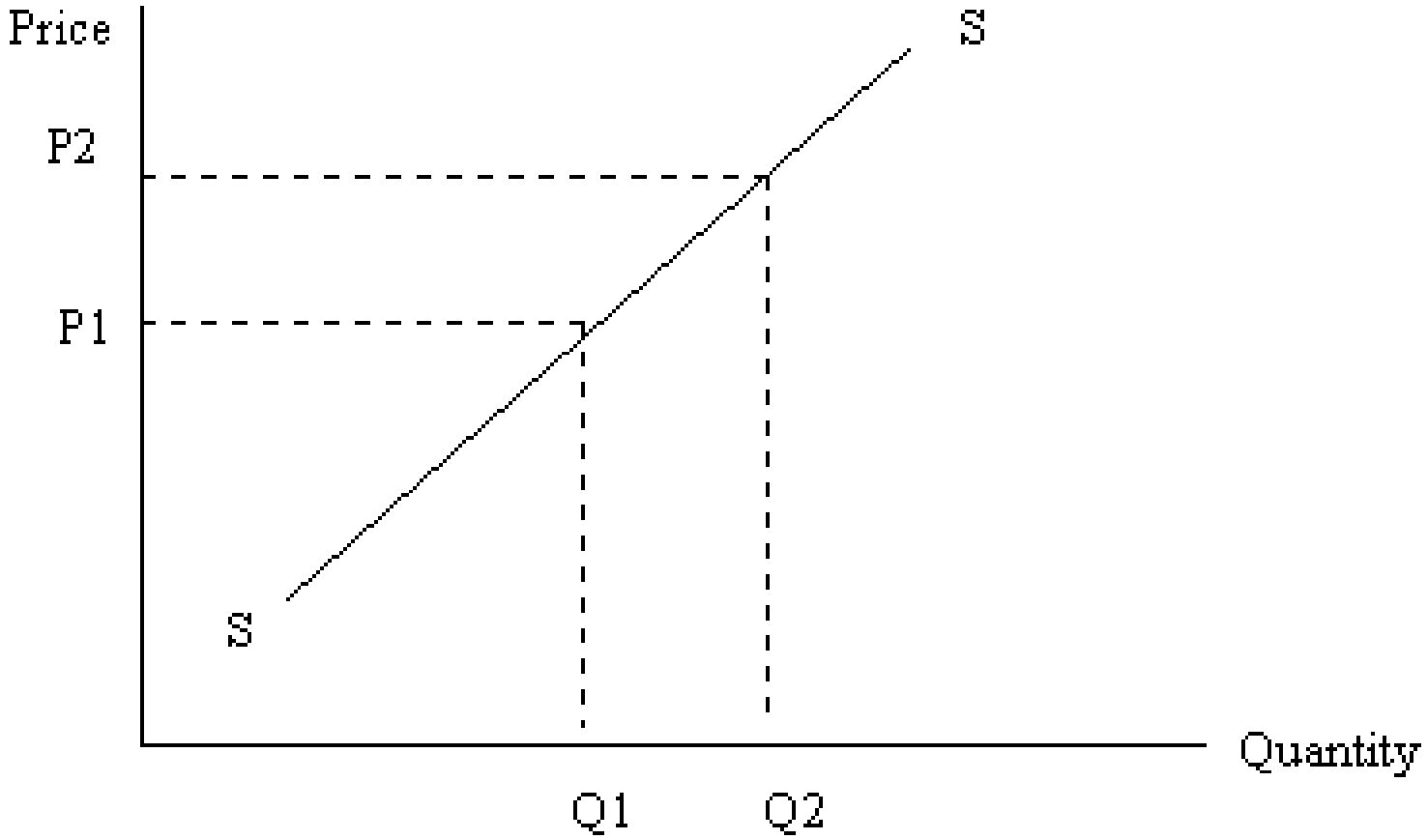
Cont …

- The *supply curve* labelled SS in the figure below shows the amount of a good one or more producers are prepared to sell at different prices.



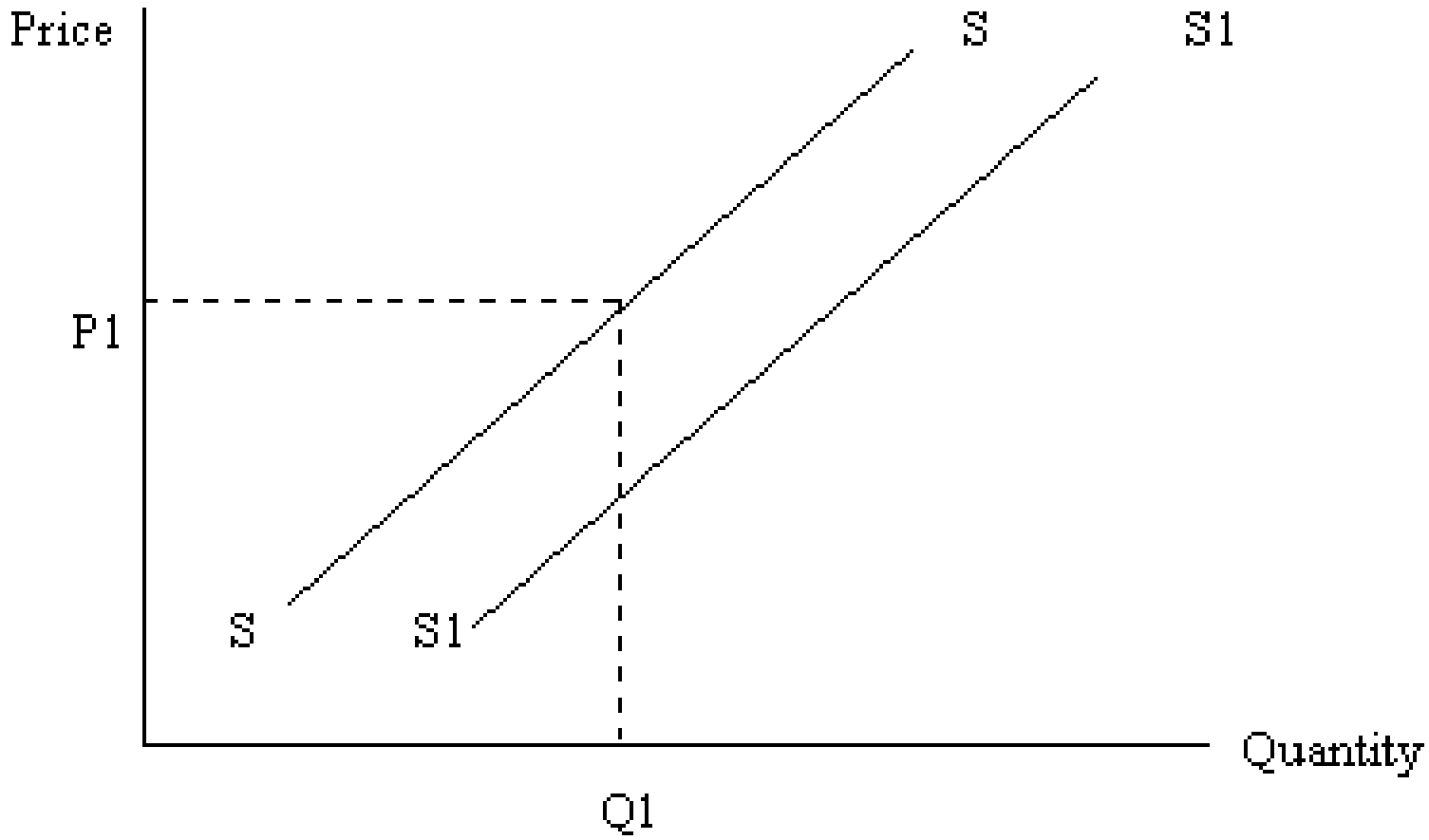
Movements Along and Shifts in Supply Curves

- A change in price *never* shifts the supply curve for that good.
- In the diagram below an increase in price results in a *movement* up the supply curve.
- The increase in quantity supplied from Q1 to Q2 is sometimes called an *expansion in supply*.

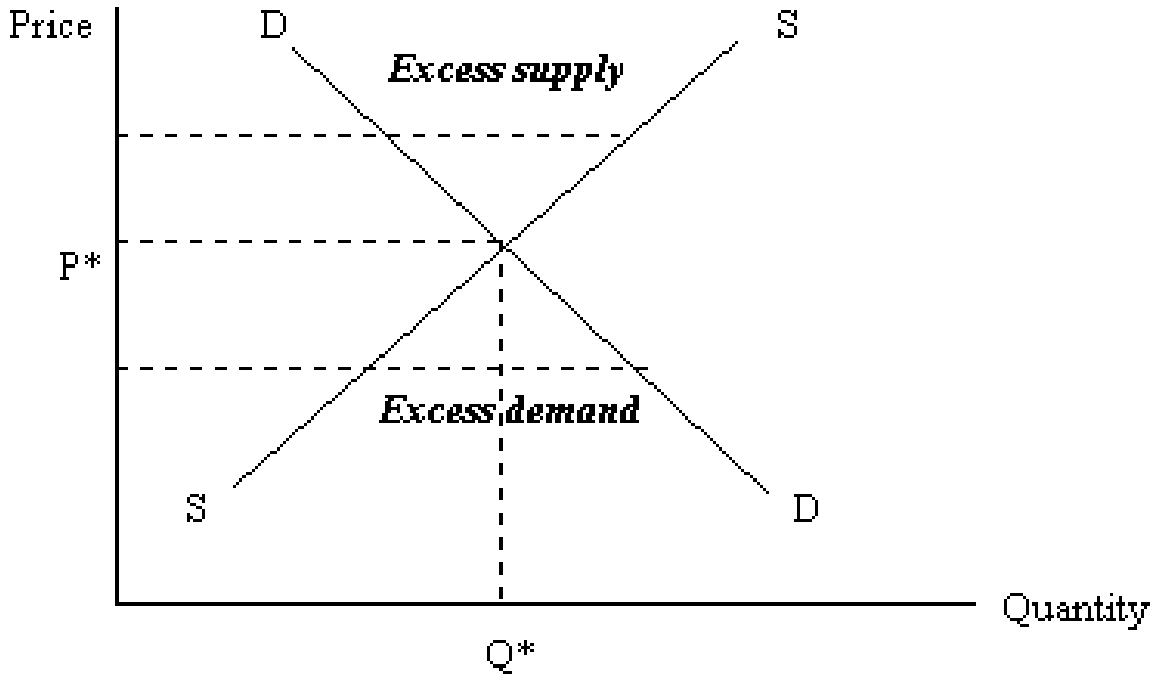

Price
S
P2
P1
S
Quantity
Q1
Q2

Cont …

- **A supply curve shifts only if there is:**
- a change in costs;
- a change in the number of goods in competitive; or
- some unforeseen event which affects production.


Price
S
S1
P1
S
S1
Quantity
Q1

Market Price



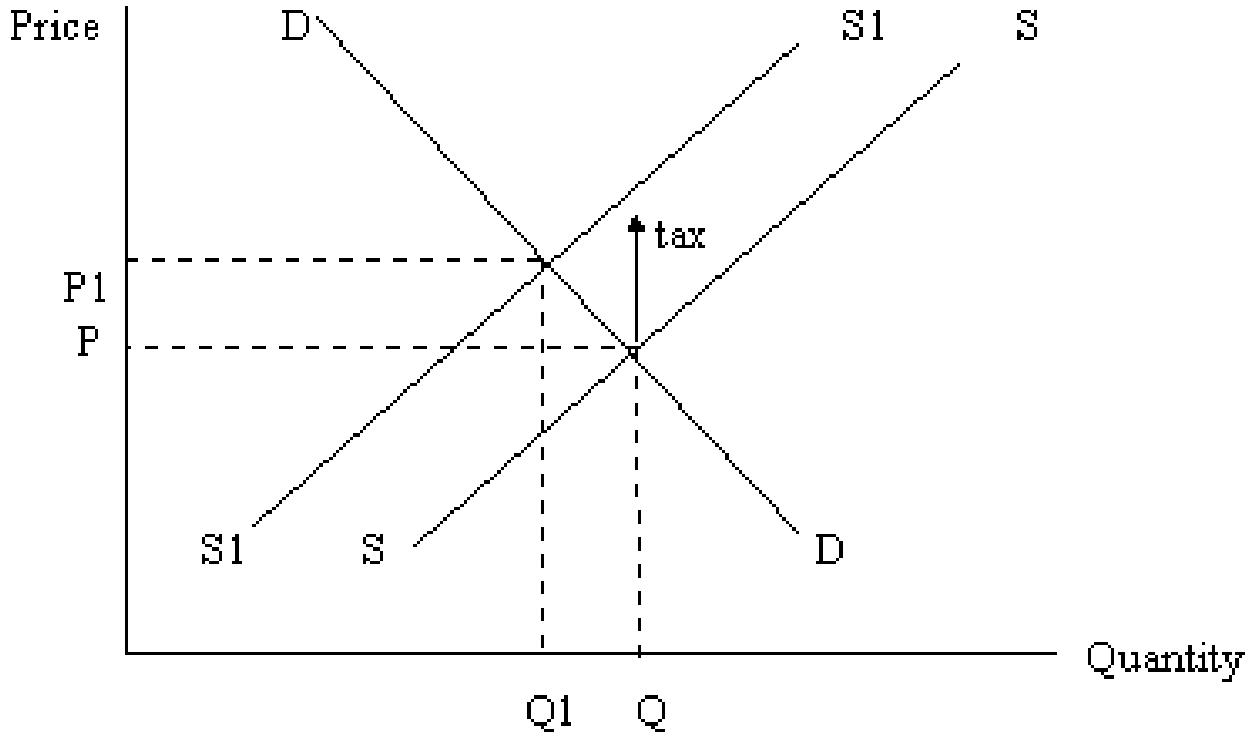
- At prices above the equilibrium (P*) there is *excess supply* while at prices below the equilibrium (P*) there is *excess demand*.

Cont …

- The effect of excess supply is to force the price down;
- Excess demand creates shortages and forces the price up.
- The price where the amount consumers want to buy equals the amount producers are prepared to sell is the *equilibrium market price.*

Indirect Taxes and Subsidies

- In the figure below an indirect tax has been added to SS.



Cont …

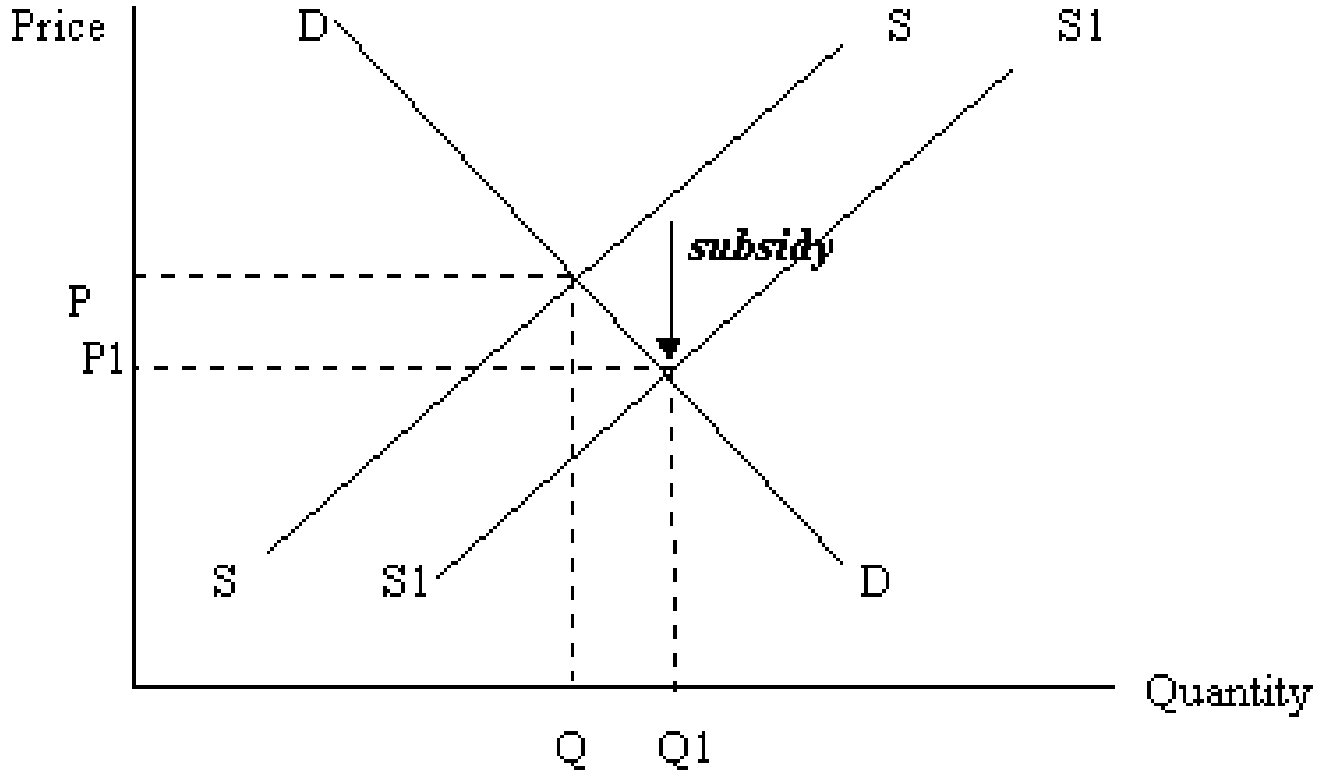
- This has the effect of shifting the supply curve up vertically by the amount of the tax.

- Note that in the diagram below price does not increase by the full amount of the tax.

- This suggests that part of the tax is paid by the firm.

Cont …

- In this figure below a subsidy has been given to the firm.
- This has the effect of making firms willing to supply more at each price and so shifts the supply curve downwards.



Cont …

- The shift is equivalent to the value of the subsidy.
- Note that price falls by less than the full amount of the subsidy.
- This suggests that the firm keeps part of the subsidy.

Elasticity of Demand

- Measures responsiveness or sensitivity of the **quantity demanded** of a product to a **change in some demand determinants**.
- Two words are important here.
- The word **"measure"** means that elasticity results are reported as numbers or elasticity coefficients.
- The word **"responsiveness"** means that there is a stimulus-reaction involved.

Cont …

- Some change or stimulus causes people to react by changing their behavior, and elasticity measures the extent to which people react.

  - € = % change in quantity demanded ÷ % change in any demand determinant

- Demand determinants include Price, Income etc.

Price Elasticity of Demand (PEoD)

- The PEoD measures the rate of response or sensitivity of the quantity demanded due to a price change.

  – PEoD = (% Change in Quantity Demanded) ÷ (% Change in Price)

Cont …

- To calculate the price elasticity, we need to know what the percentage change in quantity demand is;
- What the percentage change in price is.
- It's best to calculate these one at a time.

Calculating the Percentage Change in Quantity Demanded

- The formula used to calculate the percentage change in quantity demanded is:
- [QDemand(NEW) - QDemand(OLD)] ÷ QDemand(OLD)

Calculating the Percentage Change in Price

- The formula used to calculate the percentage change in price is:

- [Price(NEW) - Price(OLD)] ÷ Price (OLD)

Final Step of Calculating the PEoD

- We go back to our formula of:

- PEoD = (% Change in Quantity Demanded) ÷ (% Change in Price)

Interpreting the Price Elasticity of Demand

- A good economist is not just interested in calculating numbers.
- The price elasticity of demand is used to see how sensitive the demand for a good is to a price change.
- The higher the price elasticity, the more sensitive consumers are to price changes.

Cont …

- A very high price elasticity suggests that when the price of a good goes up, consumers will buy less of it.

- When the price of that good goes down, consumers will buy a great deal more.

Cont …

- A very low price elasticity implies just the opposite, that changes in price have little influence on demand.

- If PEoD > 1 then Demand is Price Elastic (Demand is sensitive to price changes)

- If PEoD = 1 then Demand is Unit Elastic

- If PEoD < 1 then Demand is Price Inelastic (Demand is not sensitive to price changes)

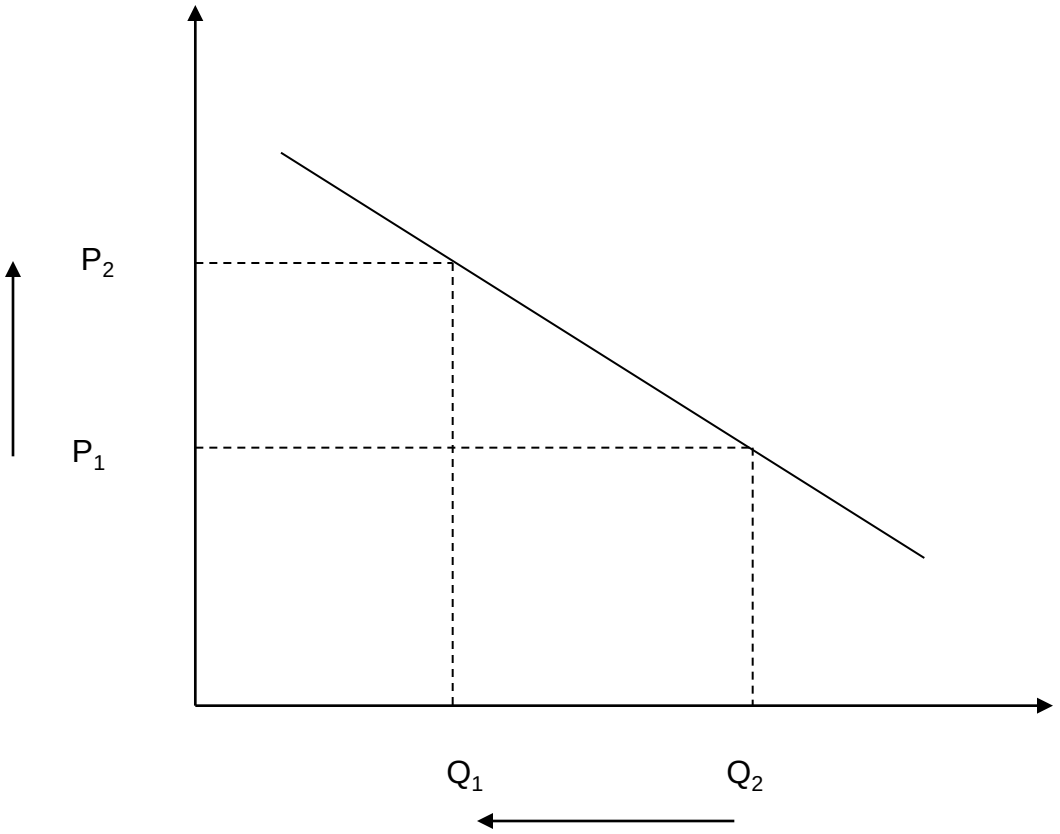
Example

- P1 = $9 Q1 = 150 Units
- P2 = $10 Q2 = 110 Units

- To calculate the price elasticity, we need to know what the percentage change in quantity demand is;

- What the percentage change in price is.

- It's best to calculate these one at a time.


P2
P1
Q1
Q2

Calculating the Percentage Change in Quantity Demanded

- The formula used to calculate the percentage change in quantity demanded is:
- **[QDemand(NEW) - QDemand(OLD)] / QDemand(OLD)**
- By filling in the values we wrote down, we get:
- **[110 - 150] / 150 = (-40/150) = -0.2667**

Cont …

- We note that % Change in Quantity Demanded = - 0.2667
- We leave this in decimal terms.
- In percentage terms this would be -26.67%.
- Now we need to calculate the percentage change in price.

Calculating the Percentage Change in Price

- The formula used to calculate the percentage change in price is:
- [Price (NEW) – Price (OLD)] / Price (OLD)
- By filling in the values we wrote down, we get:
- **[10 - 9] / 9 = (1/9) = 0.1111**
- We have both the percentage change in quantity demand and the percentage change in price;
- So we can calculate the price elasticity of demand.

Final Step of Calculating the Price Elasticity of Demand

- We go back to our formula of:

- **PEoD = (% Change in Quantity Demanded) ÷ (% Change in Price)**

- We can now fill in the two percentages in this equation using the figures we calculated earlier.

- **PEoD = (-0.2667)/(0.1111) = -2.4005**

Cont …

- When we analyze *price* elasticities we're concerned with their **absolute value.**

- So we ignore the negative value.

- We conclude that the price elasticity of demand when the price increases from $9 to $10 is 2.4005.

Factors that determine the value of price elasticity of demand

- **Number of close substitutes within the market**
  - The more (and closer) substitutes available in the market the more elastic demand will be in response to a change in price.
  - In this case, the substitution effect will be quite strong.
- **Luxuries and necessities**
  - Necessities tend to have a more inelastic demand curve, whereas luxury goods and services tend to be more elastic.

Cont …

- **Percentage of income spent on a good**
  - It may be the case that the smaller the proportion of income spent taken up with purchasing the good or service the more inelastic demand will be.
- **Habit forming goods**
  - Goods such as cigarettes and drugs tend to be inelastic in demand.
  - Preferences are such that habitual consumers of certain products become de-sensitised to price changes.

Cont …

- **Time period under consideration**
  - Demand tends to be more elastic in the long run rather than in the short run.

How Markets function

How market functions

- Economists assume that there are a number of different buyers and sellers in the market place.
- This means that we have competition in the market;
- This allows price to change in response to changes in supply and demand.
- For almost every product there are substitutes, so if one product becomes too expensive, a buyer can choose a cheaper substitute instead.
- In a market with many buyers and sellers, both the consumer and the supplier have equal ability to influence price.

Cont …

- In some industries, there are no substitutes and there is no competition.
- In a market that has only one or few suppliers of a good or service, the producer(s) can control price;
- It means that a consumer does not have choice and has very little influence over the price of goods.

Cont …

- Of critical importance in examining the market for a product is the structure of competition.
- i.e. whether there are many or few sellers in the industry.
- Where there is monopoly, the government controls the industry e.g. electricity companies.
- Second key element in market behaviour relates to whether the products of sellers are identical or differential.

Differentiated products

- Where products of firms are distinctive and unique, buyers may have a good reasons to prefer the product of one firm to that of another.
- The ultimate tests of differentiation depend on buyer's perception.
- Artificial differences brought about by brand names, trades marks, packaging and advertising can also be important to buyers.
- A firm’s product extends beyond the physical and functional characteristics of the item itself
- This means although a similar item may be on sale, attitude of sellers (courtesy), may affect sales, convenience of location, credit terms etc.

Cont …

- As can be expected, competition proceeds along different lines depending on “many” or “few” sellers and whether their products are differentiated or identical.
- Based on this perspective several forms of market structures and types of competition stand out;

Cont …

- **Perfect competition** - many sellers of standardized products e.g. bread, beef, sugar, copper and steel.
- **Monopoly** – single seller of a product for which there is no close substitute.
- **Monopolistic Competition** – many sellers of differentiated products.
- **Oligopoly** – few sellers of either standardized or differentiated products.

Perfect Competition

- A perfect competitive market environment is distinguished by 4 main features.
- **Identical products** - indistinguishable and therefore, homogeneous.
  - No buyer is willing to pay one firm a higher price than that charge by rival firms.
  - Buyers are totally indifferent as the firm from which they purchase as long as price is the same.
  - In fact differences in price constitute the only reason a buyer might prefer one seller to any other.
- **No buyer** or seller has power to affect the going market price of the product.
- **Resource inputs** of all kinds are completely mobile.

Cont …

- There is a state of **perfect knowledge**.
  - Decisions are made under conditions of certainty, firms know exactly their revenues and cost functions, prices of all resource inputs and the various technologies, which can be used to produce their products.
  - Consumers are aware of prices charged by all firms.
  - Resource owners are aware of the prices firms are paying for resource inputs and all relevant opportunity cost.

Cont …

- These conditions are so stringent that no market in real world ever has or can meet them.
- The chief feature is the existence of powerful market forces which tend to drive price to a level where each firms earns no more than a normal profit and return on investments.
- Whenever demand and supply conditions allow firms in the industry to earn more than a normal profit, new firms are induced to enter.

Cont …

- These results in price being driven down, thereby foreclosing the opportunity to earn more than normal return.
- Should supply and demand conditions result in a price that inflicts losses upon firms in the industry, then some firms will quit and remaining ones will seek to adjust their scale of operations in the direction of minimum long run average cost.

Cont …

- As a consequence, market forces move firms towards a no-profit / no loss situation;

- This where firms earn only an accounting profit sufficient to induce them to continue in business in industry.

Cont …

- Since every firm is subjected to the discipline of the market, it must remain as efficient as the average firm in the industry
- Otherwise the losses that accompany inefficiency and high unit costs will force it to close down.
- Perfectly competitive firms are price takers and quantity adjusters.

Cont …

- They have absolutely zero market powers.
- Its only discretionary judgments is how much to produce at the prevailing market price.
- But even here, as long-run equilibrium adjustment occurs, the discretion over output erodes.

Cont …

- Both output of the specific firms and the capacity of the industry are responsive to changes in demand.
- If market demand increases in relation to supply the market price goes up;
- Expansion are induced and over time additional output capacity is created.
- Conversely, if market demand falls or industry over expands, their market price falls, expansion is discouraged, and firm may even close down.

Cont …

- Perfectly competitive model is a unique form of competition.
- The firm's competitive struggle is one responding to changing market conditions and trying to stay in a cost efficiently position to earn at a normal profit at the going market price.
- Only the fittest survive the struggle in the long run.

Cont …

- With identical products, the competition focuses on price but most particularly on the ability of firm to compete at lower market prices.
- In perfectly competitive market, prices are very flexible downward.
- Prices fall whenever the quantity offered for sale exceeds the quantity purchased
- Prices also falls whenever efficiency gains, technological improvements or lower output princes (all of which means lower unit costs) allow firms to earn attractive profits selling at lower market prices.

Cont …

- Perfect competition provides consumers maximum protection from exploitation by business firms.
- Neither seller nor buyer is able to control or rig the market to his own advantage.
- There can be no question of abuse of power and thus no need for government intervention or regulation.
- In short, perfect competition is the epitome (essence) of what is meant by a free market.

Monopoly

- A monopoly is a market structure in which there is only one producer/seller for a product.
- In other words, the single business *is* the industry.
- Entry into such a market is restricted due to high costs or other impediments, which may be economic, social or political.
- e.g. a government can create a monopoly over an industry that it wants to control, such as electricity.

Cont …

- Another reason for the barriers against entry into a monopolistic industry is that oftentimes, one entity has the exclusive rights to a natural resource.
- For example, in Saudi Arabia the government has sole control over the oil industry.
- A monopoly may also form when a company has a copyright or patent that prevents others from entering the market.

Cont …

- In most real-world markets, products are not homogenous.
- Product of each firm in some way is differentiated from products of other firms.
- Companies spend considerable time and effort engineering special features into their products making unique features through;
- product design and features
- Adverting
- Packaging
- brand names
- terms of credit, service, etc

Monopolistic Competition

- Monopolistic competition is a market environment comprising of many firms selling products that are very close (but not perfect) substitutes for each other
- **Distinctive features**
- Three factors combined to set monopolistic competition apart:
- product differentiation
- presence of large numbers of sellers
- non price competition

Cont …

- Introducing the element of product differentiation in the market place courses some consumers to prefer the products of particular firms.
- Each firm in producing its own unique version of the product obtains a kind of limited monopoly.
- Even so, the firm still faces competition from rival firms, hence the label monopolistic competition.

Cont …

- Ultimately, product differentiation has the effect of giving a monopolistically competitive firm limited influence over the price it charges firm in a very restricted sense is a price maker.
- It drives its power from the fact that some consumers are willing to pay a high price to satisfy their preferences for the product of specific firms.

Cont …

- Price differential which a firm is able to charge is a function of the firm's success in differentiating its products in the minds of consumers;
- This leads to creating brand and company loyalties (e.g. Coca-Cola label on new product will entice you to buy the product)

Cont …

- A firm operating under Monopolistic Competition can simultaneously undertake 3 strategies for influencing its sales volumes:-
- It can change the price it charges – the strategy of price competition.
- Modify the nature of its product - the strategy of product competition
- Revive its sales promotion tactics – the strategy of promotional competition e.g. when there is a big event e.g. soccer, some companies will tend to advertise through jerseys (e.g. JVC, Sony).

Oligopoly

- In an oligopoly, there are only a few firms that make up an industry.
- This select group of firms has control over the price;
- An oligopoly has high barriers to entry.
- The products that the oligopolistic firms produce are often nearly identical;
- Therefore, the companies, which are competing for market share, are interdependent as a result of market forces.

Cont …

- Distinctive feature of oligopoly is that a few highly visible and well-known firms supply the shares of total output.
- Decisions and actions of each firm have significant repercussions on rival firm.
- If one firm announces a price change, its competitors take quick notice.
- As a result competition becomes personalized with each firm recognizing that its own course of action depends on the strategies of rivals firms.
- Interdependence among diagnosis extends to all facets for competition e.g.

Cont …

- Price
- Output
- Promotional strategies
- Innovations
- Customer service
- Acquisitions and mergers

Cont …

- Greatest uncertainty is how one's rivals will react.
- Entry into oligopoly industry is typically formidable (frightening).
- Existing firms produce well known highly advertises products and sell them through established marketing outlets working against the successful entrance of new firms.
- Like firms in monopolistic competition, oligopoly firms rely upon differences in;

Cont …

- Price
- Quality
- Service
- Design
- Rapid product development
- Promotional outlays and
- Production images to promote their sales and increase profit.