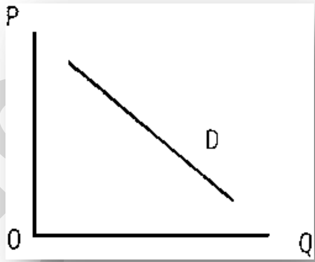
Economics Lecture Notes – Demand & Supply

Demand Curve

The demand curve is defined as the relationship between the price of the good and the amount or quantity the consumer is **willing and able** to purchase in a specified time period, given constant levels of the other determinants--tastes, income, prices of related goods, expectations, and number of buyers.



Determinants of Demand

1. Price of the good

2. Taste or level of desire for the product by the buyer

3. Income of the buyer

4. Prices of related products:

- substitute products (directly competes with the good in the opinion of the buyer; e.g. tea & coffee)
- complementary products (used with the good in the opinion of the buyer; e.g. car & petrol)

5. Future expectations:

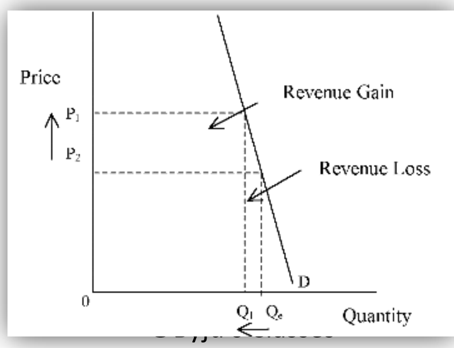
- expected income of the buyer
- expected price of the good.

Changes that decrease demand

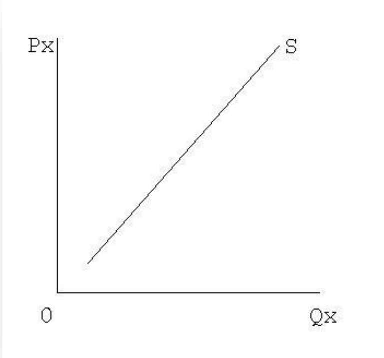
- decrease in price of a substitute
- increase in price of a complement
- decrease in income if good is normal good
- increase in income if good is inferior good

Elasticity of Demand - a measure of the sensitivity of the quantity variable, Q, to changes in the price variable, P. Elasticity answers the question of how much the quantity will change in percentage terms for a 1% change in the price, and is thus important in determining how revenue will change.

Inelastic demand curve is steep because even a large change in P causes little change in Q. An example is foodgrains – even if the price is increased a lot, people will not cut down on eating foodgrain; and if P decreases, people will not start eating more!



Supply



- The quantity of a commodity which a firm is willing to sell at a particular price
- Follows the 'supply curve'

Higher the price, greater the incentive for the firm to sell more

⇨ Supply will increase

Profit = Total Revenue – Total Cost

Revenue = Money received through the sale of output

= Price (P) x Quantity (Q)

⇨ All other things remaining constant, higher price leads to higher profits

Law of Demand – When price increases, quantity demanded (Qd)decreases

Law of Supply – When price increases, quantity supplied (Qs) also increases

Determinants of Supply

1. Cost of production – if it increases, supply decreases

   Shifts in the Supply Curve

   If cost of production increases, quantity supplied will reduce

   ⇨ Supply curve will shift leftwards

   If cost of production decreases, quantity supplied will increase

   ⇨ Supply curve will shift rightwards

2. Taxes

If taxes increase, supply will reduce, and the supply curve will shift leftwards

⇨ Impact of increase in cost of production and increase in taxes will be the same

After the global financial crisis of 2008, government reduced taxes to boost supply

⇨ This shifted the supply curve rightwards

3. Goals of Firms

Profit is not always the only goal of the firm

⇨ Goal may be sales maximization or social welfare
   - In this case, the supply increases, and the supply curve shifts rightwards

⇨ Supply may also increase due to good rainfall leading to increase in agri supply

4. Elasticity of Supply

"Responsiveness of the quantity supplied to the change in price"

If the change is steep => high elasticity

Elasticity (Es) = (% change in quantity supplied) / (% change in price)

- ✓ If Es>1 => supply is elastic
- ✓ If Es<1 => supply is inelastic

Determinants of elasticity of supply

- Overall determinant is choice – more the choice with the firm, higher the elasticity
  e.g. Perishable quantities – firm has no option/choice to store; has to sell at any price
  Similarly for agricultural commodities – inelastic supply

MARKET EQUILIBRIUM

- Quantity demanded = quantity supply

  Equilibrium point = point of intersection of demand and supply curves

  - Ideal situation – both buyers and sellers derive maximum utility and satisfaction from this point
- Markets comprise of two groups – buyers and sellers
  - Buyers want lower prices to maximize their satisfaction
  - Sellers want higher profits

- Reducing the price below the equilibrium will lead to shortage
  - ⇨ Price will automatically go up, in the interest of both the groups
- Increasing the price about the equilibrium will lead to over-supply
  - ⇨ Suppliers will reduce the price in order to sell all the stock

- ✓ **Consumer's equilibrium** is the situation where a consumer spends his income on various commodities in such a manner that he gets maximum satisfaction
- ✓ **Producer's equilibrium** is the situation where a firm produces that level of output which provides it maximum profits

Who fixes the price in the market – buyers, sellers, government or nobody?

- ⇨ It happens automatically through 'market mechanism'!
- ⇨ Also called Price Mechanism or the 'invisible hand' (Adam Smith)
- ⇨ Adam Smith is called the father of Economics (Book – An inquiry into the nature and the causes of the wealth of nations, 1776)
- ⇨ Wealth of nations is the first book on Economics, separating it from Philosophy
- ⇨ Though Kautilya's Arthshashtra dealt with Economics, it was primarily about statecraft

Impact of change in Demand & Supply

- ✓ When supply increases, price decreases (e.g. More supply of agricultural produce in the *mandis*)
- ✓ When demand increases, price increases (e.g. Price of fruits during Navratra)

Why are the prices of agricultural commodities volatile?

- ⇨ Because of inelasticity of demand & supply
  - You don't start eating more just because price is less!
  - Producers anyway have to sell of their agri products at any price (perishable goods)

Paradox of poverty of farmers

- If crops fail, farmers have nothing to sell and the farmers lose income
- But even when there are bumper crops, their income reduces!
  - Farmers lose in both the cases

Why do producers prefer to burn or sink the bumper crops, rather than sell?

- ⇨ Because if they export all, the supply will increase, price will come down, bringing down overall income

Justification of **Minimum Support Price** by the government

- If the govt. doesn't intervene, both farmers and consumers will lose
- With govt willing to buy ALL quantity at an attractive price (MSP), the farmers won't be incurring losses
  - It will reduce the fluctuation in prices, even in the case of overproduction

However, MSP is announced only for important crops (24 in number)

- ⇨ If govt will announce MSP for all (even potato, tomato etc), it will have to buy unlimited quantity of all these
- ⇨ Not enough storage for all the crops
- ⇨ Only those crops which are crucial to food security are supported by MSP

Difference between **MSP** & **Procurement Price**

- ⇨ MSP = Guarantee to buy **unlimited** quantity at this price for selected crops
  Procurement Price = Guarantee to buy only **limited** quantity for distribution in PDS & buffer storage
- ⇨ MSP = Usually below the market price (though not much below)
  Procurement Price = At or above the market price
- ⇨ MSP Objective = Protect the interest of farmers in case of overproduction
  Procurement Price Objective = Protect the interest of both, the consumers (through PDS)& farmers
- ⇨ MSP announced before sowing
  Procurement Price announced after harvest

- ⇨ Central Govt announces both these prices on the recommendation by Commission of Agricultural Costs & Prices (**CACP**); state govts also consulted

Pricing of Shares

Share market is a form of Capital Markets, which comprises of Primary & Secondary Markets

- ⇨ Security is the general term for all kinds of financial assets; share is also a security
- ⇨ Primary Market – First time selling of shares - Initial Public Offer (IPO)
  - Sold by firms to investors
- ⇨ Secondary Market – Existing shares are sold again
  - Sold by one investor to another
- ⇨ Shareholders are owners to the extent of the total value of their shares
  - They get proportion of the profits (called dividends) in return
  - They can't sell it back to the company (usually) – can only transfer it to other investors
- ⇨ Primary Market – price determined by the company
- ⇨ Secondary Market – price determined by Demand & Supply equations
  - The place where the transactions between buyers & sellers happen is called stock exchange
  - Money given to the company in order to invest in long term growth
  - Enables people to convert the shares into cash (provides liquidity to the existing securities)
- ⇨ SEBI regulates both, primary and secondary markets
- ⇨ In a stock market, shares are auctioned
  - Buyers created demand, sellers create supply

Demand curves are constructed on the basis of bids placed by interested buyers

Supply curves are constructed on the basis of the willingness of the sellers to sell at a particular price

Impact of positive news on share price

- ⇨ Buyers will become optimistic about the company's prospects
- ⇨ Demand will increase, shifting the demand curve rightwards
- ⇨ This increases the price
- ⇨ But fewer sellers will be there because they will hold on to the shares (good future prospects)
- ⇨ Supply curve will shift leftwards
- ⇨ Therefore **price will go up**

Indices of Stock Exchanges

- ⇨ Shows performance of the companies listed on that stock exchange through a representative group of companies (BSE – Sensex, comprising of 30 stocks; NSE – Nifty, comprising of 50 stocks)
- ⇨ Market Capitalization = Number of shares x Share Price

- ⇨ Demand & Supply depends on the perception of the investors regarding future performance of the company
    - o Perception of the future depends on – 1) Past & current performance of the company, 2) Govt Policy (liberal policy will help the company's performance), 3) Foreign Investment (if its high, the share price will go up), 4) Global factors (e.g. 2008 Financial Crisis caused a global crash of stock markets), 5) Macro Economic Factors (GDP, Inflation) and 6) Political Factors

If the Sensex goes up, can we say with certainty that the economic performance of the country will be good in the future?

- ⇨ We cannot be SURE, but chances are high that the overall performance will be good
- ⇨ Stock markets are based on perception and sentiments – they are right most of the time, but not all the time!

Practice Questions

1. Should the government of India stop interfering with the free market mechanism through its Minimum Support Price policy? Comment (100 words, 10 marks)
2. An increasing stock index does not always reflect a healthy economy. Comment with examples. (100 words, 10 marks)
3. What happens to the demand curve of luxury goods when RBI decreases the interest rates? (50 words, 5 marks)
4. If you are a student of economics, chances that you will take up farming as an occupation are very slim. Do you agree? Why or why not? (50 words, 5 marks)
5. The global financial crisis of 2008 highlighted the weaknesses in free market mechanism. Comment (100 words, 10 marks)