

Course– MACROECONOMICS

Lecture 13 ELASTICITY OF DEMAND

August, 2015



TOPICS TO BE DISCUSSED

1. Elasticity of Demand:

- Meaning of elasticity of demand

2. Types of Elasticity of Demand

- Price elasticity of demand: Meaning and measurement

3. Degrees of price elasticity of demand

- Perfectly elastic
- Perfectly inelastic
- Unitary elastic

ELASTICITY OF DEMAND

Elasticity is a measure of the degree of responsiveness of one variable to changes in another variable.

Elasticity of Demand:

Elasticity of demand is a measure of the degree of responsiveness of demand to changes in its determinants

Greater the elasticity, greater will be the responsiveness

TYPES OF ELASTICITY OF DEMAND

➤ **Price Elasticity of Demand**

➤ **Income Elasticity of Demand**

➤ **Cross Elasticity of Demand**

PRICE ELASTICITY OF DEMAND

- Measures the degree of responsiveness of quantity demanded to change in price of the commodity/product
- Proportionate change in quantity demanded due to change in price

Example: If a computer firm decides to increase selling price of desktop by 5%, What will happen to the demand for desktop?

- Will Increase or Decrease?
- By how much %?

MEASUREMENT OF PRICE ELASTICITY OF DEMAND

Ep =

Percentage Change in Quantity

Percentage Change in Price

Ep =

Change in Quantity (ΔQ)

Quantity (Q)

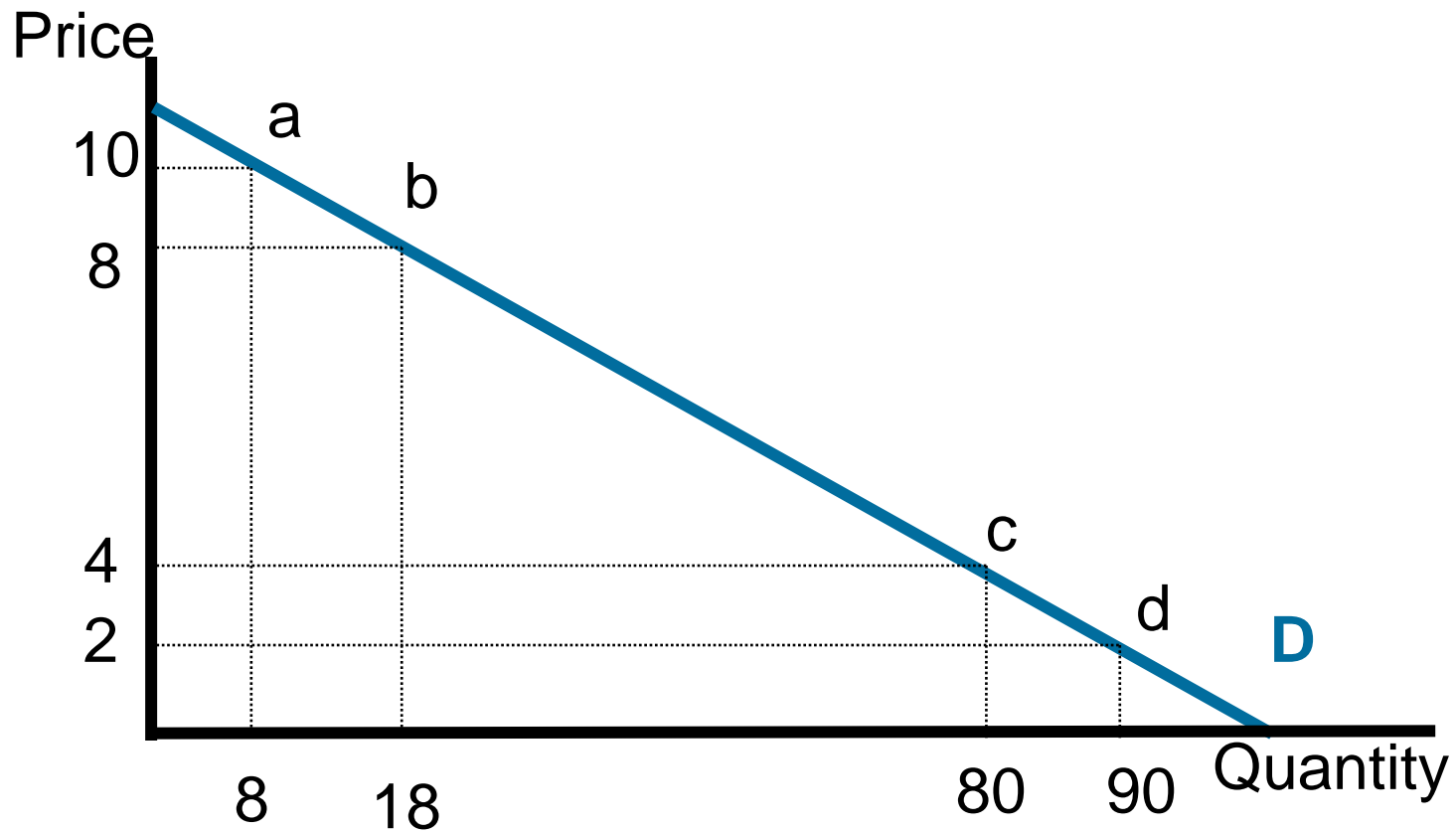
Change in Price (ΔP)

Price (P)

PRICE ELASTICITY OF DEMAND

$$E_p = \frac{\frac{Q_1 - Q (\Delta Q)}{Q}}{\frac{P_1 - P (\Delta P)}{P}}$$

$$E_p = (-) \frac{\frac{P}{Q}}{\frac{\Delta Q}{\Delta P}} \times$$



$$E_p (a \text{ --- } b) = (10/8)/(-2/10) = -6.25$$

$$E_p (c \text{ --- } d) = (10/80)/(-2/4) = -.25$$

INTERPRETATION OF COEFFICIENT OF ELASTICITY OF DEMAND

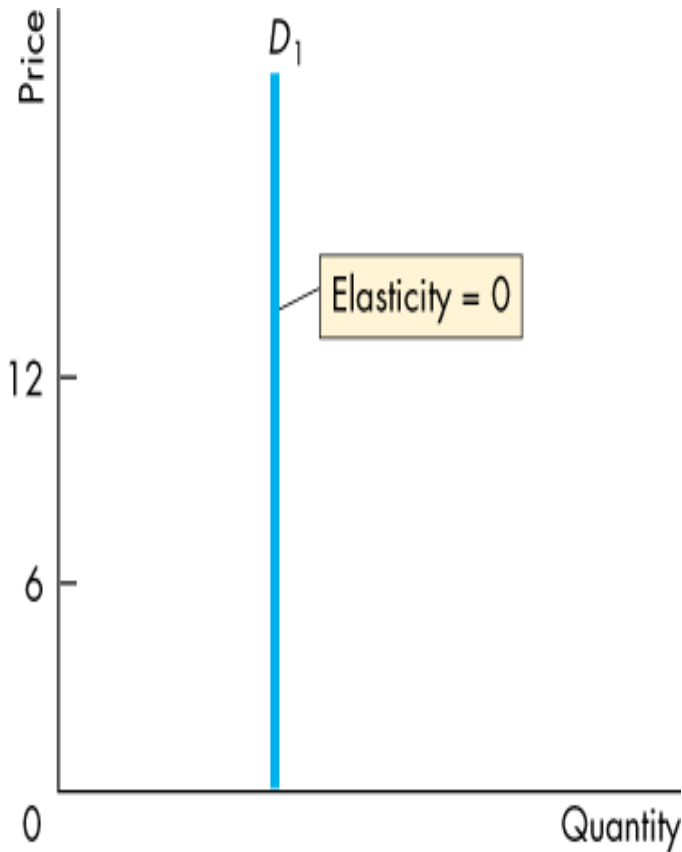
A price elasticity of -6.25 means that for each 1% change in price the quantity demanded will change by 6.25 %.

If price of a desktop computer increases by 1%, its quantity demanded will decrease by 6.25%

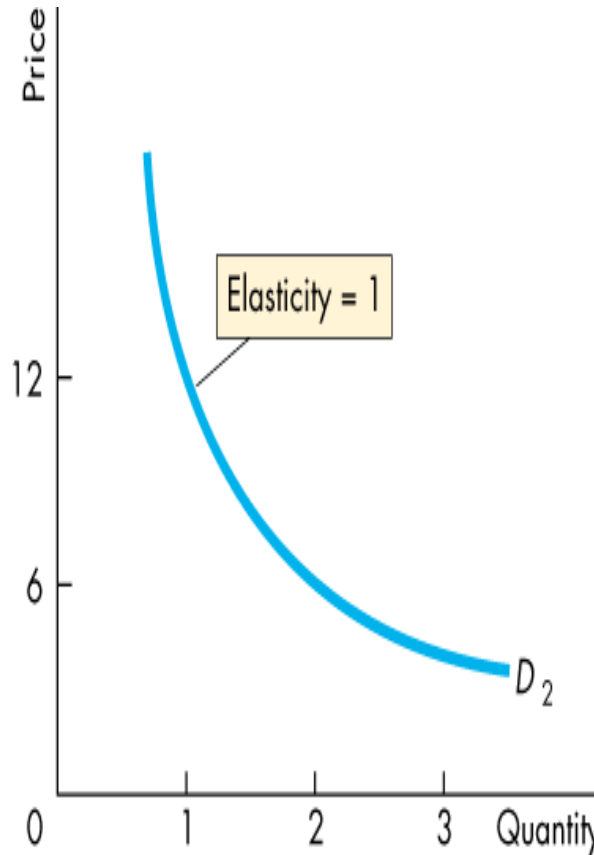
DEGREES OF PRICE ELASTICITY OF DEMAND

- Perfectly Elastic Demand
- Unit/Unitary Elastic Demand
- Perfectly Inelastic Demand

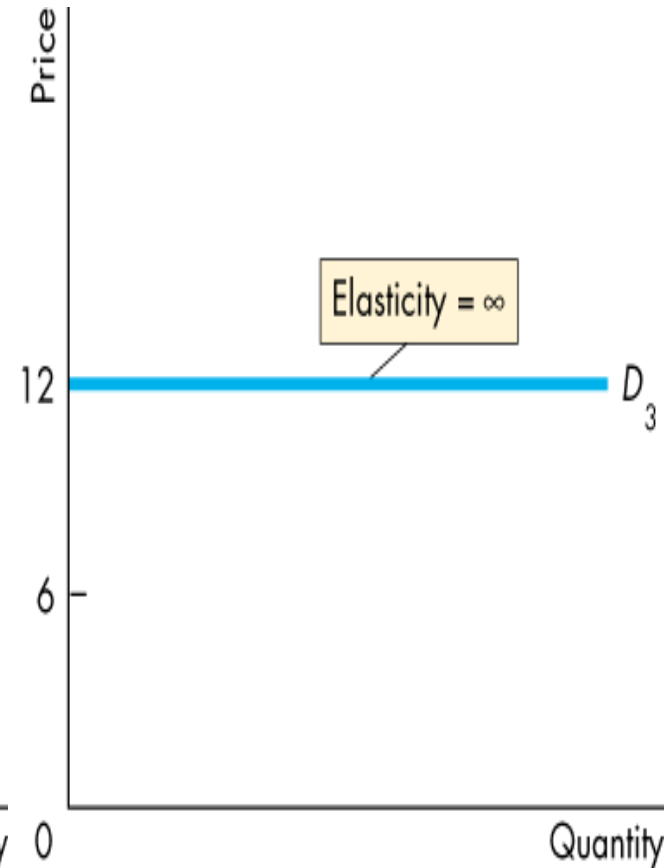
DEGREES OF PRICE ELASTICITY OF DEMAND



(a) Perfectly inelastic demand

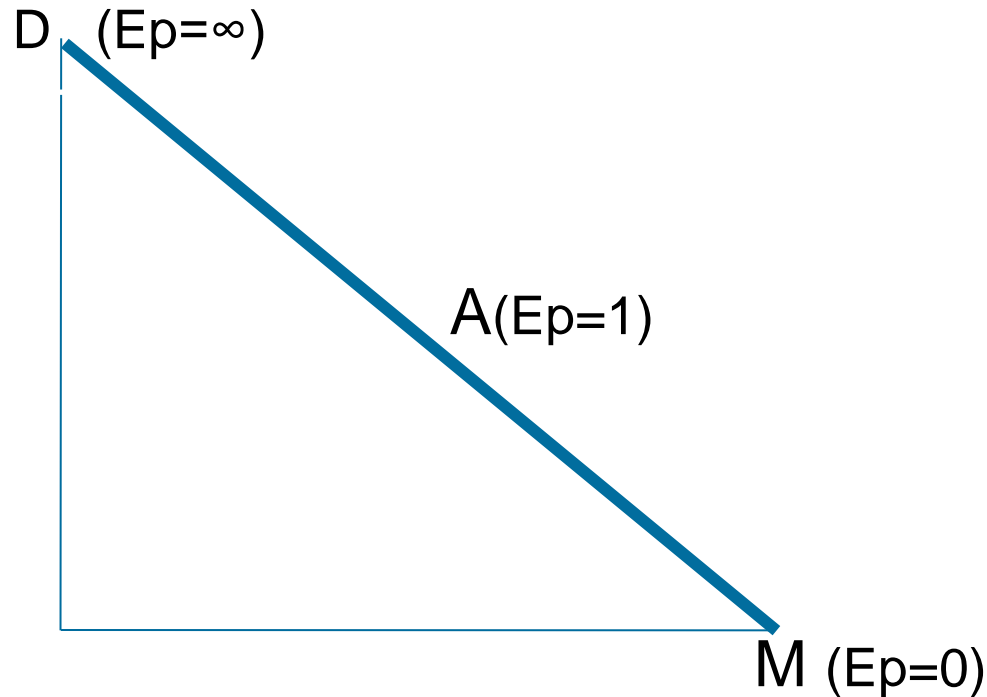


(b) Unit elastic demand



(c) Perfectly elastic demand

DEGREES OF PRICE ELASTICITY OF DEMAND



$$E_p = \frac{AM}{AD}$$

| E_p | > 1 : Elastic, Comforts

| E_p | < 1 : Inelastic, Necessities

| E_p | = 1 : Unit-elastic, Luxuries

Thank You 😊