

SPD College, Garhwa (JH)

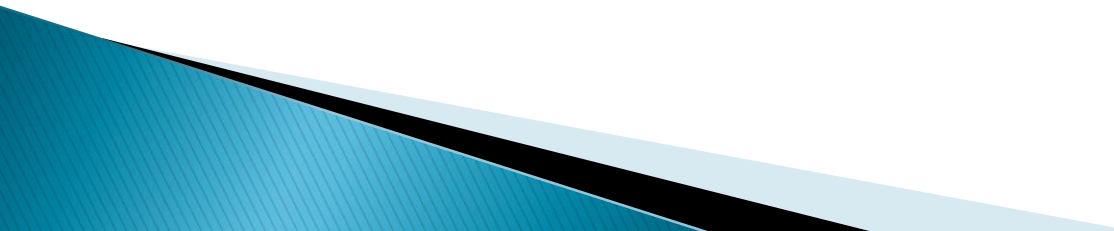
Department of Economics

presents ...

Presentation on:
Elasticity of Demand
(UG Sem-I: Micro Economics : NEP)

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Main Points of the topic

- ▶ **Meaning of Elasticity of Demand**
 - ▶ **Definition of elasticity**
 - ▶ **Types of Elasticity**
 - ▶ **Types of Price Elasticity**
 - ▶ **Measurement of Price Elasticity**
 - ▶ **Mrs. Robinson's View**
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Meaning of Elasticity of Demand

Law of Demand illustrates merely the inverse relation between quantity demanded for a commodity and its price. On the other hand, the elasticity of demand studies the proportionate change in quantity demanded as a result of proportionate change in price.

“Elasticity of demand is a measure of the responsiveness of quantity demanded to a change in price.” – JK Estham

Prof. G. Stigler's definition

$$Ed (\eta) = \frac{\text{Proportionate change in amount demanded}}{\text{Proportionate change in price}}$$

[Expressing the change by Δ]

$$\begin{aligned} & \frac{\frac{\Delta Q}{Q}}{\frac{\Delta P}{P}} \\ &= \frac{\Delta Q}{Q} \div \frac{\Delta P}{P} \\ &= (-) P/Q \cdot \Delta Q / \Delta P \end{aligned}$$

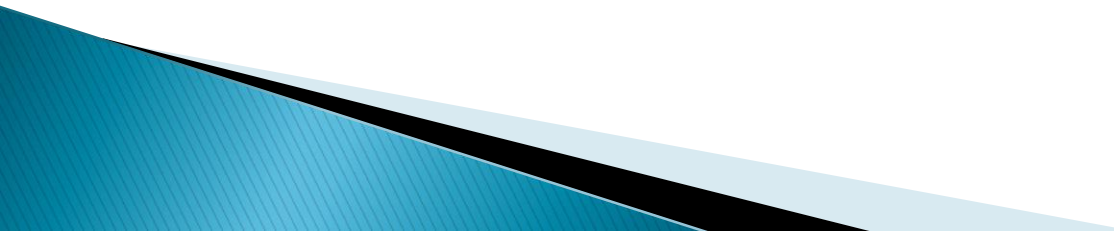
Numerical example

The price of pen is @ ₹ 4.00 / pen and demand is 10 units. If the price falls to ₹2.00 / each demand increases to 16 pen. Then what will be elasticity of demand?

Solution : Here, $P=4$, $Q=10$ and $\Delta P=4-2=2$, $\Delta Q=16-10=6$.

$$\begin{aligned}\text{Now, } E_d &= (-) P/Q \cdot \Delta Q / \Delta P \\ &= (-) 4/10 \cdot 6 / 2 = 1.20 > 1 \\ &\hspace{15em} \text{(greater than unity)}\end{aligned}$$

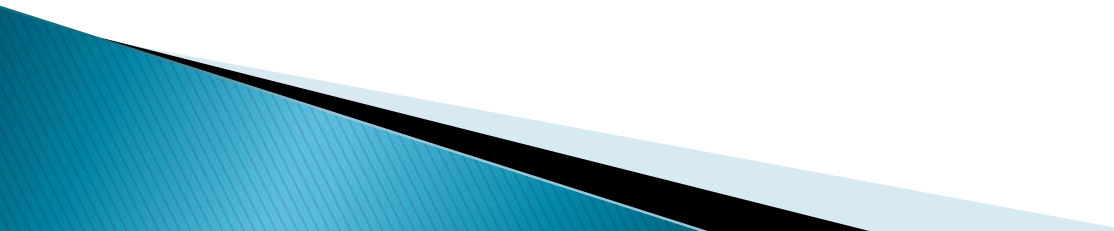
Types of Elasticity of Demand

1. Price Elasticity – related to change in price of commodity and quantity demanded.
 2. Income Elasticity – related to change in the income of consumers and quantity demanded.
 3. Cross Elasticity – related to change in price of X and quantity demanded of Y.
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Types of Price Elasticity

- ▶ **Perfectly inelastic** ($E_d = 0$)
- ▶ **Perfectly elastic** ($E_d = \infty$)
- ▶ **Unitary elastic** ($E_d = 1$)
- ▶ **Elasticity less than 1** ($E_d < 1$)
- ▶ **Elasticity greater than 1** ($E_d > 1$)

Measurement of Price Elasticity

- ▶ Total Expenditure Method (Alfred Marshall)
 - ▶ Proportionate/Percentage Method (Prof. Flux)
 - ▶ Arc Method
 - ▶ Point Method or Geometrical Method.
 - ▶ Mathematical Method (G. Stigler)
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Mrs. Joan Robinson's view

$$E = AR \div (AR - MR)$$

Where, AR = Average Revenue

MR = Marginal Revenue

E = Elasticity

..... The End



Thanks for watching

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