CLASS :XI

SUBJECT:MICRO ECONOMICS
CHAPTER NUMBER:2(2.3)
CHAPTER NAME : THE THEORY OF CONSUMER BEHAVIOUR (ELASTICITY OF DEMAND)

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Law of Demand

Law of Demand states that if price of commodity increases quantity demanded will falls and if price of commodity falls quantity will increases.

Law of demand indicates only direction of change in quantity demanded in response to change in price but ***ELASTICITY OF DEMAND*** states with how much or to what extent the quantity demanded will change in response to change in any determinants.

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Meaning & Definition of Elasticity of Demand

Elasticity of Demand measures the extent to which quantity demanded of a commodity increases or decreases in response to increase or decrease in any of its quantitative determinants.

So, we have several types of elasticity of demand according to the source of the change in the demand. For example, if the price is the source of the change, we have the "price elasticity of demand".

"The elasticity (or responsiveness) of demand in a market is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price". – ***Dr. Marshall.***

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Price Elasticity of Demand

Price Elasticity of demand is a measurement of percentage change in demand due to percentage change in own price of the commodity.

The price elasticity of Demand may be defined as the ratio of the relative change in demand and price variables.

$$e = \frac{\text{Percentage/Proportional Change in Quantity Demanded}}{\text{Percentage/Proportional Change in Price}}$$

Degree of Price Elasticity of Demand

Five cases of elasticity of demand are studied depending upon their degree:

- Perfectly Elastic
- Perfectly Inelastic
- Unitary Elastic
- Relatively Elastic
- Relatively Inelastic

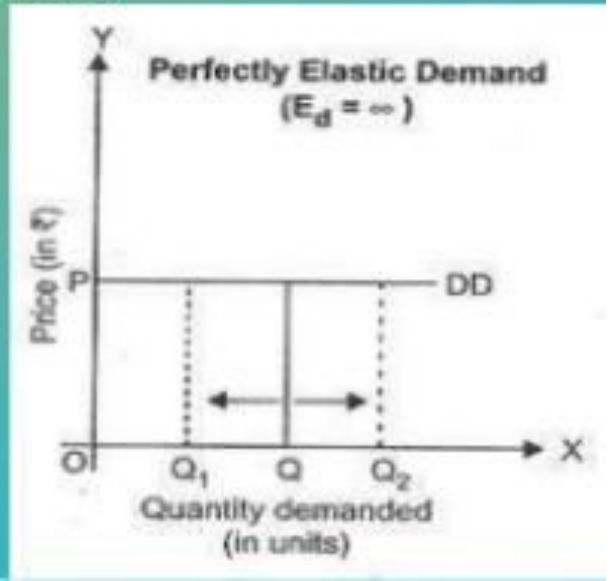
Perfectly Elastic Demand

When a small change in price of a product causes a major change in its demand, it is said to be perfectly elastic demand. In perfectly elastic demand, a small rise in price results in fall in demand to zero, while a small fall in price causes increase in demand to infinity.

A perfectly elastic demand refers to the situation when demand is infinite at the prevailing price.

In perfectly elastic demand, a small rise in price results in fall in demand to zero, while a small fall in price causes increase in demand to infinity.

The degree of elasticity of demand helps in defining the shape and slope of a demand curve. Therefore, the elasticity of demand can be determined by the slope of the demand curve. **Flatter the slope of the demand curve, higher the elasticity of demand.**



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Perfectly Inelastic Demand

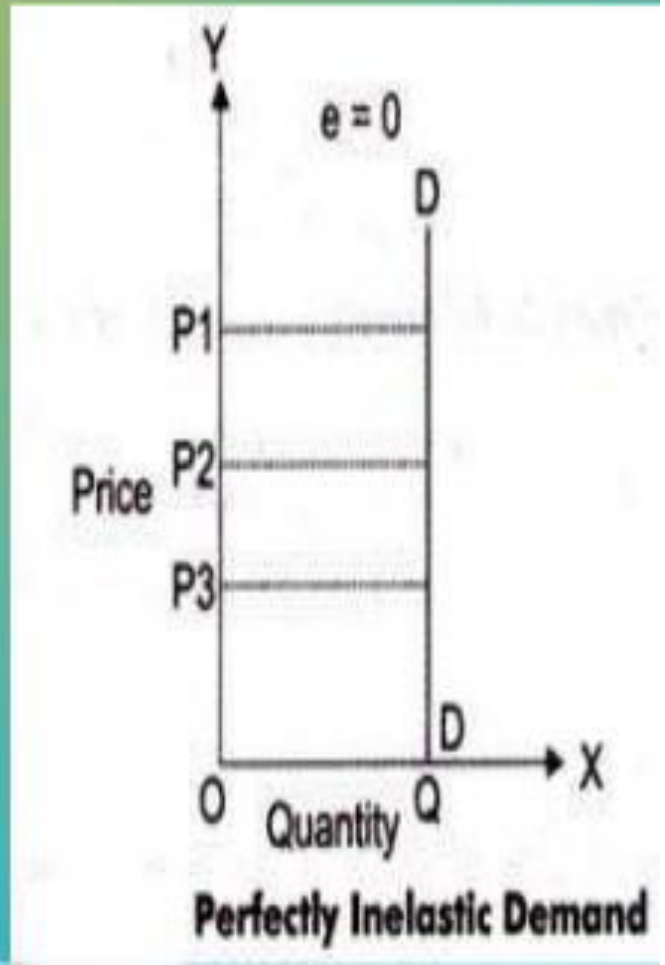
A Perfectly inelastic demand is one in which a change in price causes no change in quantity demanded.

It is a situation where even substantial changes in price leave the demand unaffected.

It can be interpreted from Figure that the movement in price from OP1 to OP2 and OP2 to OP3 does not show any change in the demand of a product (OQ).

The demand remains constant for any value of price.

Perfectly inelastic demand is a theoretical concept and cannot be applied in a practical situation. However, in case of essential goods, such as salt, the demand does not change with change in price. Therefore, the demand for essential goods is perfectly inelastic.



Perfectly Inelastic Demand

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Unitary Elastic Demand

- When the proportionate change in demand produces the same change in the price of the product, the demand is referred as unitary elastic demand. The numerical value for unitary elastic demand is equal to one (e_p=1).

- **The demand curve for unitary elastic demand is represented as a rectangular hyperbola.**

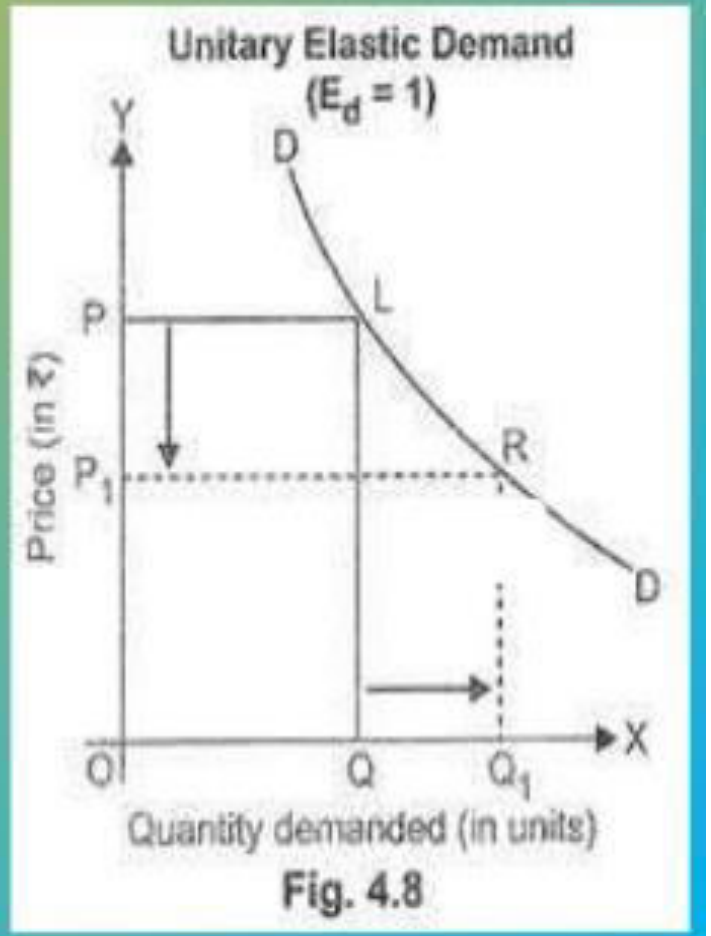


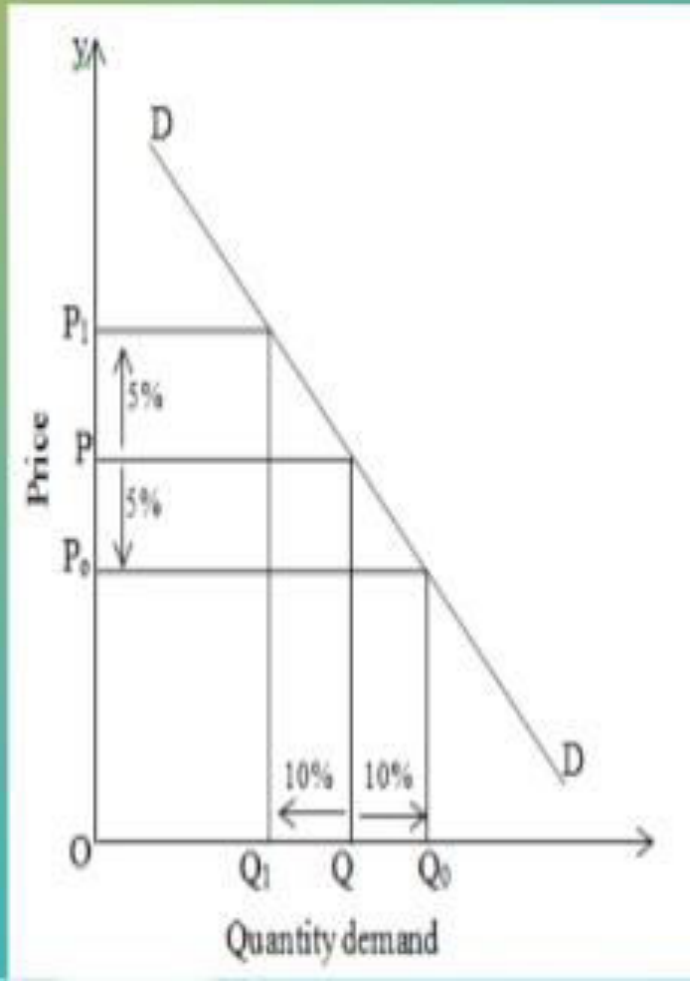
Fig. 4.8

Relatively Elastic Demand

Relatively elastic demand refers to the demand when the proportionate change produced in demand is greater than the proportionate change in price of a product.

Mathematically, relatively elastic demand is known as more than unit elastic demand (e_p>1). For example, if the price of a product increases by 20% and the demand of the product decreases by 25%, then the demand would be relatively elastic.

In this the demand is more responsive to the change in price



Value of Elasticity co-efficients and their Description

	Value of Elasticity Co-efficient	Degrees of Elasticity	Description
1	$E_d = 0$	Perfectly Inelastic demand	Change in price causes no change in quantity demanded.
2	$E_d < 1$	Less than unitary elastic demand	Percentage change in demand is less than percentage change in price.
3	$E_d = 1$	Unitary elastic demand	Percentage change in demand is equal to percentage change in price.
4	$E_d > 1$	Greater than unitary elastic demand	Percentage change in demand is more than percentage change in price.
5	$E_d = \infty$	Perfectly elastic demand	Little change in price causes an infinite change in demand.

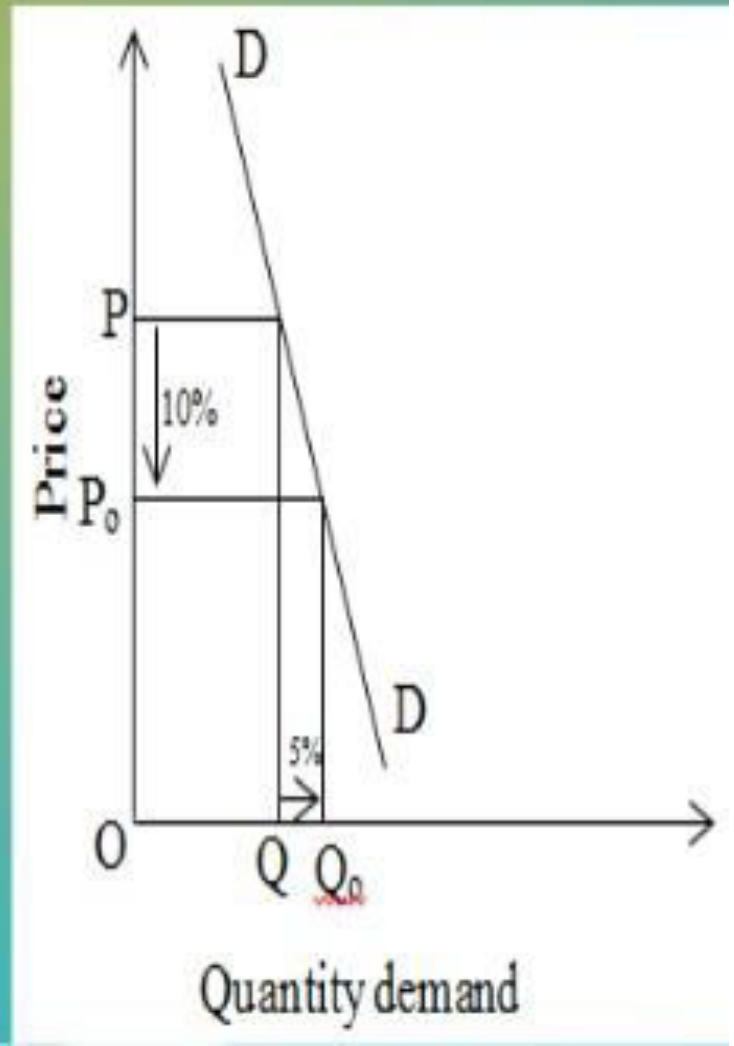
Relatively Inelastic Demand

Relatively inelastic demand is one when the percentage change produced in demand is less than the percentage change in the price of a product.

For example, if the price of a product increases by 30% and the demand for the product decreases only by 10%, then the demand would be called relatively inelastic.

The numerical value of relatively elastic demand ranges between zero to one (e_p<1).

Marshall has termed relatively inelastic demand as elasticity being less than unity.



DETERMINANTS OF ELASTICITY OF DEMAND

1. Availability of substitutes
2. Proportion of income spent on a commodity
3. Different uses of commodity
4. Habit of consumer
5. Nature of commodity
6. Postponement of the use

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IMPORTANCE OF PRICE ELASTICITY OF DEMAND

1. *To a monopolist*
2. *To a finance minister*
3. *Useful in factor pricing*
4. *Useful in international trade*
5. *Explanation of paradox of poverty of farmer*

Cross Elasticity of Demand

There is a mutual relationship between change in price and quantity demanded of two related goods. Change in the price of one good can cause change in the demand for the related good.

MEASUREMENT OF CROSS ELASTICITY OF DEMAND

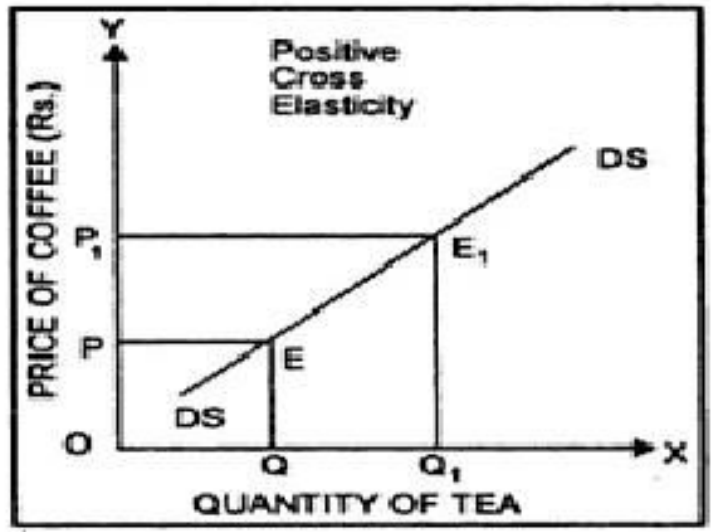
Cross elasticity of demand is measured by the following formula :

$$Ec = \frac{\text{Percentage change in Quantity demanded of Good -X}}{\text{Percentage change in the price of Good-Y}}$$

Degrees of Cross Elasticity of Demand

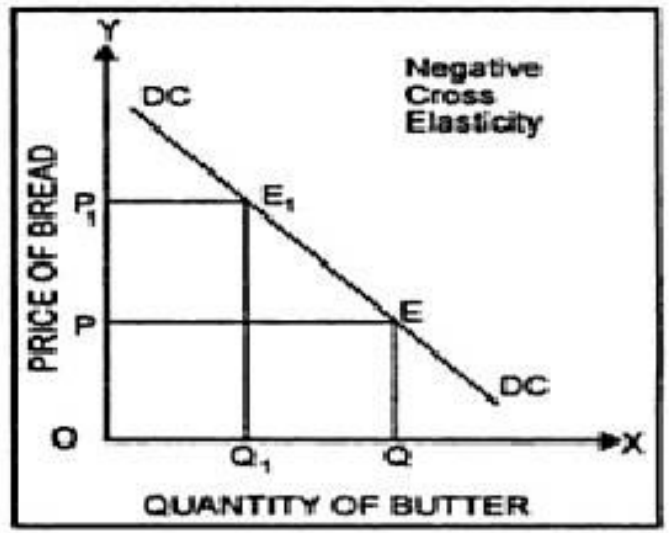
- Positive :

When goods are substitutes of each other, then a given percentage rise in the price of good will lead to a given percentage increase in the demand for the other good. In other words, cross elasticity of demand is positive in case of substitutes.



Negative

In case of complementary goods (jointly demanded goods), percentage rise in the price of one leads to percentage fall in the demand for the other.



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