<u>Demand and Supply</u>

Demand is the willingness and ability to buy a product.

Quantity demanded is the amount of a good and service consumer is willing and able to buy.

Individual Demand is demand by one consumer for a product.

Market Demand is total demand by all consumers for that product.

For a demand to be effective, consumers must have enough money to buy the goods and services.

Supply is the willingness and amount a producer will make and supply a good at different prices.

Quantity supplied is the amount a producer is willing and able to make and sell to consumers. It's measured in time.

A Demand Curve Shows:

1. As price increases quantity demanded decreases ceteris paribus ('all other things unchanged').
2. Demand price curve is downward sloping.
3. Inverse Relationship between quantity demanded and price.

Extension/Contraction on demand curve:

Extension and contraction movement happens on the curve due to changes in price.

Extension/Quantity Demanded	Contraction
Quantity demand increases as price falls ceteris paribus.	Quantity demanded decreases as price increases ceteris paribus

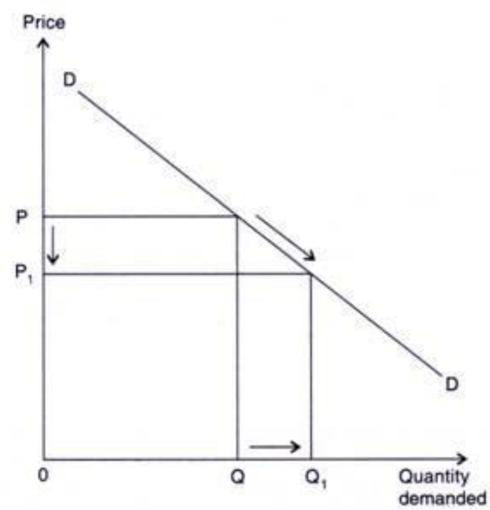


Fig. 4 An extension in demand

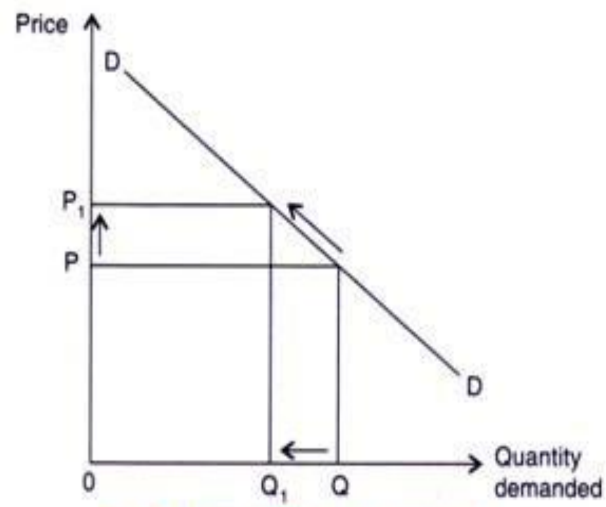


Fig. 5 A contraction in demand

An increase in demand or fall in demand – Shift of the curve.

A quantity demanded increases or demanded – Extension or contraction of Curve

Factors affecting Demand:

Price Factor
✓ Demand will be affected by a change in price, other factors remain constant.
✓ But a basic commodity if the price change won't make much change to that demand. Eg. Salt
✓ But change in price of a luxury good effect its demand.

Price Elasticity of demand: PED shows how quantity demand changes with price changes.

Difference between:

Sr. No.	Elastic Demand	Inelastic Demand
1.	When PED is greater than 1	When PED is less than 1
2.	Demand curve is flatter	Demand curve is steep
3.	A small change in price causes a big change in quantity demanded	A small change in price cause a small change in quantity demanded
4.	An increase in price causes a decrease in revenue	An increase in price causes an increase in revenue
5.	Luxury (expensive goods)	Low cost goods, oil, salt, paper
6.	There are many substitutes	There are few substitutes (people have to take train at peak times.
7.	Consumers do not have to buy often and have time to search for alternatives. Eg. Car, holidays, art.	It's a necessity to be purchased regularly.
8.	When price ↑ Revenue will ↓ When price ↓ Revenue will ↑ An increase in price causes a decrease in Revenue	When price ↑ Revenue will ↑ When price ↓ Revenue will ↓ An increase in price causes an increases in Revenue

Demand for product is:

Sr. No.	Price Elastic if:	Price Inelastic if:
1.	There are many substitutes eg. detergent	There are few substitutes (People have to take train at peak times)
2.	It is expensive eg. Luxury goods	It's low cost good eg. Newspaper
3.	Consumers do not have to buy frequently and they have time to search for alternatives.	It's a necessity to be purchased regularly like gas, electricity.

Price Elasticity of supply: PES shows quantity supplied changes with price changes.

Extension/Contraction on supply curve:

Extension/Quantity Supplied	Contraction
Supply increases with price of a product, other thing being equal.	Supply contracts decreases with a fall in price, other things being equal.

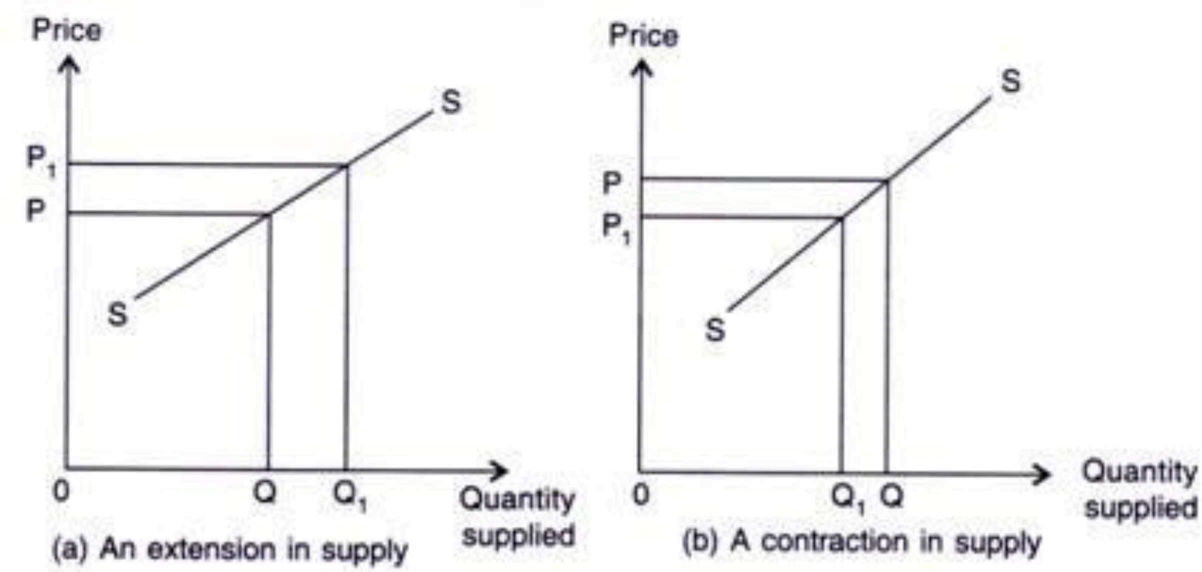


Fig. 7

1. **Price Elasticity of Demand** = $\dfrac{\text{\%change in quantity demanded}}{\text{\% change in price}}$

2. **% Change in quantity demanded** = $\dfrac{\text{Change in quantity X100}}{\text{Original quantity}}$

3. **% Change in price** **=** $\dfrac{\text{Change in price X 100}}{\text{Original price}}$

- ✓ If PED is > 1 then demand is **Elastic.**
- ✓ If PED is < 1 then demand is **Inelastic.**

Examples:

1. **Is the price elastic or inelastic? Give reasons.**

Price of Beans	**Market Demand/week**
40 Cents	1,000
30 Cents	1,500

1. **% Change in quantity demanded** = $\dfrac{(1{,}500 - 1{,}000) \text{ X } 100}{1{,}000} = 50\%$

2. **% Change in price** **=** $\dfrac{(40 - 30) \text{ X } 100}{40} = 25\%$

3. **Price Elasticity of Demand** = $\dfrac{50\%}{25\%} = 2$

Demand is elastic because % change in price of 25% is less than percentage change in quantity demanded of 50%. The PED is 2 which is greater than 1.

2. **Is the price elastic or inelastic? Give reasons.**

Price of Good	Market Demand/week
\$10	200
\$8	220

1. **% Change in quantity demanded** = $\frac{(220 - 200) \times 100}{200}$ = 10%

2. **% Change in price** **=** $\frac{(10-8) \times 100}{10}$ = 20%

3. **Price Elasticity of Demand** = $\frac{10\%}{20\%}$ = 0.5

PLEASE NOTE !

Demand is inelastic because % change in price of 20% is more than percentage change in quantity demanded of 10%. The PED is 0.5 which is less than 1.

1. **Price Elasticity of supply** = $\dfrac{\text{\%change in quantity supplied}}{\text{\% change in price}}$

2. **% Change in quantity supplied** = $\dfrac{\text{Change in quantity X100}}{\text{Original quantity}}$

3. **% Change in price** **=** $\dfrac{\text{Change in price X 100}}{\text{Original price}}$

- ✓ If PES is > 1 then supply is **Elastic.**
- ✓ If PES is < 1 then supply is **Inelastic.**

Examples:

1. **Is the price elastic or inelastic? Give reasons.**

Price of Wheat	Market Supply/week
200 Cents	20,000
400 Cents	24,000

2. **% Change in quantity supplied** = $\dfrac{(24{,}000 - 20{,}000) \text{ X } 100}{200} = 20\%$

3. **% Change in price** **=** $\dfrac{(400-200) \text{ X } 100}{200} = 100\%$

4. **Price Elasticity of Supply** = $\dfrac{20\%}{100\%} = 0.2$

Supply is inelastic because price elasticity of supply is less than 1.

2. **Is the price elastic or inelastic? Give reasons.**

Price per KG (cents)	Qty supplied of man-made rubber/month
200 Cents	2,000
160 Cents	3,000

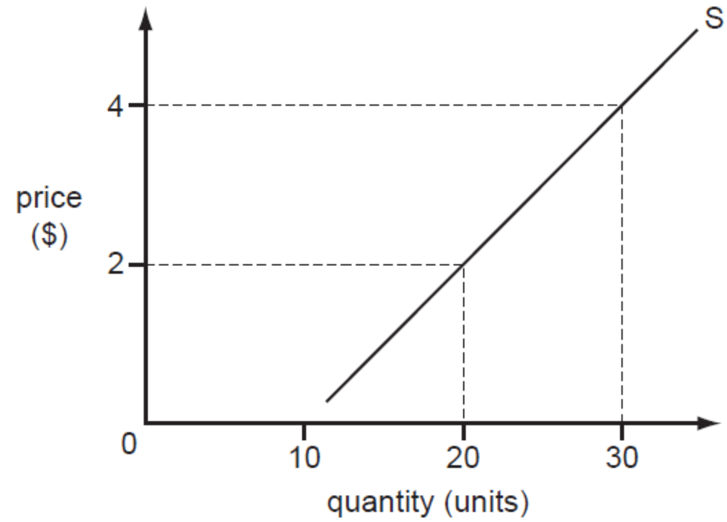
1. **% Change in quantity supply** = $\frac{(3,000 - 2,000) \times 100}{2000} = 50\%$

2. **% Change in price** = $\frac{(200-160) \times 100}{200} = 20\%$

3. **Price Elasticity of Supply** = $\frac{50\%}{20\%} = 2.5$

Supply is elastic because price elasticity of supply is greater than 1.

8 The diagram shows the supply curve for a good.



What is the price elasticity of supply when the price rises from $2 to $4?

A 0.2 **B** 0.5 **C** 1 **D** 2

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Solution:

Reasons:

7 The table illustrates the demand and supply for rice in a market in Africa.

price per kg ($)	quantity demanded (kg)	quantity supplied (kg)
10	50	10
20	40	20
30	30	30
40	20	40

When the price rises from $20 to $30 per kg, what is the approximate price elasticity of demand for rice?

A 0.25 **B** 0.5 **C** 1.0 **D** 2.0

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Solution:

Reasons:

Anskey

8)

Solution:

1. **% Change in quantity supply** = $\frac{(30-20) \times 100}{20}$ = 50%

2. **% Change in price** = $\frac{(4-2) \times 100}{2}$ = 100%

3. **Price Elasticity of Supply** = $\frac{50\%}{100\%}$ = 0.5

Reason: **Supply is inelastic** because price elasticity of supply is less than 1.

7) ***Solution:***

1. **% Change in quantity demand** = $\frac{(40-30) \times 100}{40}$ = 25%

2. **% Change in price** = $\frac{(30-20) \times 100}{20}$ = 50%

3. **Price Elasticity of Demand** = $\frac{25\%}{50\%}$ = 0.5

Reason: **Demand is inelastic** because price elasticity of demand is less than 1.