

## Economics Revision

# AS Economics

# Demand

Notes by: Apsara Sumanasiri

Student Name : .....

Date: .....

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## Shape of the Demand Curve

The demand curve is downward sloping because of:

- 1) **The substitution effect** – decreased price of a good → cheaper relative to substitutes therefore some consumers switch to this good.
- 2) **The income effect** – decreased price of a good may mean that the real income of consumer increases – more purchasing power therefore more of the good can be bought.

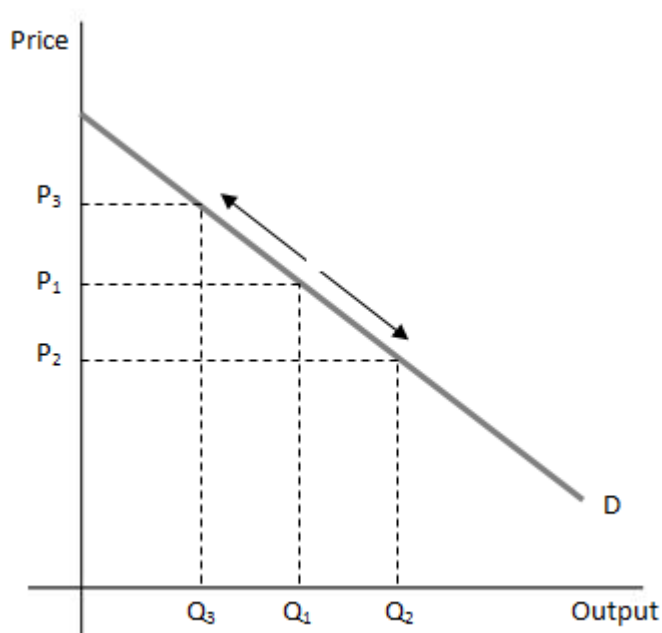
This assumes that all other factors which could affect demand remain constant – ceteris paribus.

## Movement along a Demand Curve

Movement occurs when there is a change in price.

Decreased P → extension/expansion in D:  $P_1 \rightarrow P_2$  leads to  $Q_1 \rightarrow Q_2$

Increased P → contraction in demand:  $P_1 \rightarrow P_3$  leads to  $Q_1 \rightarrow Q_3$



## Shifts in the Demand Curve

Shift outwards (to the right) – increase in demand. }  
Shift inwards (to the left) – decrease in demand. } At every price level.

Shifts can occur due to non-price determinants of demand:

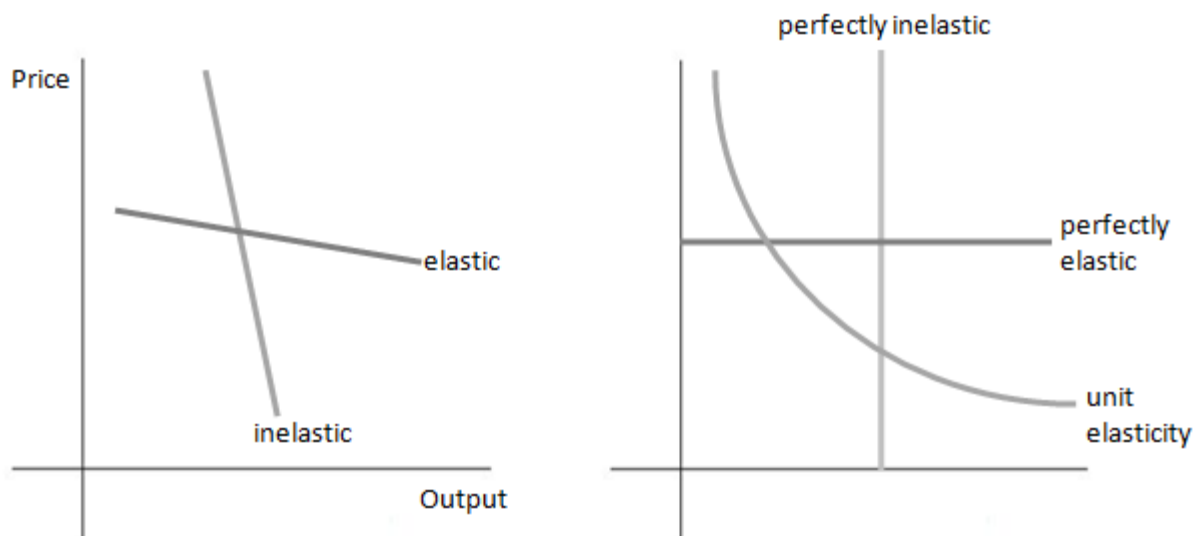
- 1) **Income** – increased disposable income lead to increased demand (generally). Increased income tax leads to decreased demand.
- 2) **Prices of Complements** – increased price of complement leads to decreased demand for good.
- 3) **Prices of Substitutes** – increased price of substitute leads to increased demand for good.
- 4) **Tastes/Fashion/Advertising** – change in tastes can change demand for a good – increased advertising can increase D for a good.

## Price Elasticity of Demand

Response in quantity demanded to change in price:

$$\frac{\% \Delta QD}{\% \Delta P}$$

- If a good is **price elastic** it is highly responsive to a change in price (has a  $PED > 1$ ).
- If a good is **price inelastic** it is relatively unresponsive to a change in P (has a  $PED < 1$ ).
- If a good has **unit elasticity** change in P is equal to change in QD ( $PED = 1$ ).
- If a good is **perfectly inelastic** change P has no effect on QD ( $PED = 0$ ).
- If a good is **perfectly elastic** change in P causes QD to fall to zero ( $PED = \infty$ ).



## Non-price determinants of PED:

### 1) Necessity:

- If the good is necessary D is relatively inelastic, e.g. fuel bills.
- Luxury goods have more elastic D.

### 2) Substitutes:

- More available → more elastic PED e.g. market for bread less elastic than for white bread.
- More close/plentiful the substitutes, more elastic the demand.
- Longer time for consumers to respond to a  $\Delta$  in P and find a substitute → more elastic demand (i.e. longer time to vary purchasing decisions).
- Short term – inelastic – e.g. needing to buy a ticket for the tube and finding out the P has changed at the station.

### 3) Proportion of income spent on the good:

- Less significant P → more inelastic.

### 4) Habitual Consumption:

- Less sensitive to  $\Delta$  in P if consumed habitually – more inelastic.

### 5) Peak/off peak demand:

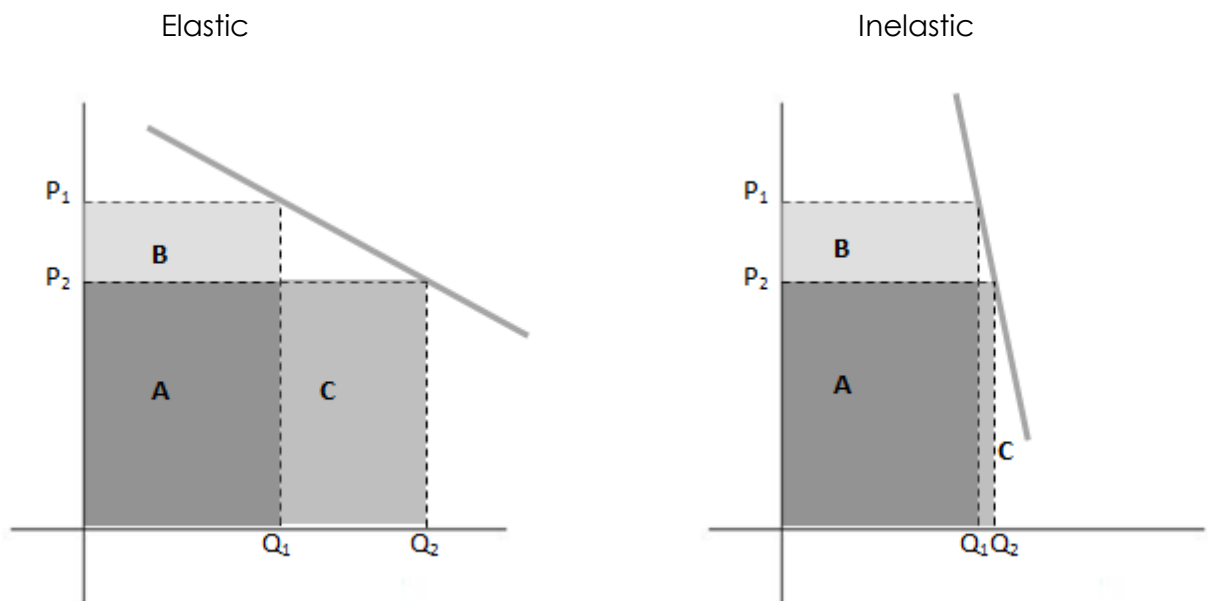
- Peak times – P more inelastic.

### 6) Durability:

- Product lasts longer – people can wait longer to buy more – more elastic.

## PED and Revenue:

Revenue = price x quantity demanded (i.e. area under demand curve).



With elastic demand, if price decreases from  $P_1$  to  $P_2$  revenue will increase, as can be seen on the graph – the revenue of AB increases to the revenue of AC. Likewise, if price increases revenue will decrease from AC to AB.

With inelastic demand, if price increases from  $P_2$  to  $P_1$  revenue will increase – from AC to AB on the graph. However if price decreases revenue will decrease from AB to AC.

### Marginal revenue

- Falls when demand is more inelastic.
- When it is +ve demand is price elastic.
- When it is 0 demand is unit inelastic.
- When it is -ve demand is price inelastic.

Once unit elasticity is reached, total revenue is maximised.

## Income Elasticity of Demand (YED)

Income elasticity of demand measures the change in quantity demanded of a good in response to a change in real income.

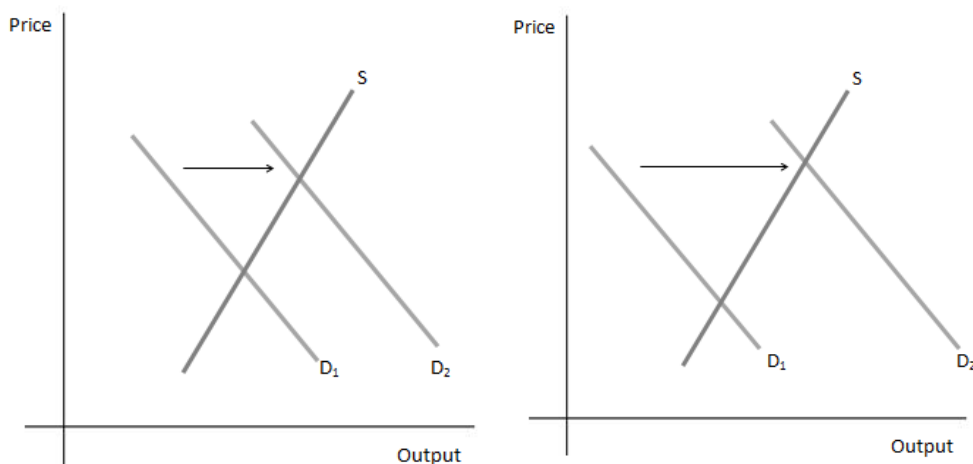
$$\frac{\% \Delta QD}{\% \Delta Y}$$

Changes in Y will affect different goods in different ways.

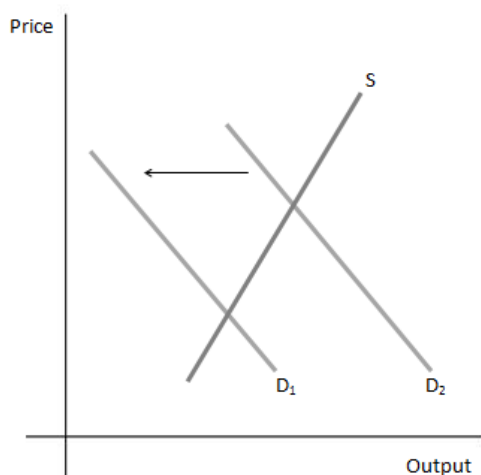
**Normal Goods:** these goods have a +ve YED, i.e. as income increases so does demand.

- Luxury/superior goods – have a YED > 1, i.e. demand rises more than proportionately in response to a change in Y.
- Necessities – have a YED < 1, i.e. demand rises less than proportionately in response to a change in Y.

Increased income and demand for necessities: Increased income and demand for luxuries:



**Inferior Goods:** these goods have a –ve YED, i.e. when Y increases QD decreases.



YED also varies within a product range – YED for Sainsbury's Basics chocolate is most likely lower than for Lindt Chocolate.

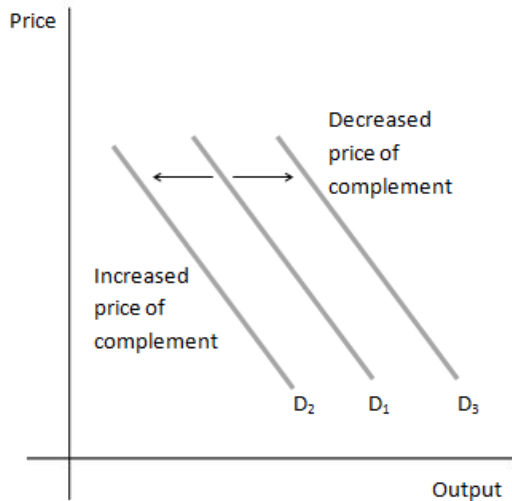
Also, YED for a product generally decreases over time as society becomes richer – what was previously a luxury might now be considered a necessity.



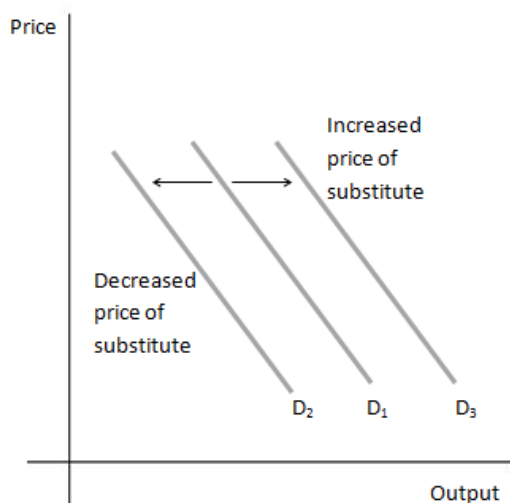
## Cross Elasticity of Demand (XED)

XED is the responsiveness of demand for good B to a change in price of good A. It is used to determine whether goods are complements or substitutes for each other.

$$\frac{\% \Delta QD}{\% \Delta Y}$$



**Complements:** complementary goods are in joint demand and have a -ve XED.  
e.g. cars and petrol



**Substitutes:** substitutes are in competitive demand and have a +ve XED.  
e.g. cars and trains

-1	0	1
Strong Complements	Weak Complements	Weak Substitutes
	Unrelated Goods	Strong Substitutes