Positive Statenent : Can be tested against the facts
Normative Statement: An Opinion
Basic Economic Problem : Unlimited wants and limited or scarce resources Therefore people have trade offs or choices to make
The key economic decisions are: what to produce, how to produce and who is to benefit from the goods and services produced.

Opportunity Cost

- Measures the cost of any choice in terms of the next best alternative foregone

1) Work – Leisure choices: The opportunity cost of deciding not to work an extra ten hours a week is the lost wages foregone
2) Government Spending choices: The opportunity cost of the government spending £10 billion on investment in the NHS might be that £10 billion less is available for spending on Education.
3) Use of scarce farming land: The opportunity cost of using farmland to grow wheat for bio-fuel and not food means there is less wheat available for food production causing food prices to rise.

Factors of Production

Factor	Description	Reward/Incentive
Capital	Physical: goods which can be used in the production process Fixed: Machines; buildings Working: finished or semi-finished consumer goods	Interest from the investment
Entrepreneurship	Managerial ability. The entrepreneur is someone who takes risks, innovates, and uses the factors of production. Resources are drawn together into the production process.	Profit- an incentive to take risks
Land	Natural resources such as oil, coal, wheat, water. It can also be the physical space for fixed capital.	Rent
Labour	Human capital, which is the workforce of the economy.	Wages

Elasticity is a measure of the extent to which quantity demanded responds to a change in price.

E.g. if you increase the price of car by 10% how much will the demand decrease by?

Formula : $\frac{\%\text{ change in Quantity Demanded}}{\%\text{ change in Price}}$

★ Remember to Q before you P!
Ignore the Minus sign!

PED	TYPE	MEANING	Firm's behaviour
0	Perfectly Inelastic	Demand doesn't change when price changes. Consumers buy the same quantity regardless of changes in price. Petrol on a motorway	Firms can charge excessive prices to maximise revenue
0 – 1	Inelastic	Demand is LESS responsive to a change in price. Tends to be necessities – Milk/Bread	Firms should raise prices to increase total revenue
1	Unitary	Equal response of demand to a change in price. A 10% fall in price will cause demand to rise by 10%	Firms revenue is unchanged if they change prices up or down
> 1	Elastic	Demand is MORE responsive to a change in price. Tends to be normal goods or luxuries	Firms should reduce prices to increase total revenue
∞	Perfectly Elastic	Consumers are only prepared to pay one price for the good	Firms DO NOT change prices

Yesterday, the price of envelopes was £3 a box, and Julie was willing to buy 10 boxes.

Today, the price has gone up to £3.75 a box, and Julie is now willing to buy 8 boxes.

Is Julie's demand for envelopes elastic or inelastic?

Step 1 – Work out % change in Quantity Demanded

- Difference = 8 – 10 = -2
- Divide answer (-2) by original amount (+10)
- Multiply by 100
- = -20%

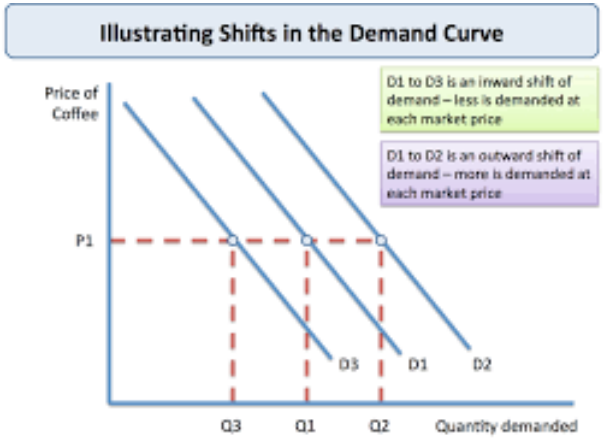
Step 2 – Work out % change in Price

- Difference = £3.75 - £3.00 = +£0.75
- Divide answer (£0.75) by original amount (£3.00)
- Multiply by 100
- = +25%

Step 3 – Use the answers to step 1 & 2 in the formula

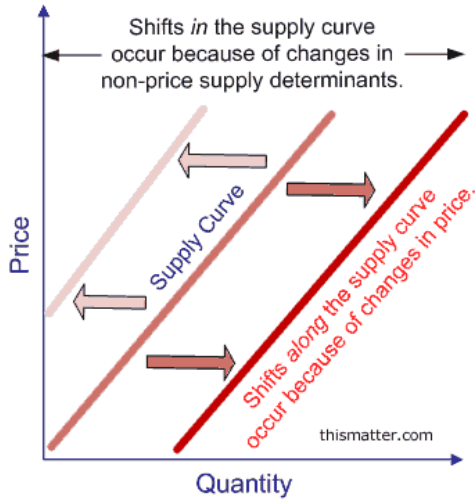
- Divide the answer to step 1 (-20%) by the answer to step 2 (+25%)
- Work out the answer – it will ALWAYS be a negative answer
- Ignoring the negative sign look at the **number only**
- Use the table to the left to interpret the result
- Is the answer Elastic, Inelastic or Unitary Elasticity?
- What does that mean?

Law of Demand: As the Price increases, demand decreases. Price and quantity demanded are inversely related
Law of Supply: As the price increases, supply increases. This is because higher prices signal higher profits.
Effective Demand: The ability to purchase what goods you would like to buy
Joint Demand – where two goods are demanded together – complementary goods like Cars and Petrol
Joint Supply – two goods are supplied together. A reduction in supply of one reduced the supply of the other – beef and leather
Normal Good – as income increases, demand increases. E.g. taking a taxi rather than the bus
Inferior Good – as income increases, demand decreases. E.g. Choosing own brand food in a supermarket
Composite Demand – where a good is demanded for more than one use. E.g. Oil
Equilibrium – where price has no tendency to change
Derived Demand: Where the demand for one good comes from the demand for another – petrol and cars



Factors that shift the demand curve

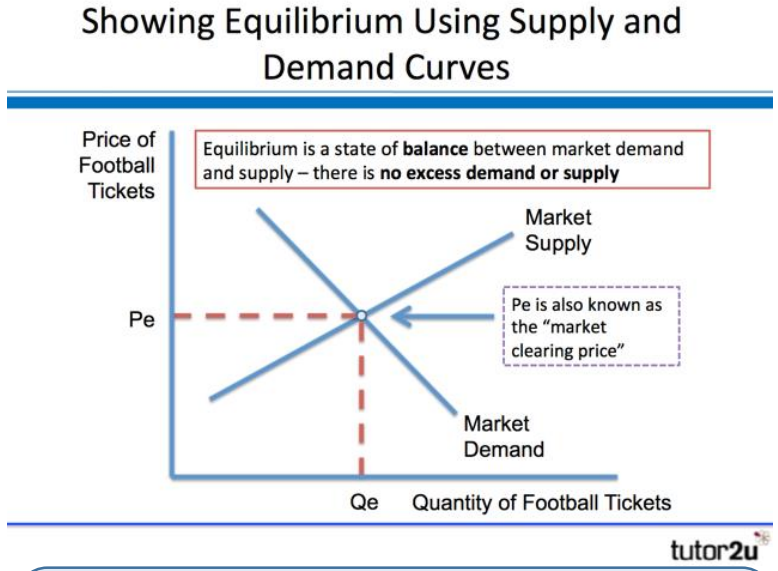
Population
Advertising
Substitutes
Income (Disposable)
Fashion and Taste
Income tax
Complements



Factors that shift the supply curve

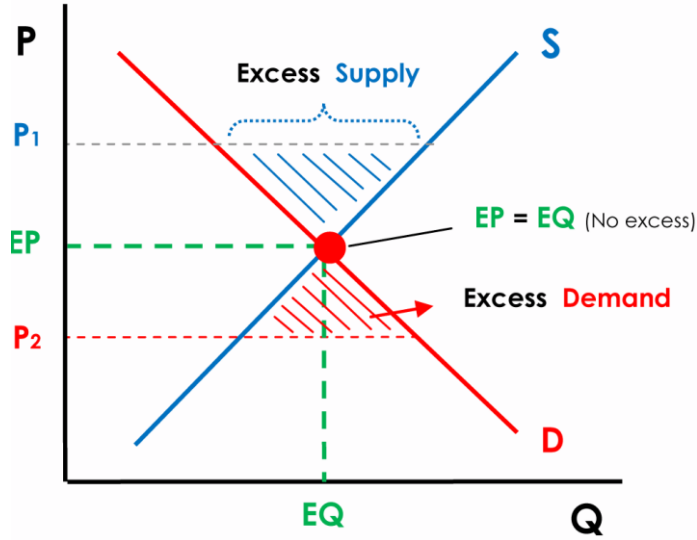
Productivity
Indirect Taxes
Number of Firms
Technology
Subsidies
Weather
Costs of Production

EXAM TIP: Examiners test whether you can show changes in markets and effects on other markets and show changes to price and quantity demanded or supplied. This should be on a diagram TOGETHER with a written analysis



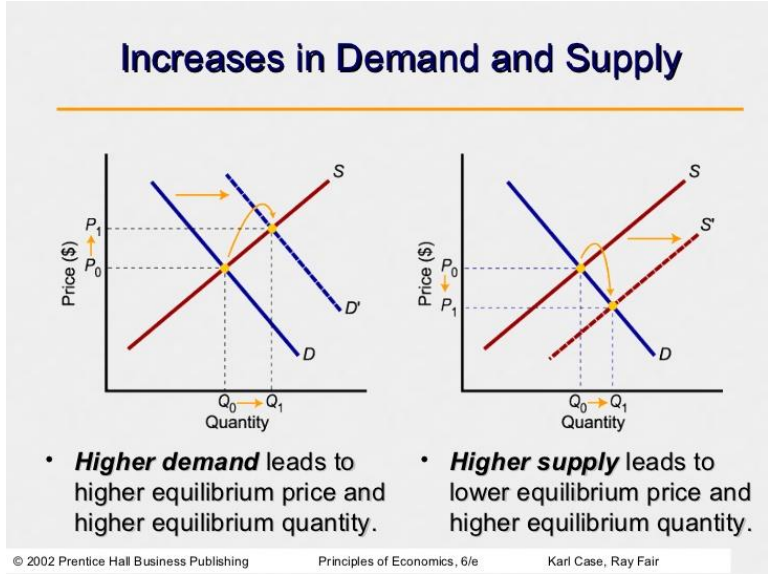
Equilibrium

- Ideal state of every market
- No excess stock left over
- Everyone who wants to buy the good can
- Most efficient use of resources



Excess Supply/Demand

- If the price is too high there is excess supply
- This signals to firms to reduce prices
- If the price is too low there is excess demand
- This signals to firms to raise prices so consumers ration demand



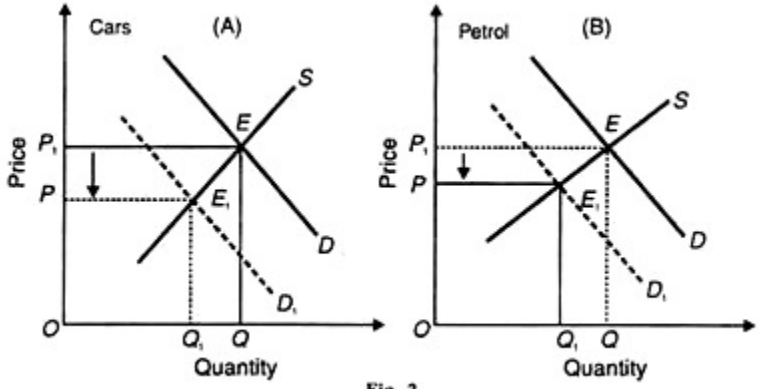


Diagram for Joint Demand

- If the demand for cars increases – diagram on the left
- Then the demand for petrol shifts right – diagram on the right
- In both markets the result is an increase in quantity and price

Impact of Elasticity on Producers

The implications of price elasticity of demand for producers

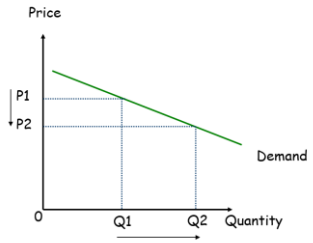
If a firm knows that the PED for its good is elastic, it should reduce the price of its good in order to increase total revenue. As a consequence of a small reduction in price, quantity demanded will rise significantly, thus increasing total revenue.

As previously discussed, the revenue a firm earns from selling its good is shown by the area under the demand curve. Therefore, if a firm knows that the PED for its good is inelastic, it should increase the price of its good in order to increase total revenue. As a consequence of a large increase in price, quantity demanded will fall marginally, thus increasing total revenue.

Change in the market	*What happens to total revenue?*
Ped is inelastic and a firm raises its price.	*Total revenue increases*
Ped is elastic and a firm lowers its price.	*Total revenue increases*
Ped is elastic and a firm raises price.	*Total revenue decreases*
Ped is -1.5 and the firm raises price by 4%	*Total revenue decreases*
Ped is -0.4 and the firm raises price by 30%	*Total revenue increases*
Ped is -0.2 and the firm lowers price by 20%	*Total revenue decreases*
Ped is -4.0 and the firm lowers price by 15%	*Total revenue increases*

PED & Shape of the demand curve

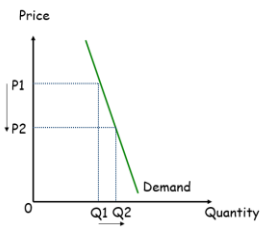
Demand Curve for Elastic Products



Products with elastic demand will be very sensitive to a change in price.

If the Wii consoles price was lowered from £150 (P1) to £125 (P2) the quantity demanded will increase by a lot.

Demand Curve for Inelastic Products



Products with inelastic demand will not be very sensitive to a change in price.

If the price for a litre of petrol was lowered from £1 (P1) to 60p (P2) the quantity demanded will increase by very little.

Perfectly Inelastic Demand (Ped = 0)

If the co-efficient of price elasticity of demand = zero, demand is perfectly inelastic i.e. demand does not vary with a change in price

- A perfectly inelastic demand curve is an extreme case for it implies that consumers are willing and able to pay any price for the product. If supply falls, equilibrium market price can rise without any contraction in the quantity demanded

Perfectly Elastic Demand (Ped = infinity)

If the co-efficient of PED = infinity, then demand is perfectly elastic – there is one price at which consumers are prepared to pay

- If demand for a product is **perfectly elastic**, a change in market supply (shown on the right as an outward shift of supply) will not lead to any change in the equilibrium price. This demand curve applies to highly **competitive markets** where no supplier has any "pricing power"

Unitary Elastic Demand (Ped = 1)

A demand curve with unitary price elasticity has a coefficient of PED equal to 1 (unity) throughout

- With a demand curve of unitary price elasticity, a change in price is met with a proportionate change in demand
- This means that total spending by consumers on the product will remain the same at each price level

Price Elasticity in Action: Uber and Surge Pricing

- Uber is a fast-growing taxi service app that now operates in more than 50 countries
- In May 2015, Uber was valued at about 41 billion U.S. dollars by venture-capital firms
- Uber engages in **surge pricing** – also known as **dynamic pricing**
- At peak times, demand is less price elastic
- When market demand out-strips available supply e.g. at peak times, then Uber raises the average fare on their app
- The aim is to encourage more drivers to take to the roads to expand supply
- The business is taking advantage of low price elasticity of demand at busy times
- Some economists have criticised this policy especially during emergencies

Surge Pricing

Peak Demand

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Factors determining PED

- Necessity or luxury?
- Consumer income
- Habits
- Availability of substitutes
- Brand loyalty
- Frequency of purchase