

Economics AS Level Notes

Economics Definition – The study of how to allocate scarce resources in the most effective way

Economic Problem Definition – How to allocate scarce resources among alternative uses

Household Definition – A group of people whose spending decisions are connected

Microeconomics Definition – The study of how households and firms make decisions in **markets**

Macroeconomics Definition – The study of issues that affect economies as a whole

The Basic Economic Problem

The fact that **resources are scarce** compared to the **unlimited wants** → Choices having to be made

Goods Definition – Tangible products, i.e. products that can be seen and touched, such as cars, food and washing machines

Services Definition – Intangible Products, i.e. products that cannot be seen or touched, such as banking, beauty therapy and insurance

Factors of Production

Factors of Production Definition – The resource inputs that are available in an economy for the production of goods and services

The Four Factors:

Land – This is a **natural resource**. Things such as oil, coal, rivers and the **land itself**.

Labour – This is the **human resource** that is available in any economy / The quantity and quality of human resources

Some economies (generally poor countries) have large populations but lack a skilled workforce and for other countries like Germany with declining populations, they depend on immigrant workers to do both skilled and unskilled jobs. **Quality of labour is essential for economic progress.**

Capital - Man-made **aids for production** / Goods used to make other goods

It is combined with Land and Labour

MERC - Machines, Equipment, Robots and Computers

Entrepreneurship - The willingness of an entrepreneur to **take risks** and **organise production**.

Entrepreneur Definition - Someone who **bears the risks of businesses** and who **organises production**.

Some Extra Definitions

The world's poorest countries tend to have few or poor **Factor Endowments** (vice versa).

Factor Endowments Definition - The stock of factors of production

Production Definition - The output of goods and services

Want Definition - Anything you would like, irrespective of whether you have the resources to purchase it

Scarcity Definition - A situation where there are insufficient resources to meet all wants

Choice Definition - The selection of appropriate alternatives

Opportunity Cost Definition - The cost of the (next) best alternative, which is forgone when a choice is made / The next best alternative forgone

Specialisation Definition - The concentration by a worker or workers, firm, region or whole economy on a narrow range of goods and services

Exchange Definition - The process by which goods and services are traded

International Specialisation

The Advantages of International Specialisation (ORE):

- An **increase** in the **output of goods and services** - In comparison to what they could achieve on their own
- A **widening** of the **range of goods** that are **available in an economy**
- Increased **exchange** between **developed** and **developing economies**

The Disadvantages of International Specialisation (WIFT):

- **Bad weather** – It can wipe out a whole years crops
- **De-industrialisation** – Due to cheap imported goods displacing workers
- **Finite Resources** – If they run out trouble will ensue, unless the income gained from it has been wisely invested in the future
- **Tastes or needs of consumers may change** – Hardship among those producing goods that are no longer wanted / needed is inevitable

Productivity Definition – Output, or production of a good or service, per worker per period of time

Production Possibility Curve

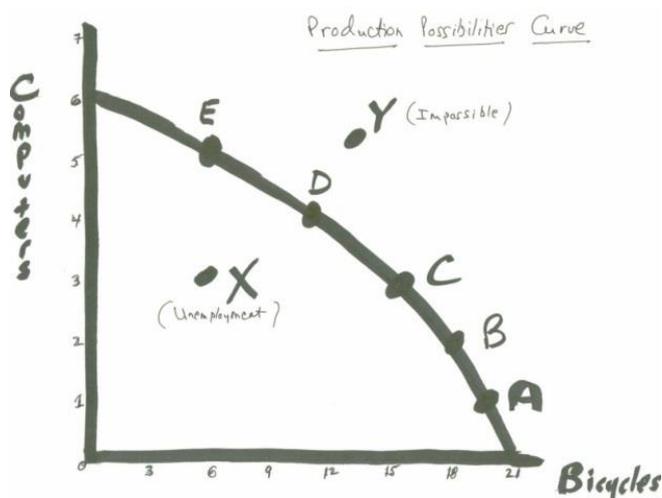
Production Possibility Curve (Firm) – This shows the maximum quantities of different combinations of output of two products, given current resources and the state of technology

Production Possibility Curve (Country) – This shows the maximum quantities of different combinations of output of capital and consumer goods, given current resources and the state of technology

Developed Economy – An economy with a high level income per head

Developing Economy - An economy with a relatively low level of income per head

PPC Graph Information:



Productive Efficiency – Any point on the line

Allocative Efficiency – Choosing between two points Eg. E → A

Unemployed Resources - Any point inside the curve Eg. X

Unobtainable – Any point outside the curve Eg. Y

Bliss Points – Where the curve **starts** or **ends** Eg. 6 Computers or 21 Bicycles

Economic Growth – Change in the productive potential of an economy

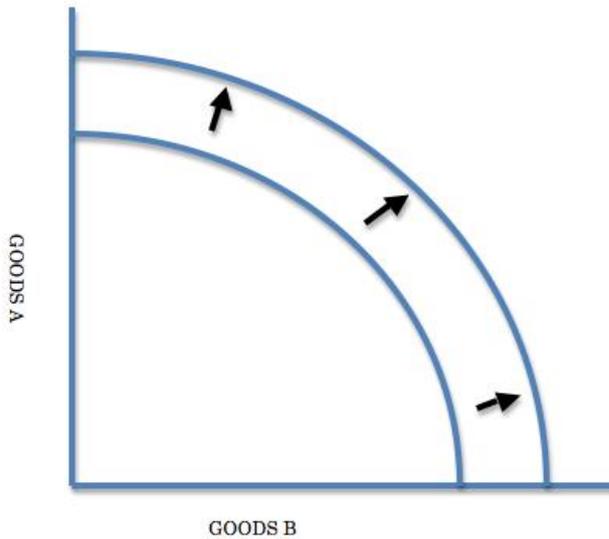
Productive Potential – The maximum output that an economy is capable of producing

PPC Shifters (Right):

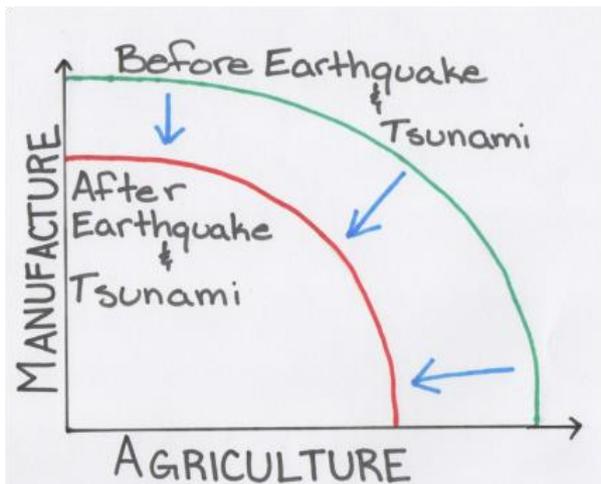
1. Changes in the quantity of resources
 - The quantity of labour may increase as a result of net immigration of people of working age, a higher proportion of women entering the labour force or a rise in the retirement age.
 - The purchase of extra capital goods, referred to as net investment, increases the quantity of capital goods causing the PPC to increase (shift to the right).
 - The quantity of enterprise may be increased by a reduction in rules and regulations placed on firms, privatisations and government incentives to start up new businesses
2. Changes in the quality of resources
 - Improvements in education and training will improve the quality of labour and raise productivity causing the PPC to increase (shift to the right)
 - The quality of capital goods is raised by advances in technology causing the PPC to shift right.
 - The quality of enterprise may be raised by management training and improved education

NOTE – The fact that the line isn't straight for any of the diagrams is because they are imperfect substitutes

PPC Shifter Right (Graph):

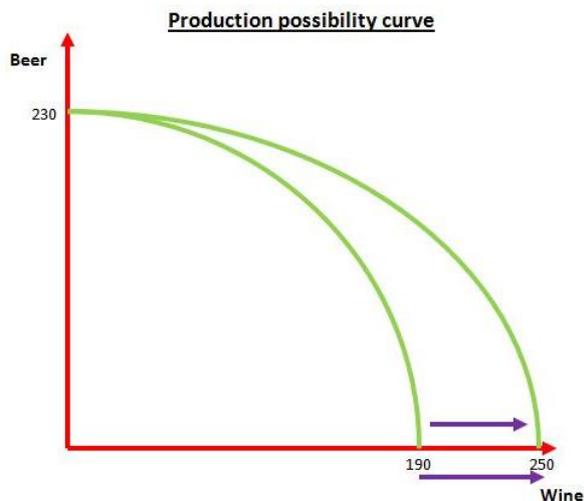


PPC Shifters (Left):



- **Natural Disaster** (Less resources → Less of each product can be produced)

PPC Stretches:



- **More resources / Capital** (More of one product can be produced) Eg. Wine
- **Advances in technology** (More of one product can be produced) Eg. Wine

Economics Systems and The Role Of The Market

Economic System – The way in which production is organised in a country or group of countries

An **economic system** - The term used to describe the means by which a country's people, organisations and government make decisions with respect to(**WHW**):

- **What** goods and services are to be produced
- **How** these goods and services are produced
- **Who** should receive these goods and services

Market Economy – An economic system whereby resources are allocated through the market forces of demand and supply

Price System – A method of allocating resources by the free movement of prices

Command Economy – An economic system in which most resources are state owned and also allocated centrally

Mixed Economy – An economic system in which resources are allocated through a mixture of the market and direct public sector involvement

The advantages of a free market economy / The disadvantages of command economies(CIGE):

- **Choice** – Firms will **produce whatever consumers are prepared to buy** and there is no restriction on what they produce in the FM. **Planners are more concerned that there are enough essentials goods to go around** rather than allocating resources efficiently between all goods
- **Innovation** – Firms will look to **produce something new in order to be competitive**. Because of property rights(intellectual property rights through patents) there are **incentives for innovation and producing better quality products**. Planners do not have this incentive, they are happy just producing essentials.
- **Higher Economic Growth Rates** – Countries with economic systems closer to the free market tend to have higher economic growth.
- **Efficiency** – Free markets are **very competitive**. Most of their industries are assumed to be perfectly competitive and so **allocative** and **productive efficiency** occur. This is because **decisions about what to produce are made by the consumers** rather than by planners

The advantages of command economy / The disadvantages of free market economies(PmdIE):

- **Public, Merit and Demerit Goods** - **Public goods cannot be provided in the private sector**. Merit goods are likely to be under consumed in the free market and demerit goods over consumed. In a command economy **demerit goods are likely to be banned or heavily taxed** and **public goods** and **merit goods will be provided at high levels**.
- **Unequal Distribution of Income** – Benefits will be low and health service and school unaffordable for a lot. Those who are poor are likely to fall to destitution. A command economy may not allow the successful to make millions but it will at least try to make sure the poor are not left to destitution so the economy is fairer
- **Environment** – Free market economies are likely to produce more pollution. **Command economies** will attempt to make sure that **the level of output is the socially optimal level of output** through things such as taxes and pollution permits although pollution does tend to still be high

Specialisation / Division of Labour

Division of Labour Definition – The **specialisation of labour** where the **production process** is broken down into **separate tasks**

NOTE – Some extra explanation of each of the mark scheme points will most likely be necessary

The Advantages of Specialisation / Division of Labour to Firm (From Mark Scheme):

- Increased output
 - With improvement in efficiency and use of machinery output is increased
- More innovation
- Improved quality
- Increased productivity
 - Specialised machinery can be used which further increases the productivity.
- Developing and maintaining a brand image
- Economies of scale

The Disadvantages of Specialisation / Division of Labour to Firm (From Mark Scheme):

- Reliance on a narrow range of products
- Specialist factor inputs are more expensive per unit
- Limited market size
- Reliance on one specialist resources / suppliers or factor immobility
- Reduced flexibility
- Boredom of workers / demotivation

Extra 

The Advantages of Specialisation / Division of Labour – TO THE FIRM:

- Specialist workers become quicker at producing goods
 - Production becomes cheaper per good because of this
 - Production levels are increased
- Each worker can concentrate on what they are good at and build up their expertise

The Advantages of Specialisation / Division of Labour – TO THE WORKER:

- Increased productivity
- Higher pay for specialised work
 - Improved skills at that job

The Disadvantages of Specialisation / Division of Labour – TO THE FIRM:

- Greater cost of training workers
- Quality of products may suffer if workers become bored by the lack of variety in their jobs

The Disadvantages of Specialisation / Division of Labour – TO THE WORKER:

- Boredom as they do the same job
- Their quality and skills may suffer
- May eventually be replaced by machinery

Competitive Markets and How They Work

Market – Where or when buyers and sellers meet to trade or exchange products

Sub-Market – A recognised or distinguishable part of a market > Also known as a market segment

Ceteris Paribus – Assuming other variables remain unchanged

Disposable Income – Income after taxes on income have been deducted and state benefits have been added

Real Disposable Income – Income after taxes on income have been deducted and state benefits have been added and the result has been adjusted to take into account changes

Normal Goods – Goods for which an increase in income leads to an increase in demand

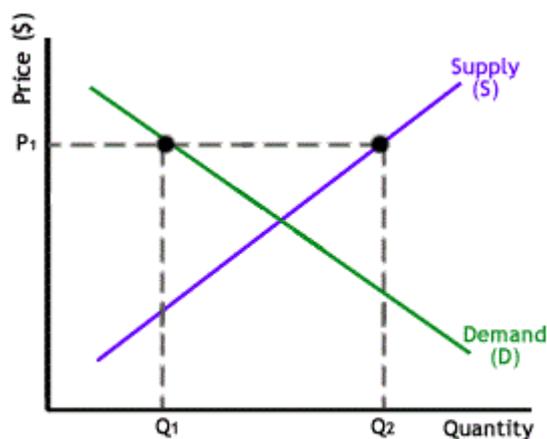
Inferior Goods – Goods for which an increase in income leads to a fall in demand

Substitutes – Competing Goods

Complements – Goods for which there is joint demand

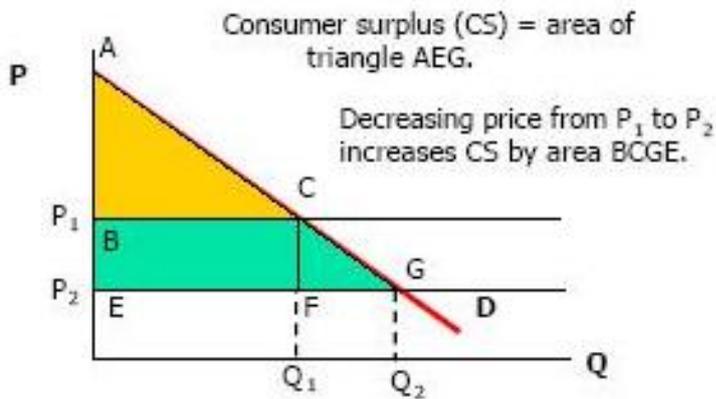
Efficiency - Where the best use of resources is made for the benefit of consumers

Disequilibrium Graph:

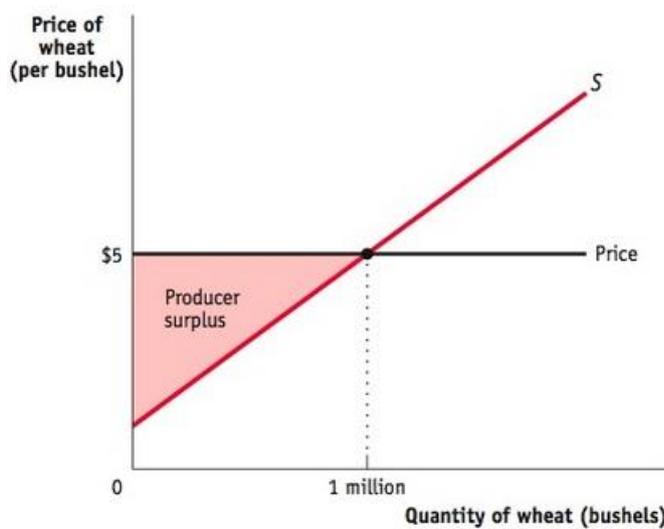


Consumer Surplus – The extra amount that a consumer is willing to pay for a product above the price that is actually paid

A Price Decrease Raises Consumer Surplus



Producer Surplus – The difference between the price a producer is willing to accept and what is actually paid



How a Consumer / Producer Surplus Changes (Mark Scheme) (4 Marks):

- Correctly labelled, **Downward sloping demand curve** / **Upward sloping supply curve**
- Original **Consumer** / **Producer** surplus identified
- **Consumer** / **Producer** surplus will **Increase** / **Decrease**
- Area of **Consumer** / **Producer** surplus **Increase** / **Decrease** indicated by letters or labels

Comment on size of change of Consumer / Producer surplus:

- Change in price
- Elasticity of Curve

Demand

Demand – The quantity of a product that consumers are able and willing to purchase at various prices over a period of time

Notional Demand – The desire for a product

Effective Demand – The willingness and ability to buy a product

Demand Curve - This shows the relationship between the quantity demanded and the price of a product

Demand Schedule – The data that is used to draw the demand curve for a product

Movement Along The Demand Curve – This is in response to a change in the price of a product

Change In Demand – This is where a change in a non-price leads to an increase or decrease in demand for a product

ILAPTIMERS(Demand shifters / Determinants):

I – Income – Increase in Income → Increase in D

L – Legislation – Eg. Motorcycle Helmet Law Introduced → Increase in D for Motorcycle Helmets

A – Advertising – Increase in Advertising stimulates demand → Increase in D

P – Population – Increase in Population → Increase in D

T – Tastes – Consumer Taste changes to 3D TVs → Increase In D for TVs

I – Interest Rates – Decrease Interest Rates → Increase in D

M – Market Size – Increase in Market Size → Increase in D (**Not 100% sure about this one**)

E – Expectations of Future Prices – Price expected to increase → D increases now

R – Related Goods – Increase in price of Substitutes → Increase in D for original product

S – Seasons – Christmas is coming → Increase in D for Santa Costumes

Income Substitution Effect For A Price Increase – Why The Demand Curve Is Downwards Sloping:

- If the price of a good **increases**, then there will be **two effects**:
 1. **Substitution Effect**
 - The good is **relatively more expensive** than **alternative goods** and people can **switch to other goods**.
 2. **Income Effect**
 - The increase in price decreases one's purchasing power and so one's **real disposable income decreases**. This **lower income is likely to reduce demand** for normal goods but increase demand for inferior ones.

Supply

Supply – The quantity of a product that producers are willing and able to provide at different market prices over a period of time

Profit – The difference between the total revenue (sales revenue) of a producer and total cost

Supply Curve – This shows the relationship between the quantity supplied and the price of a product

Supply Schedule – The data used to draw the supply curve of a product

Change In Supply – Occurs when a change in a non-price influence leads to an increase or decrease in the willingness of a producer to supply a product

PRATNESTS(Supply shifters / Determinants):

P – Productivity – Increase in productivity → Increased S

R – Resource Cost – Decrease in Resource Cost → Increase in S

A – Alternative Output – Alternative product selling for higher price → Increase S of alternative

T – Technology – Better / More Technology → Increased productivity → Increase in S

N – Number Of Suppliers – Increased Number Of Suppliers → Increase in S

E – Expectations of Future Prices – Price expected to rise → Increase in S later

S – Subsidies – Increase in amount of Subsidy → Decrease in Cost of Production → Increase in S

T – Taxes – Taxes Increased → Increase in Cost of Production → D increases now

S – Seasons – Winter is coming → Decrease in S of crops

Price – The amount of money that is paid for a given amount of a particular good or service

Equilibrium Price – The price where demand and supply are equal

Clearing Price – Same as equilibrium price

Disequilibrium – Any position in the market where demand and supply are not equal

Surplus – An excess of supply over demand

Shortage – An excess of demand over supply

Comment on how overall impact of shift in D or S depends on (Generally worth 2 marks):

- **Size of Shift/s (1 mark) + elaborated with reference to effect on price or quantity (1 mark)**
- **Elasticity of curve not shifting or elasticity of both curves (1 mark) + elaborated with reference to effect on price or quantity (1 mark)**
- **There are other factors that affect demand and/ or supply (up to 2 marks)**

Elasticity

Elasticity:

- Is a **numerical estimate**
- Measures the **response** to a **change in price** or to a **change in any other factors** that determine the demand or supply of a product

Elasticity Definition – The **extent** to which buyers and sellers **respond to a change** in market conditions

Price Elasticity (PED)

Price Elastic Definition – Where the percentage change in the quantity demanded is sensitive to a change in price of the product {**Greater than 1 or Less than -1**} / **Further away from 0**

Price Inelastic Definition – Where the percentage change in the quantity demanded is insensitive to a change in price of the product {**Less than 1 or Greater than -1**} / **Closer to 0**

Price Unit Elastic Definition - Where the percentage change in the quantity demanded is equal to a change in price of the product {**Equal to 1**}

Price Elasticity Of Demand (PED) Definition – The responsiveness of the quantity demanded to a change in the price of the product

Price Elasticity Of Demand (PED) Formulae

$$\begin{aligned} \text{Elasticity} &= \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price}} \\ &= \frac{\frac{(\text{new quantity} - \text{old quantity})}{\text{old quantity}} \times 100}{\frac{(\text{new price} - \text{old price})}{\text{old price}} \times 100} \end{aligned}$$

Determinants Of The Price Elasticity Of Demand (SHITBND):

- The availability and closeness of **substitutes** – the **more substitutes**, the more price **elastic** demand is
- **Habit Forming** – Habit forming goods tend to have very price inelastic demands
- The relative expense of the product with respect to **income** – Increased price elasticity with relatively expensive goods
- **Time** (Short Term / Long Term) – Consumers are less likely to change spending habits in the short term but in the long term will become **more aware of substitutes** increasing price elasticity. Also products that **don't warrant instant consumption** and take up a **large proportion of income** (cars, bathrooms etc...) are usually more price elastic.
- **Brand Loyalty** – Products with strong brands tend to have more price inelastic demands
- **Necessities** – Necessities tend to have very price inelastic demands
- **Durability** – Goods that are expected to last a long time tend to be more price elastic as the purchase can be delayed whereas milk will run out quickly and need to be repurchased even if its price rises

Income Elasticity Of Demand (YED)

Income Elasticity Of Demand Definition - The responsiveness of demand to a change in income

Income Elastic Definition – Goods for which a change in income produces a greater proportionate change in demand

Income Inelastic Definition – Goods for which a change in income produces a less than proportionate change in demand

Normal Good Definition – Goods for which an increase in income leads to an increase in demand / Goods with a positive income elasticity of demand $YED > 0$

Normal Necessity – $YED = 0.1 - 0.4$

Pure Normal – $YED = 0.6 - 0.9$

Superior Good Definition – Goods for which an increase in income leads to a relatively large increase in demand / Goods with a relatively large positive income elasticity of demand $YED > 1$

Inferior Good Definition – Goods for which an increase in income leads to a fall in demand / Goods with a negative income elasticity of demand $YED < 0$

Giffen Good – $YED < -2$

Income Elasticity Of Demand (YED) Formulae

$$\text{income elasticity of demand} = \frac{\text{percentage change in quantity demanded}}{\text{percentage change in income}}$$

Comment on Income Elasticity of Demand:

1. **YED Coefficient** – What type of good is it? + Its Elasticity
2. **10% Example** – $YED = 1.5$ Income goes up 10% → Demand goes up 15%
3. **Does the YED correspond with economic theory?** e.g. A TV can't be an inferior good
4. **These are estimates + They may also be unreliable**
5. **These estimates can change over time**
6. **Assumes ceteris paribus which may not apply (Usually accepted)**

Cross Elasticity Of Demand (XED)

Cross Elasticity Of Demand (XED) Definition – The responsiveness of demand for one product in relation to a change in the price of another product

A **positive** XED indicates **two substitutes PS+ --- Positive Substitute**

A **negative** XED indicates **two complements CNN --- Complement Negative Number**

A **zero** XED indicates **that the two products have no real relation in terms of Price affecting D**



(Zero XED would be a vertical line)

Cross Elasticity Of Demand (XED) Formulae

$$\text{cross-price elasticity of demand} = \frac{\text{percentage change in quantity demanded of good X}}{\text{percentage change in price of some other good Y}}$$

Comment on Cross Elasticity of Demand:

1. **XED Coefficient** – Substitute or Complement + Its Elasticity
2. **10% Example** – **XED = 1.5** Product X goes up 10% → Product Y goes up 15%
3. **Does the XED correspond with economic theory? PS and Xbox aren't complements**
4. **These are estimates + They may also be unreliable**
5. **These estimates can change over time**
6. **Assumes ceteris paribus which may not apply (Usually accepted)**

Price Elasticity Of Supply (PES)

Price Elasticity Of Supply (PES) Definition – The responsiveness of the quantity supplied to a change in the price of the product

Price Elasticity Of Supply (PES) Formulae

$$E_s = \frac{\% \Delta \text{ in quantity supplied}}{\% \Delta \text{ in price}}$$

Determinants Of The Price Elasticity Of Supply (FTSCN):

- **Factor Mobility** – When **labour** is the most important factor of production, supply is **elastic** as labour is generally easy to obtain. When **capital** is the most important factor of production, supply is **inelastic** as new machinery must be installed (additionally **market conditions may change before the new machinery is installed** so resources may be wasted)
- **Time Period** – In the **short-term** supply is more **inelastic**. In the **long-term** supply is more **elastic**.
- **The Availability Of Stocks Of The Product** – For stock that can be **stored** (**Store items**) the supply is **elastic**. For stock that **cannot be stored** (**Hotel rooms and Cinema Seats**) the supply is **inelastic** as the product must be consumed on a particular day or within a certain time period
- **Existence of Spare Capacity** – Supply is more **elastic**, the **greater the spare capacity**, as it is easier to raise output if the price rises
- **Number Of Producers** - Supply will be more **price elastic** as the **more producers** there are the easier the market can respond to a change in price

Comment on Price Elasticity of Demand/Supply:

1. **PED / PES Coefficient** – Elastic or Inelastic
2. **10% Example** – **PES = 1.5** Price goes up 10% → Supply goes up 15%
3. **Does the PED / PES correspond with economic theory? e.g. PES can't be negative**
4. **These are estimates + They may also be unreliable**
5. **These estimates can change over time**
7. **Other factors can affect Supply / Demand**
8. **Assumes ceteris paribus which may not apply (Usually accepted)**

How information on elasticity can be collected:

- Sample surveys
- Past records from within a company
- Competitor analysis

Both comments (7 + 8) are very similar and so you may only get one mark for mentioning both.

NOTE* – For things such as commodities, oil or housing PES is generally inelastic. This is because it takes a long time for quantity supplied to respond to a change in price, due to crops taking long to grow, oil taking time to mine and houses taking lots of time to be built

Market Failure and Government Intervention

Market Failure – When the free market **fails to achieve allocative efficiency**

Allocative Efficiency – When resources are used to **produce the goods and services** that consumers want and in such a way that **consumer welfare is maximised**

Productive Efficiency – Where production takes place using the **least amount** of scarce resources

Economic Efficiency – Where both **allocative** and **productive efficiency** are achieved

Inefficiency – Any situation where **economic efficiency** is not achieved

Free Market Mechanism – The system by which the market forces of demand and supply determine prices and the decisions made by consumers and firms

Regulations – Consists of laws/ restrictions imposed by the government

Government Failure – Government failure is a situation where government intervention in the economy to correct a market failure creates inefficiency and leads to a misallocation of scarce resources

Information Failure

Information Failure – A **lack of information** resulting in consumers and producers making decisions that do **not maximise welfare**

Asymmetric Information – Information not equally shared between two parties

Examples of Information Failure:

- When consumers are **not aware of the benefits** or **the harmful effects** of consuming a particular product
- When advertising **over stimulates demand** → **Overconsumption**
- **Inaccurate** or **misleading claims** on product packaging

Examples of Asymmetric Failure Information Failure:

- **Health Care** – You are forced to rely on the doctor's experience and competence. They have more knowledge than you
- **Environment** – We know less about our negative effects on the environment than environmental experts.
- **Consumer Purchases** – Eg. Mobile phones – The seller is likely on commission and has more knowledge than the buyer leading them to make a bad choice potentially.
- **Insurance** – You know more about your circumstances than the company selling you a policy. They are relying on your honesty and integrity.

NOTE - Information failure distorts how the market allocates resources. It causes the market to fail.

Externalities, Social Costs and Benefits

Externality – A cost imposed or benefit felt by a third party (a party not involved in the economic decision)

Private Costs – The costs incurred by those taking a particular action

Private Benefits – The benefits accruing to those taking a particular action

External Costs – The costs that are the consequence of externalities to third parties

External Benefits – The benefits that accrue as a consequence of externalities to third parties

Social Costs – Private Costs + External Costs

Social Benefits – Private Benefits + External Benefits

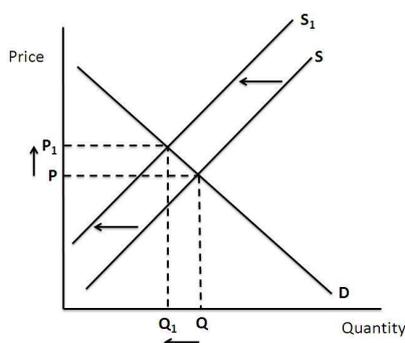
Negative Externality – This exists where the social cost of an activity is greater than the private cost

Positive Externality – This exists where the social benefit of an activity is greater than the private benefit

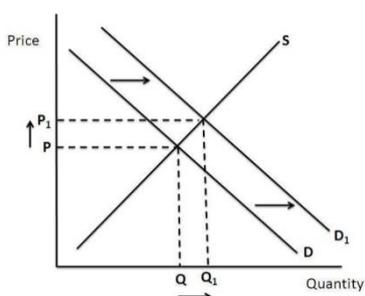
Positive Externalities:

- **Inoculation / Medicine** – External Benefit = Less likely for other people to catch the disease
- **Cross rail** – External Benefit – Reduced road traffic congestion
- **Education and Training** – External Benefits – Better qualified employees for firms and enhanced longer-term for the economy as a whole

Negative Externality Graph:

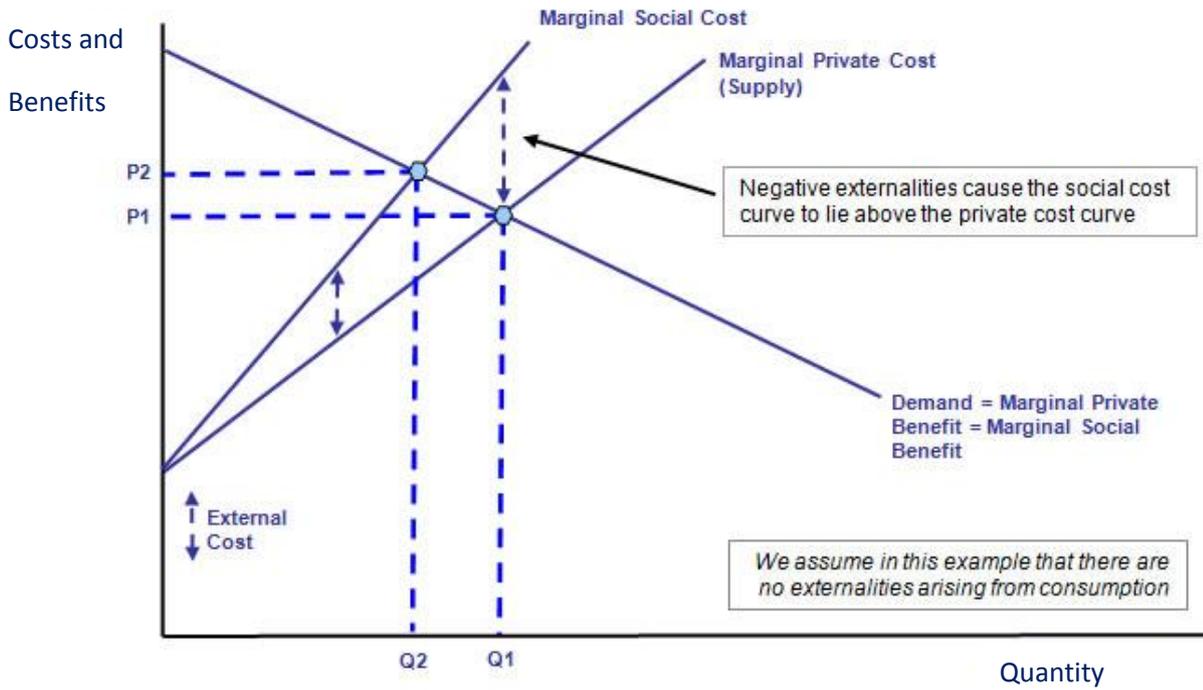


Positive Externality Graph:

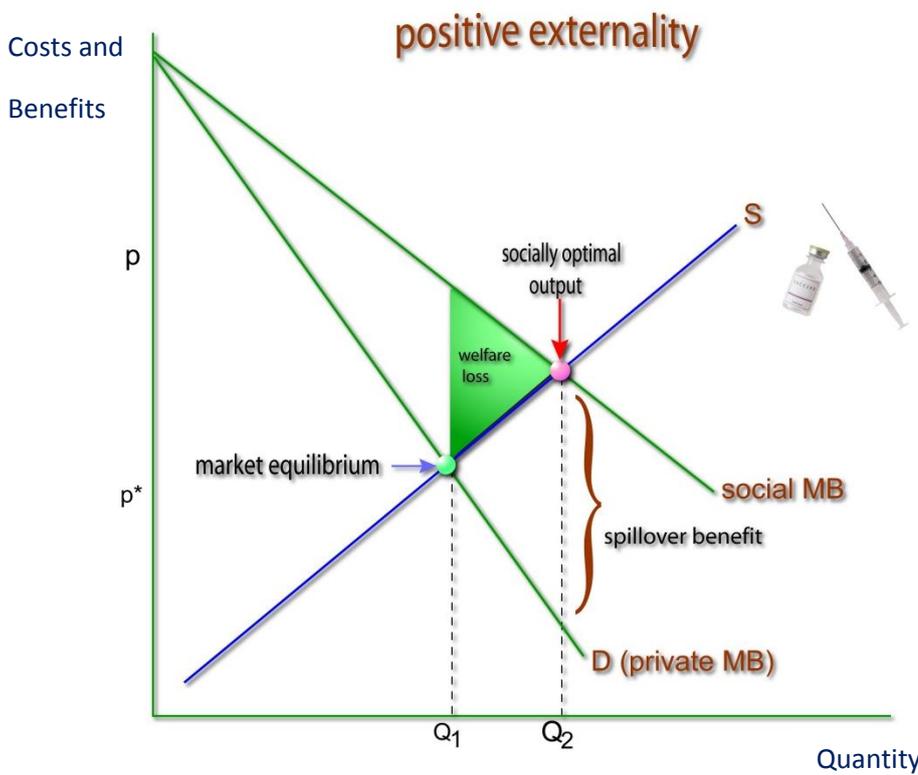


Normal Supply and Demand diagram can be used to show externalities but you have to say that Q₁ may not be the exact social optimum but that it is hopefully (for the government's sake) closer.

Negative Externality Graph (Costs and Benefits Version):



Positive Externality Graph (Costs and Benefits Version):



Merit Good – These have more private benefits than their consumers actually realise

Demerit Goods – Their consumption is more harmful than is actually realised

Public Goods

Public Goods – Goods that are collectively consumed and have the characteristics of non-excludability and non-rivalry

Non-Excludability – Situation existing where individual consumers cannot be excluded from consumption

Non-Rejectable – Situation existing where individual consumers cannot reject consumption

Non-Rivalry – Situation existing where consumption by one person does not affect the consumption of all others

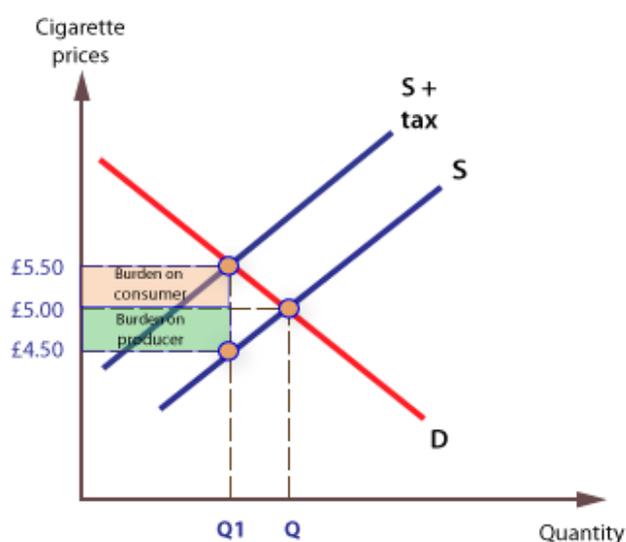
Free Riders – Someone who directly benefits from the consumption of a public good but who does not contribute towards its provision

Quasi-Public Goods – Goods having some but not all of the characteristics of a public good

Direct Tax – One that taxes the income of people and firms and that cannot be avoided

Indirect Tax – A tax levied on goods and services

Indirect Tax Graph:

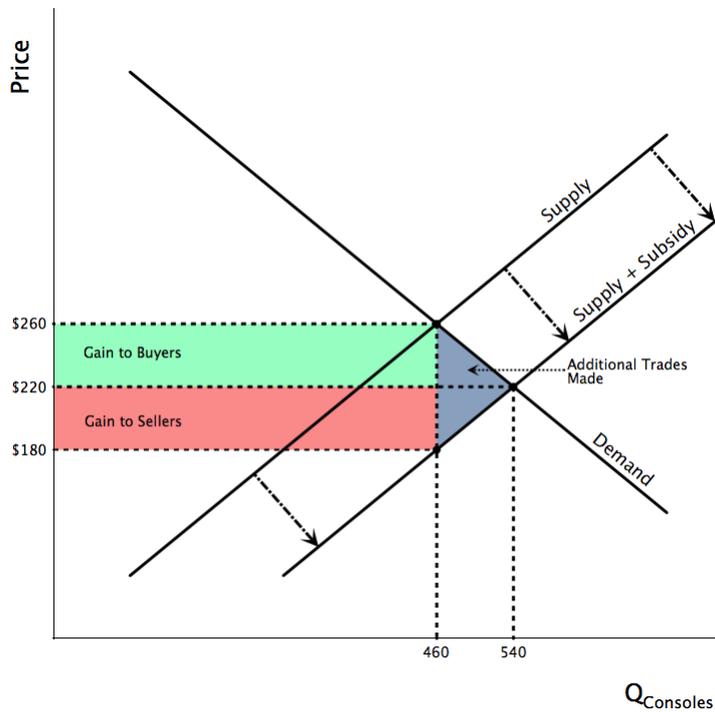


Polluter Pays Principle – Any measure, such as a green tax, whereby the polluter pays explicitly for the pollution caused

Polluter Pays Principle Problems:

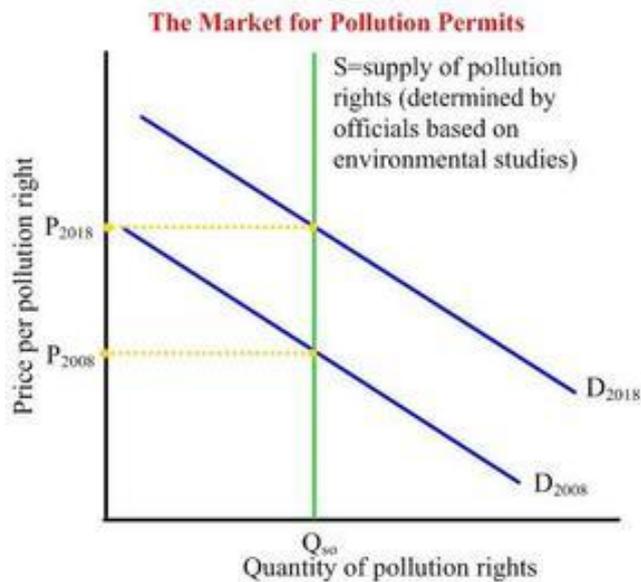
- **Amount of Tax** – Virtually impossible to estimate the cost of the negative externality
- **Producers not paying full amount of tax** - Some of it often gets pushed onto the consumer
- **PED is often Inelastic** – Consumption not reduced by as much as intended so production is higher than intended
- **Better quality information for consumers** – May lead to consumption being decreased too much

Subsidy – A payment, usually from a governing body, to encourage production or consumption



Tradable Pollution Permits – A permit that allows the owner to emit a certain amount of pollution and that, if unused or only partially used, can be sold to another polluter

Pollution Permit Graph:



18 Markers

Discuss whether indirect taxation is the most effective policy measure to correct the market failure arising from the negative externalities of production (Mark Scheme + Model Answer):

Level 1 KNOWLEDGE (1–4 marks)

- Example(s) of indirect tax, e.g. VAT
- Indirect tax raises the cost of production
- Market failure is where the free market fails to achieve allocative efficiency
- Non-applied market failure diagram (Will be included as part of analysis)
- Definition of negative externalities / indirect taxation

Level 2 APPLICATION (5–8 marks)

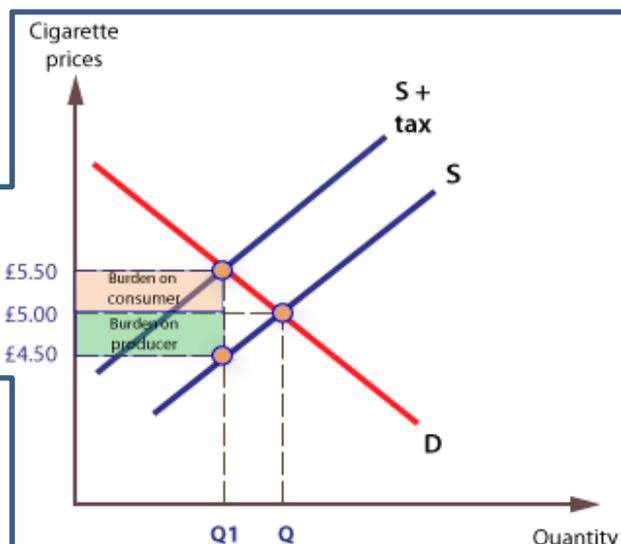
Candidate must show application either to negative externalities of production, e.g. pollution, global warming, or to an indirect tax and its effect on the market

- Indirect Tax will decrease supply
- Indirect taxation will shift supply to the left
- Indirect tax will raise the price of products

Level 3 Band 1 ANALYSIS (9-10 marks)

- Supply curve shifts to the left because indirect taxes effectively increase producer costs
- Price rises from P to P1
- Quantity falls from Q to Q1

You don't actually have to show the burden on consumer or the burden on the producer, it is your choice but I just wouldn't bother unless the question is suggesting that it should be mentioned. + **Ignore Cigarette prices, just write Price instead.** Also you can just write S_1 instead of $S + tax$



Level 3 Band 2 ANALYSIS (11-12 marks)

- The market becomes more allocatively efficient
- This solves / reduces overproduction
- An explanation of how negative externalities are reduced
- Connecting leftwards shift of supply with correcting “negative externalities of production” – how this works

Level 4 EVALUATION (13-15 marks)

If included, effectiveness of alternative solutions must be compared that of indirect tax:

- Outright ban
- Output restrictions
- Pollution permits

Do not credit information provision as this relates to a leftward shift in demand

Case for an indirect tax could include:

- Reduces the volume of output and so reduces negative externalities
- Deters production by raising costs of production
- It will lead to a shift to the left of supply meaning that less is supplied and consumed at a higher price
- It has a greater effect if the PED is elastic

Case against an indirect tax could include:

- It would make Chinese firms less internationally competitive
- The correct value of the tax is difficult to determine → Government failure
- Costs of policing / collecting
- Deters consumption
- May be absorbed by the firm rather than causing output to reduce
- Will not reduce output by much if PED is inelastic
- May reduce positive externalities of production and consumption

EE ANSWER TO QUESTION + CONCLUSION (16 –18 marks)

- Stated or elaborated judgement

Model Answer for “Discuss whether indirect taxation is the most effective policy measure to correct the market failure arising from the negative externalities of production”

I only know how to do 18 markers so well, so I have just highlighted all the areas I think you would get marks for. Additionally it is important to note that this 18 marker could be improved in some parts but I think this would be sufficient for getting 17 - 18 marks.

Key:

Red = Knowledge – Level 1

Orange = Application – Level 2

Purple = Analysis – Level 3

Blue = Evaluation – Level 4

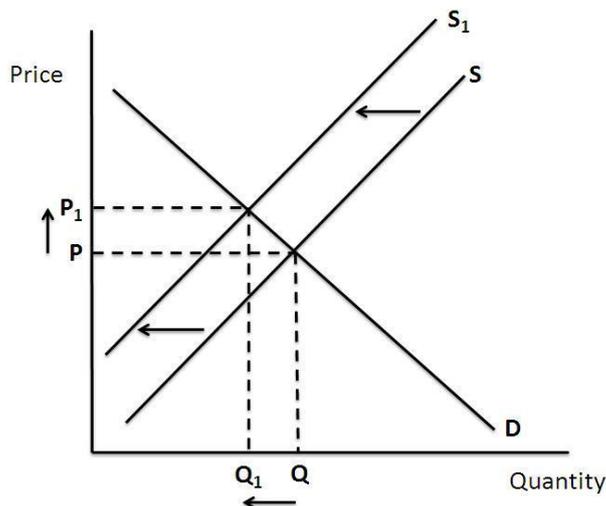
Green = Stated Judgement + Conclusion - End

Just state all the definitions relevant to the question asked.

Indirect taxes are taxes levied on goods and services. Market failure is when the free market fails to achieve allocative efficiency. Negative externalities are costs imposed on third parties (a party not involved in the economic decision).

Linking at least some of the application part of the essay to the case study is important.

Production in country such as China for example has increased greatly over the years as it is a BRIC, one that is developing very quickly, causing production to also increase at a very high rate as well. The problem is that the increase in production can lead to pollution which is a negative externality. The pollution arising from production is affecting third parties (parties not involved in the economic decision) due to things such as CO₂ emissions leading to global warming, fumes worsening people’s asthmas and firms dumping waste materials in rivers. This means that the cost of production is too cheap as it does not reflect the true social cost. This leads to levels of production being too high which means that too many scarce resources are being allocated towards production causing the market to be allocatively inefficient.



You can do the costs benefits graph here if you want to but you don’t get any extra marks for it and are more likely to mess it up as you may analyse the graph well but you may not be hitting the specific points required on the mark scheme. Ultimately I would say it’s not worth the hassle but it is vital that you draw a graph unless the question is such that it would be too difficult to attempt to graph anything.

Indirect taxation effectively increases the cost of production. This means producers can supply less at any given price. This causes supply to shift left from $S \rightarrow S_1$, price to increase from $P \rightarrow P_1$ and quantity to decrease from $Q \rightarrow Q_1$ creating a new market equilibrium. This should solve the overproduction that was leading to negative externalities further causing the market to move closer to a point of allocative efficiency, thus increasing welfare.

You have to mention basically every specific point you can for this that you think will be on the mark scheme otherwise you will definitely be capped. If you don’t memorise them you’ll be screwed.

In most 18 markers this would usually get you a mark but in this one it wouldn’t.

The specific points on the mark scheme are the **basic core** of what your answer needs to be but you have to expand on them and make them **developed** otherwise you may get capped.

There are cases for and against indirect taxation and there are also alternative policies to indirect taxation as well. One case for indirect taxation is that it **deters production by raising the cost of production**. This will **reduce the level of output thus reducing the amount of negative externalities** as there will be less of things such as CO₂ emissions so in this regard indirect taxation would be an effective policy.

A case against indirect taxation would be that if **PED is inelastic then it is likely we will see the producer push on more of the tax onto the consumer** as the price increase would have little effect on a consumer's decision on whether or not to buy the product. This would mean demand would not decrease as much as intended further meaning that production would be higher than intended. This leads onto another point about **whether or not the government will set the right amount of indirect tax**. The fact that it is **virtually impossible to measure negative externalities it is likely that government failure will occur**. Government failure is when government intervention to correct market failure leads to inefficiency and a misallocation of resources which would be a large negative of indirect taxation.

A **pollution permit is an example of an alternative policy that could be used**. A pollution permit is a permit that allows the owner to emit a certain amount of pollution and that, if unused or only partially used, can be sold to another polluter. This would allow the government to release an amount of permits they feel is acceptable although the issue of not being able to measure negative externalities would arise again potentially leading to government failure.

All in all I think that indirect taxation IS the most effective policy measure to correct market failure arising from the negative externalities of production.

Assuming you haven't been capped at any earlier stage in the essay then by just **basically re writing the original question and inserting a word or two** you should get the 16th mark.

I think this because **although both indirect taxation and pollution permits have the same issue such as measuring negative externalities** and the same advantage of increasing the likelihood of decreasing production leading to less negative externalities, **pollution permits are more difficult to change**. This is because if the level of pollution permits released was too high, then it will be too cheap pollute, so they would need to be taken out of circulation and it **would be more difficult and more costly to remove them from circulation** whereas with indirect taxation if the level of **indirect taxation is too high it would be far less costly to change it** and also much easier to do so as well.

The rest is just you **justifying the statement you made via a conclusion**. Whether or not you get 17 or 18 marks is most likely dependent on **how much your conclusion makes sense** / whether or not something you said in your conclusion is incorrect or not.

Discuss whether regulation is the most effective solution to the market failure arising from information failure:

Level 1 KNOWLEDGE (1–4 marks)

- Regulation consists of laws/ restrictions imposed by the government
- Market failure is where the free market fails to achieve allocative efficiency
- Information failure occurs when a lack of information results in consumers and producers making decisions that do not maximise welfare.
- Non-applied market failure diagram (**Will be included as part of analysis**)

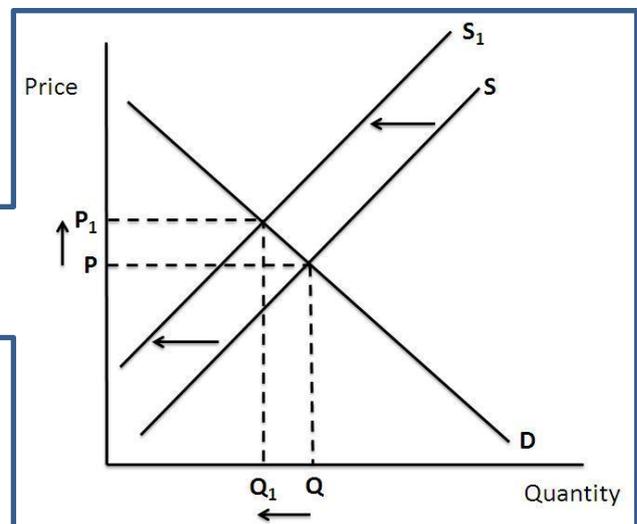
Level 2 APPLICATION (5–8 marks)

- Application of regulation to any suitable market failure (Examples from the text)
- Regulation could take the form of a ban
- Regulation could force firms to provide health warnings/ information
- Unexplained regulation diagram showing relevant shift of S or D
- Advantages or disadvantages of regulation applied to a market (where L3 B2 has not been attained).

Level 3 Band 1 ANALYSIS (9–10 marks)

- Diagram showing vertical supply curve imposed on market (to left of old equilibrium)
- Supply shifts to the left (because regulation may increase firms' costs)
- Demand shifts to the left (because regulation makes it more difficult for consumers to obtain the product)
- Price rises (from P to P1)
- Quantity falls (from Q to Q1)

You can do quite a few different diagrams (as made clear by the mark scheme) for this but this is the one I would do as it is generally more straightforward and so a bit easier to than the others in my opinion.



Level 3 Band 2 ANALYSIS (11–12 marks)

- This solves overconsumption/ reduces consumption which corrects market failure
- Moves market (closer) to allocative efficiency
- Welfare is increased

Level 4 EVALUATION (13–15 marks) Responses may include, but are not limited to:

- Regulation may be difficult and/or costly to enforce.
- Opportunity cost of enforcement.
- Black markets may develop.
- Regulation may not be set at optimal level – government failure.
- People might choose to ignore regulation/break the rules.
- Consumers may not respond to the information provided.
- Alternatives may be more/less effective than regulation – must be compared to regulation.

The above points may be credited as L2 if answer has not progressed to L3 B2.

EE ANSWER TO QUESTION + CONCLUSION (16 –18 marks)

- Stated or elaborated judgement

Discuss whether subsidising the building of affordable new houses is the most effective solution to a housing shortage:

Level 1 KNOWLEDGE (1–4 marks)

For knowledge only of a subsidy and/or the impact on consumers/producers.

- Knowledge of subsidy
- Awareness of pros and cons to subsidies not applied to specific case. In this case, housing

Level 2 APPLICATION (5–8 marks)

For an application of knowledge and understanding of subsidies.

8 marks: More than one well developed applied point applied to specific case. In this case, housing.

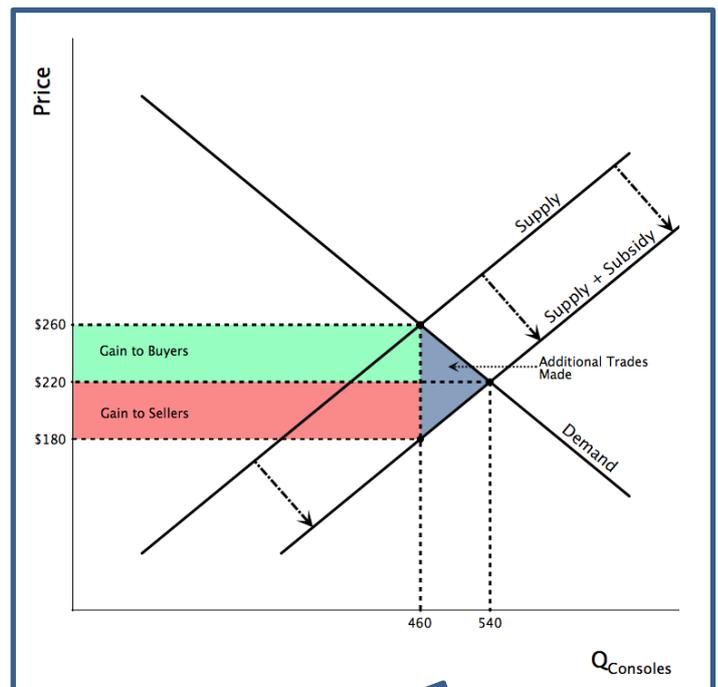
- Subsidies will increase supply.....
- Paying the developers will lead to a fall in price.
- Consumer surplus increases

Level 3 Band 1 ANALYSIS (9-10 marks)

- Subsidies effectively reduce producer costs
- Supply shifts to the right
- Price falls (from P to P1)

Level 3 Band 2 ANALYSIS (11-12 marks)

- The subsidy increases quantity (from q to q1)
- This solves underproduction of affordable new housing
- Consumer surplus increases



You don't actually have to show the gain to buyers and sellers nor do you have to show the additional trades made, it is your choice but I just wouldn't bother unless the question is suggesting that it should be mentioned. + **Ignore Q consoles, just write quantity instead. Also you can write S₁ instead of S + Subsidy**

Level 4 EVALUATION (13-15 marks)

Case for a subsidy with respect to supply could include:

- Incentive for producers to increase supply
- Lowers the cost of housing - potentially lowering price
- Helps people to get onto the property ladder.

Case against a subsidy for could include:

- Difficult to decide on the quantity of subsidy/government failure
- Opportunity cost to local authorities
- Impact depends on suppliers' reactions
- Other factors influence supply

EE ANSWER TO QUESTION + CONCLUSION (16 –18 marks)

- Stated or elaborated judgement