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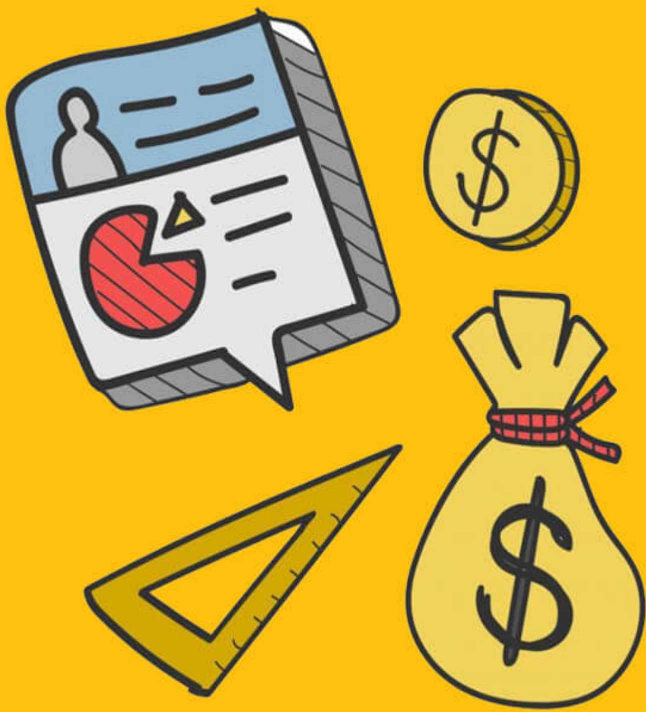
Positive and Negative Externalities in Consumption and Production



AQA AS Level Economics Revision Notes

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Externalities

- An externality is the cost or benefit a third party receives from an economic transaction outside of the market mechanism. In other words, it is the spill-over effect of the production or consumption of a good or service.

- Externalities can be **positive** (external benefits) or **negative** (external costs).

- Negative externalities are caused by **demerit goods.** These are associated with information failure, since consumers are not aware of the long run implications of consuming the good, and they are usually overprovided. For example, cigarettes and alcohol are demerit goods. The negative externality to third parties of consuming cigarettes is second-hand smoke or passive smoking.

- Positive externalities are caused by **merit goods.** These are associated with information failure too, because consumers do not realise the long run benefits to consuming the good. They are underprovided in a free market. For example, education and healthcare are merit goods. The positive externality to third parties of education is a higher skilled workforce.

- The extent to which the market fails involves a value judgement, so it is hard to determine what the monetary value of an externality is. For example, it is hard to decide what the cost of pollution to society is. Different individuals will put a different value on it, depending on their own experiences with pollution, such as how polluted their home town is. This makes determining government policies difficult, too.

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Private costs

- Producers are concerned with private costs of production. For example, the rent, the cost of machinery and labour, insurance, transport and paying for raw materials are private costs.
- This determines how much the producer will supply.
- It could refer to the market price which the consumer pays for the good.

Social costs

- This is calculated by private costs plus external costs
- On a diagram, external costs are shown by the vertical distance between the two curves. In other words, external costs are the difference between private costs and social costs.
- It can be seen that marginal social costs (MSC) and marginal private costs (MPC)diverge from each other. External costs increase disproportionately with increased output.

Private benefit

- Consumers are concerned with the private benefit derived from the consumption of a good. The price the consumer is prepared to pay determines this.
- Private benefits could also be a firm’s revenue from selling a good.

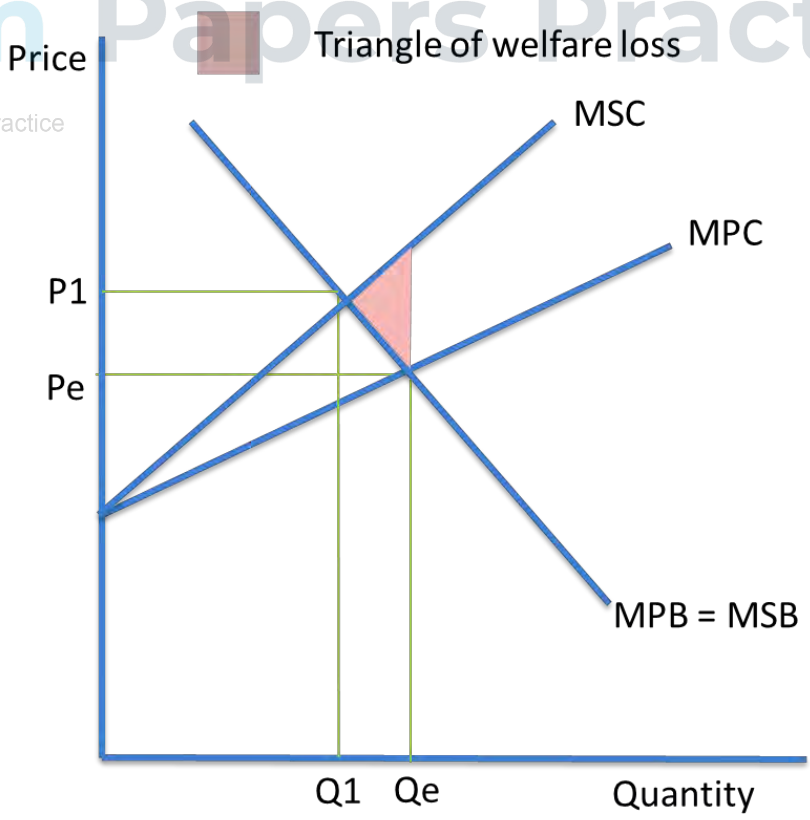
Social benefit

- Social benefits are private benefits plus external benefits.
- On a diagram, external benefits are the difference between private and social benefits.
- Similarly to external costs, external benefits increase disproportionately as output increases.

Social optimum position:

- This is where MSC = MSB and it is the point of maximum welfare.
- The social costs made from producing the last unit of output is equal to the social benefit derived from consuming the unit of output.

External costs of production:



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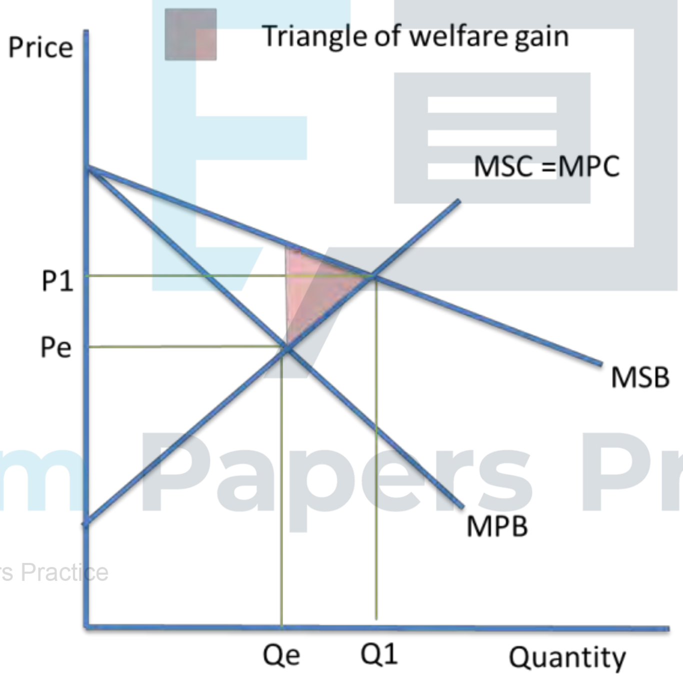
- External costs occur when a good is being produced or consumed, such as pollution.
- They are shown by the vertical distance between MSC and MPC.
- The market equilibrium, where supply = demand at a certain price, ignores these negative externalities. This leads to over-provision and under-pricing.
- With negative externalities, MSC>MPC of supply. At the free market equilibrium,therefore, there are an excess of social costs over benefits at the output between Q1 and Qe.
- The output where social costs > private benefits is known as the area of **deadweight welfare loss**, shown by the triangle in the diagram.
- The market fails to account for the negative externalities that occur from the consumption of this good, which would reduce welfare in society if it was left to the free market.

External benefits of production:



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- An example of an external benefit from the production or consumption of a good or service could be the decline of diseases and the healthier lives of consumers through vaccination programmes.
- Since consumers and producers do not account for them, they are underprovided and under consumed in the free market, where MSB>MPB. This leads to market failure.
- The triangle in the diagram shows the excess of social benefits over costs. It is the area of **welfare gain.**

Why the absence of property rights leads to externalities in both production and consumption and hence market failure

- Markets become inefficient where there are no property rights.
- For example, it is practically impossible to establish property rights on goods such as sea water and air. This means that free-riders can have unlimited access, which results in the exploitation of the good.
- The moral hazard assumes someone else will pay the consequences for a poor choice. For example, some people might litter the street if they think that other people will clear up after them.
- Scarce resources could be over-used or exploited. For example, rainforests are depleting and many species of fish are becoming endangered. This is because the environment cannot be protected by applying property rights.

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