Edexcel (B) Economics A-level

Theme 4: Making Markets Work

4.3 Market Failure across the Economy

4.3.2 Externalities

Notes

Private, external and social costs and benefits

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.

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.

- **Marginal private cost** is the cost to a firm of producing one extra unit.

- **Social costs**

- This is calculated by private costs plus external costs
- External costs are the difference between private costs and social costs.
- External costs increase disproportionately with increased output.
- **Marginal social cost** is the extra cost on society derived per extra unit consumed.
- Marginal social cost = marginal external cost + marginal private cost

- **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.
- External benefits are the difference between private and social benefits.
- Similarly to external costs, external benefits increase disproportionately as output increases.
- **Marginal social benefit** is the extra benefit on society derived per extra unit consumed.
- Marginal social benefit = marginal external benefit + marginal private benefit

- **External costs of production:**

- External costs occur when a good is being produced or consumed, such as pollution.
- The market equilibrium, where supply = demand at a certain price, ignores these negative externalities. This leads to over-provision and under-pricing.
- At the free market equilibrium, with negative externalities, there is an excess of social costs over benefits.
- 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.
- If an external cost is quantifiable, it could also be called an economic cost. For example, the economic cost of excess congestion on the roads could be roughly calculated. However, the economic cost of noise pollution cannot be estimated,

since it is hard to determine exactly who is affected and the extent of the damage caused.

- **External benefits of production**
- 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.

Environmental externalities

- The consumption of energy, sourced from resources such as coal and natural gas, results in negative externalities. These are visible in the form of pollution. There could be excess air pollution, scarring of the landscape and noise. However, the price of energy does not reflect the negative externalities and social costs which result from energy use.