

Economics Revision

AS Economics

Government Intervention and government failure

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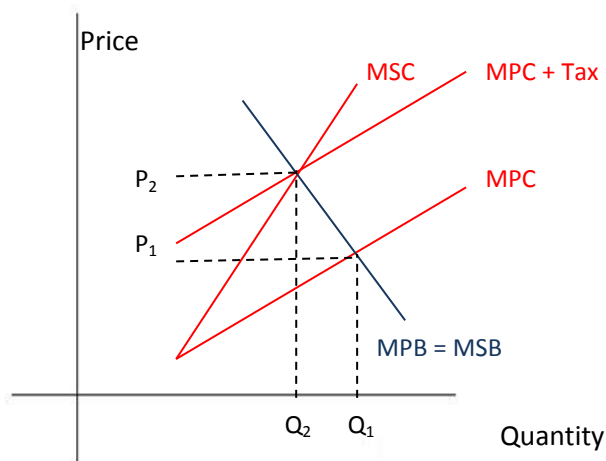
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Some households earn more than others because they have different levels of human capital (skills, qualifications etc.) which can either be accepted or changed. Most societies believe that some goods are special and should be available to all members of society, although some of them may not have the income or information necessary to spend money on goods which will benefit both themselves and society in the long-run. **Government intervention** is when a government intervenes in the market to try and correct this market failure.

Government failure is when intervention by a government leads to a net welfare loss rather than a welfare gain.

1. Indirect Taxation

Indirect taxes are taxes on the expenditure of goods or services – taxes are often imposed on goods which carry negative externalities. These kinds of taxes can be called green taxes, sin taxes and Pigou taxes.



- An indirect tax shifts the marginal private cost curve to the left to MPC + Tax, as the costs of production to producers has increased and therefore supply decreases.
- This means that the equilibrium shifts from the free market equilibrium of P_1Q_1 to the more socially optimum equilibrium of P_2Q_2 .
- The external cost per unit of the good in the diagram is represented by the vertical distance between the MSC curve and the MPC curve – imposing a tax equal to this external cost will mean that the negative externality is successfully internalised.

Advantages:

- Both the consumer and the producer, who cause an external cost by trading the good, pay a tax on the good.
- The external cost is internalised while consumer choice is still maintained.
- The external cost will fall as the supply of the good decreases and the price increases.
- The government raises revenue from taxation which can be used to compensate those affected by the external cost.

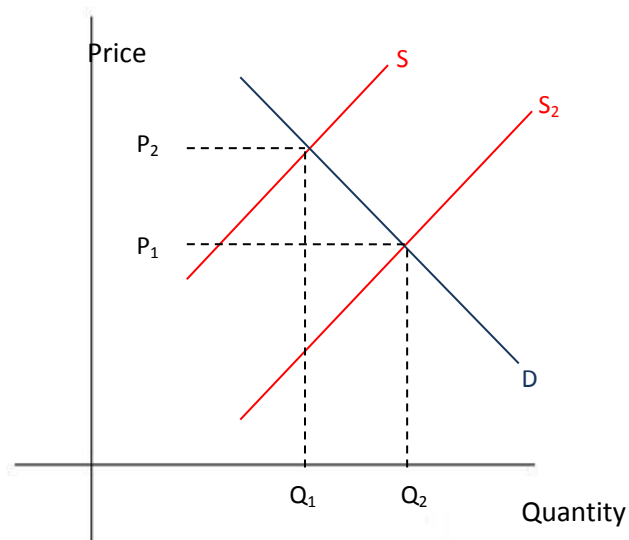
Government Failure:

- With external costs such as pollution it is difficult to measure them exactly, so deciding a value for the tax is hard.
- Firms may relocate to areas with lower taxation.
- Firms' costs of production increase, so their competitiveness decreases compared to other countries with lower taxes.
- If the demand for the good is price inelastic then the reduction in negative externalities may not be significant (because quantity demanded will not decrease by a large amount).
- Illegal markets may develop, selling the good.

- Illegal smuggling of goods such as alcohol – organised crime and smuggling on a large scale – limits government revenue.
- Tax on household waste – could affect large families and low income households who produce a large amount of waste.

2. Subsidies

Subsidies are grants to firms for producing a good or service, usually ones which have external benefits or which reduce external costs.



- S shifts to S_1 as supply increases due to decreased costs of production.
- This causes price to fall from P_1 to P_2 – some of the subsidy is therefore passed on to the consumer through this lower price.
- The quantity of the good, and therefore the external benefits it has on society, increases.
- The subsidy per unit is the vertical distance between the S and S_2 curves.

Advantages:

- If the subsidy is being used to increase alternatives to demerit goods with negative externalities, then the external cost of these goods is reduced.
- External benefits are increased.

Failure:

- The government may have to cut spending in other areas.
- Firms may become inefficient – become dependent on subsidies.
- Some alternatives to goods with negative externalities aren't reliable, e.g. wind power as a substitute for fossil fuels.
- May not lead to a rise in consumption of goods with positive externalities – people prefer the goods with negative externalities and the goods with positive externalities may be classed as inferior (e.g. car and bus travel).
- Real incomes increase – demand for good with positive externality will fall – subsidies a waste of money?

3. Extension of Property Rights

Property rights aim to neutralize the 'tragedy of the commons' - the problem that if a good is available for use by many people but no one is responsible for, or benefits by, its preservation, it will be overused by everyone. By giving someone a right to own a good, such as land, they then have an incentive to preserve it and to prevent other people from imposing costs on them.

Advantages:

- Efficient use of resources.
- Increased knowledge/expertise for those who own the property rights.
- Increased sustainability – increased chance that those who own the property rights will use them in a way which protects them for the use of further generations.

Failure:

- It is often difficult for governments to extend property rights.
- Attempts to combat pollution by extending property rights to the environment have encountered problems, such as the difficulty of tracing sources of pollution and the difficulty of who to assign the rights to.
- Giving people the right to own previously common goods can increase and facilitate inequality.
- Legal costs involved in prosecution – very high – deters victims from taking action.

4. Tradable Pollution Permits

In 2005 the European Commission set up an emissions trading system (ETS) in an attempt to limit greenhouse gas emissions from heavy industry. Its main focus is to curb carbon dioxide emissions by major polluters in the European Union, such as the power generators, steel, paper, cement and ceramics industries. It is intended to include the aviation industry in the scheme in 2012.

This 'caps' the amount of carbon emissions for the year. The pollution permits are tradable, which means that firms can buy and sell the allowances between themselves. The ETS gives an incentive to firms to invest in clean technology and so reduce carbon emissions in the long term. The ETS also allows firms to invest in schemes that reduce carbon dioxide emissions outside the European Union: for example, in India and China. The savings in carbon emissions can then be offset against their own emissions in the European Union.

Advantages :

- A market is created for buying and selling carbon permits, just like other goods and services. In effect, the price mechanism is used to internalize the external costs associated with carbon emissions.
- Pollution permits can be reduced over time as part of a coordinated plan.
- National governments can raise funds by selling up to 10% of their pollution permits to industry. The revenue could then be used to clean up the environment or compensate victims.
- Firms have an incentive to invest in clean technology.
- Production costs will increase for firms that exceed their pollution allowances, since they have to purchase additional permits and this provides a source of revenue for cleaner firms that can sell their excess pollution permits.
- The ETS may act as a foundation for a global-wide scheme. It has attracted interest from developed countries outside of the EU. The US state of California intends to join the European scheme.
- Firms may be able to bank their excess pollution permits for use in future years.

Disadvantages :

- The European Commission may issue too many carbon permits so that there is little incentive for firms to reduce pollution.
- The European Commission may allocate too few carbon permits so that production costs for EU firms increase rapidly, reducing their international competitiveness.
- Disputes have arisen over the allocation of carbon permits to firms. Some companies believe they should receive larger allowances
- Firms may pass the costs of purchasing pollution permits on to their customers, leading to higher prices
- There is less pressure on major polluting firms to clean up their act if it is possible to buy extra permits from elsewhere.

- EU firms may avoid investing in expensive technology to reduce their own emissions by funding cheaper carbon offsetting schemes in developing countries.
- The price of pollution permits has fluctuated considerably. This has created uncertainty among firms about whether to invest heavily in carbon-reducing technology.
- Pollution permits may create an entry barrier for new firms to enter an industry, so restricting competition.
- There is a cost to the government of monitoring pollution emissions from the many companies within the scheme.
- The valuation of pollution permits is an inexact science. Some environmental groups believe the carbon trading is simply leading to a false sense of security.

5. State Provision and Regulation

A government may regulate a good which is deemed to have external costs (tobacco, alcohol etc.) and provide a good which has external benefits (e.g. healthcare, education).

Direct controls – e.g. Environmental Protection Act set minimum environmental standards for emissions for many chemical factories.

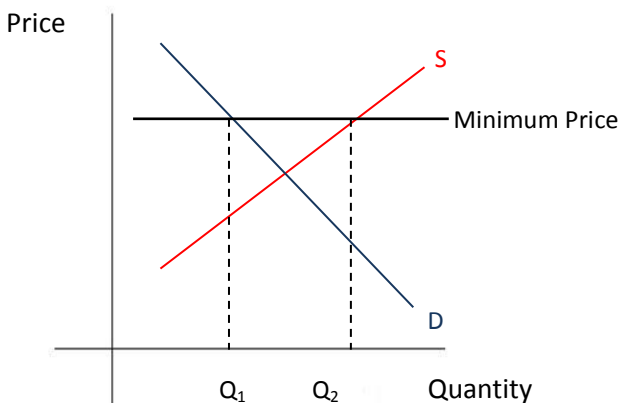
Advantages:

- Simple – e.g. age limits for buying cigarettes/alcohol.
- Companies who disobey regulations can be shut down/fined.
- Consumer protection laws about these products can reduce the asymmetry of information.
- Goods with external benefits become more accessible.

Disadvantages:

- Expensive to monitor firms' behaviour.
- Costs to firms – e.g. with the Environmental Protection Act some firms will have had to install pollution monitoring equipment.
- Regulations prevent the operation of the price mechanism.
- Resources may be misallocated.
- It may be difficult to attach a monetary value to costs such as pollution.

6. Minimum Pricing and Buffer Stocks



A minimum price as shown in the diagram causes demand to contract, leading to an excess supply of Q_1Q_2 .

The government therefore has to buy up the surplus .

Revenue for the producer increases and the excess supply is stockpiled.

Advantages:

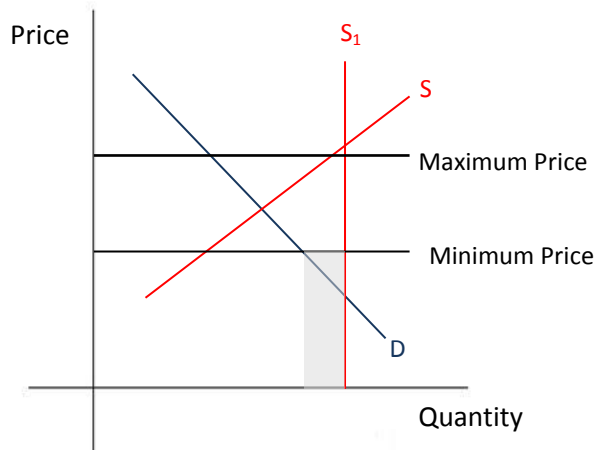
- Reduction in price fluctuations makes it easier for consumers to budget their spending.
- Incomes are stabilised and increased – greater investment.
- Employment in the sector of industry providing the good is maintained.
- Supply of the good is guaranteed – stockpiled – or the stocks can be used as aid to developing countries.

Disadvantages:

- Price increases.
- Government spending involves an opportunity cost.
- Storage costs for stocks bought by the government.
- Agricultural surpluses may be perishable – have to be destroyed.
- Excess supply – inefficient allocation of resources.
- Guaranteed income may decrease efficiency of producers over time.
- Waste of tax revenue.
- NMW (minimum wage) – unemployment due to decreased demand for labour.

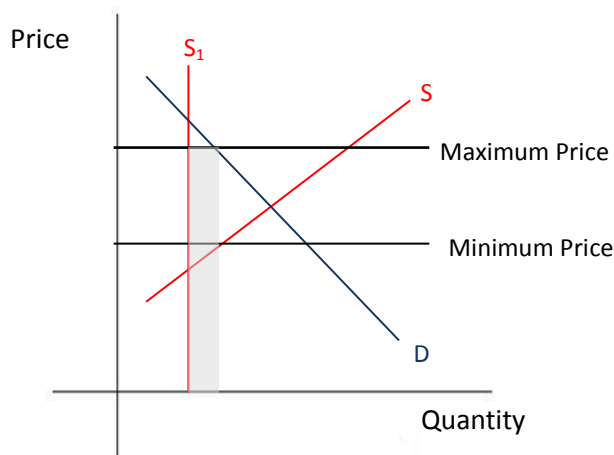
Buffer stock schemes are used by governments to avoid price fluctuations in commodity markets and therefore stabilise the income of producers.

A target price (maximum and minimum price) is set and the state makes sure the price remains within this band, regardless of changes in supply and demand.



The initial equilibrium is where S and D meet – a very good harvest the next year increases quantity supplied, but demand doesn't change, meaning that price falls to where D meets S_1 .

In order that the minimum price is met, the government buys up supplies (the total government expenditure is shown by the shaded area).



This time there is a poor harvest which decreases supply – government sells the quantity of goods (represented by the width of the shaded area) which means that supply is increased so price is kept at or below maximum price.

The total government revenue is shown by the shaded area.

Advantages:

- Commodity price fluctuations are reduced.
- Certainty in the market – higher investment.
- Provision of commodities ensured even in years of poor harvests.
- Price stability may provide an incentive for more firms to enter the market.
- The schemes achieve their aims quickly and effectively in comparison with some other government methods.

Disadvantages:

- Consecutive good harvests – money pressure for government.
- Consecutive poor harvests – may not have enough stocks for this.
- Trend of increased productivity in the agricultural sector – pressure on the government to purchase additional stocks and so the minimum price has to be lowered.
- There are costs involved in storing the excess costs.
- Stocks may be perishable – government may lose revenue as they have to dispose of stock.

Buffer Stocks and Minimum Prices

- E.g. in agriculture – food surpluses which have to be destroyed or given to developing markets.
- Distorts the operation of developing markets – over supply and misallocation of resources.