

# Indirect taxes

In this centrespread, David Horner outlines indirect taxes and how they can be used to correct market failure

## What are indirect taxes?

- Indirect taxes are those charged on the production of output (goods and services) that are paid indirectly by consumers.
- The tax is collected by the business selling the output – either as a manufacturer or as a retailer – but the consumer normally ‘pays’ the tax (at least in part) through an increased selling price for the output as a result of the tax.
- In the UK, indirect taxes are normally classed as either:
  - Unit taxes – where a fixed amount (in £s) is added to the original price of the product.
  - Ad valorem taxes – where a percentage of the original price of the product is added to arrive at the final selling price.
- In the UK, valued added tax (VAT) is the most commonly used indirect tax – which currently has a standard rate of 20% added to many goods and services.
- Other examples of indirect taxes include:
  - Excise duties on products such as tobacco, alcohol and petrol.
  - Customs duties – i.e. tariffs – on imports.
  - Other indirect taxes such as the soft drinks industry levy (commonly known as the ‘sugar tax’).

## Who pays the indirect tax?

- When an indirect tax is added to a product, the business can increase the selling price to cover the value of the tax.
- The extent to which the consumer pays for the tax in the form of higher prices (and how much of it the business ‘pays’ in the form of lower profits), is referred to as the tax incidence.
- How far the tax incidence falls on consumers depends on the product’s price elasticity of demand.
- Where demand is price inelastic, the incidence of tax falls mainly on the consumer – where the tax is ‘passed on’ to consumers as a higher selling price.
- Figure 1 shows where tax incidence falls mainly on consumers. The unit tax is of  $P_2P_3$  is levied on the product and its selling price increases from  $P_1$  to  $P_2$ . The total tax paid by the consumer is shown by the larger area  $P_1P_2BC$ . The tax ‘paid’ by the business is shown by the smaller area of  $P_1P_3CE$ .
- Figure 2 shows where producers carry most of the burden of the direct tax. The unit tax is of  $P_2P_3$  is levied on the product and its selling price increases from  $P_1$  to  $P_2$ . The total tax paid by the consumer is shown by the smaller area  $P_1P_2BC$ . The tax ‘paid’ by the business is shown by the larger area of  $P_1P_3CE$ .
- In the case of demand being perfectly price inelastic, the business would be able to add the full value of the tax on to the selling price and the consumer would pay the full amount of the tax.

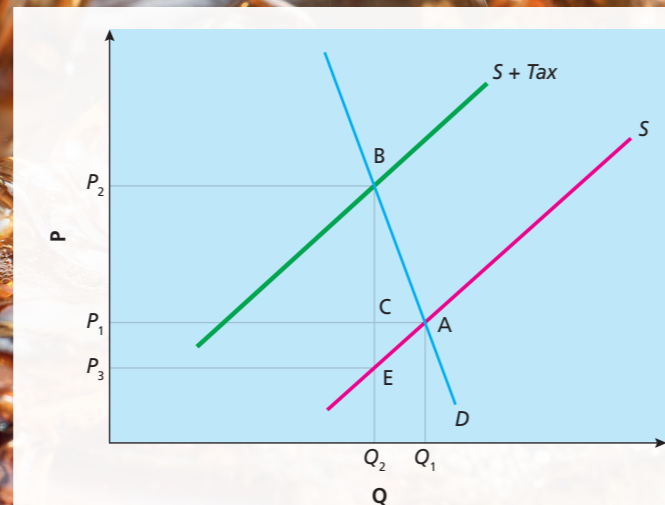


Figure 1 Tax incidence – the consumer ‘pays’ most of the tax

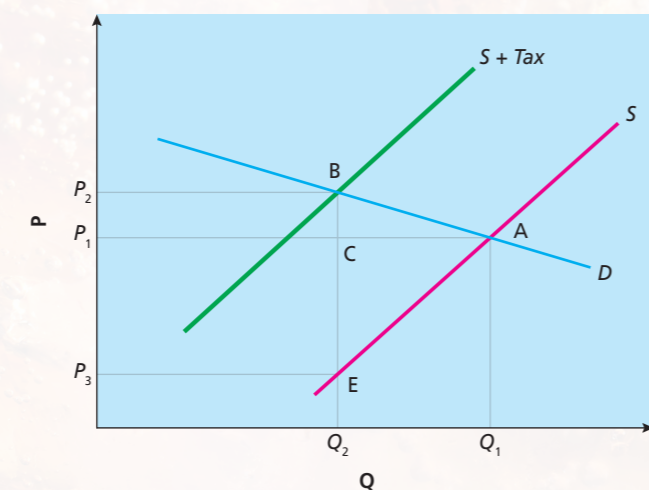


Figure 2 Tax incidence – the producer ‘pays’ most of the tax

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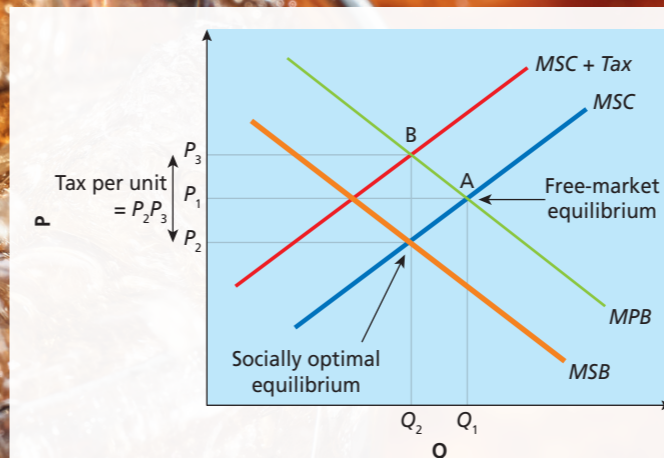


Figure 3 Taxing demerit goods can correct market failure

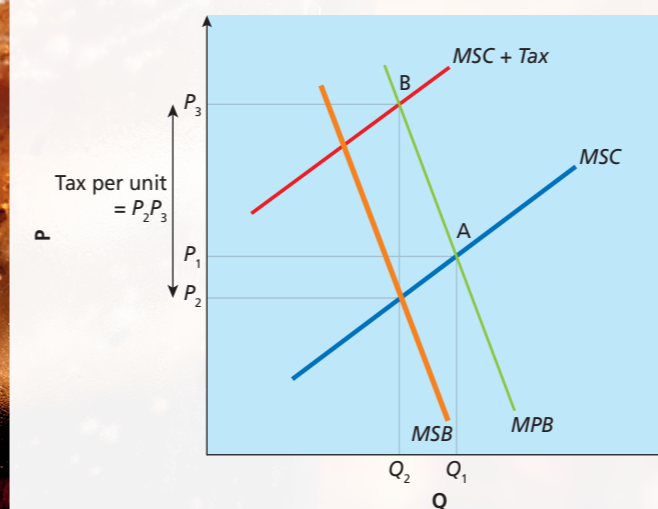


Figure 4 Demerit goods with price inelastic demand may need a high value tax to correct the market failure

## Indirect taxes and market failure

- Indirect taxes can be used to change patterns of consumption, such as reducing consumption of demerit goods.
- Figure 3 shows how a unit tax can be used to correct the market failure caused by overconsumption of a demerit good.
- In Figure 3, individuals do not act on the marginal social benefits (MSB) of consumption but rather the marginal private benefits (MPB). Social benefits of consumption are lower than the private benefits for reasons such as external costs associated with consumption and information failure leading to more consumption taking place than would occur if individuals were fully aware of the benefits/harm of consumption to themselves.
- An indirect tax on the product moves us along the private demand curve (MPB) to a lower level of consumption (from  $Q_1$  to  $Q_2$ ) so that the socially optimal level is consumed (and the market failure is corrected). This is shown by the change in equilibrium point from A to point B.
- In addition, indirect taxes can also be used to reduce output when a good has negative production externalities.
- In the case of negative production externalities, the indirect tax will correct the market failure if the size of the tax exactly matches the size of the external cost of production.

## Advantages of using indirect taxes

- Indirect taxes on products can generate a lot of revenue. In the case of using indirect taxes to correct market failure, the tax revenue could be spent on methods designed to raise public awareness, such as advertising campaigns that warn consumers of the damaging effects of consumption of demerit goods.
- Indirect taxes work well in correcting market failure where a product is overconsumed because it is lower priced than substitutes that are less harmful in consumption. The tax increases the price, which may help to reduce consumption.

## Disadvantages of using indirect taxes

- When trying to reduce overconsumption of demerit goods, the tax may need to be extremely high if demand is very price inelastic. On Figure 4, you can see that the tax needed to correct the market failure ( $P_2P_3$ ) is very large and more or less doubles the selling price (to  $P_3$ ) compared with the price without the tax being imposed ( $P_1$ ) – and the reduction in consumption (from  $Q_1$  to  $Q_2$ ) is not that significant in size as the equilibrium point moves from A to B.
- Indirect taxes can be regressive, in that they affect poorer households disproportionately more than richer households. This may not matter in the case of goods that are harmful. However, with an indirect tax such as VAT, this will mean poorer households pay proportionately more of their income in this tax than those households that are better off. This can worsen inequality.
- VAT may not be regressive as certain items are zero-rated. Food, children’s clothing, newspapers, sanitary products are all exempt. Heating costs (i.e. gas and electricity bills) have a reduced VAT applied of 5%.
- However, VAT is still charged at 20% on many other products (such as adult clothing) and so assuming that such products are consumed across all income groups, there is still a strong sense in which VAT remains regressive.