CIE Economics AS-level

Topic 3: Government Microeconomic Intervention

b) Taxes (direct and indirect)

Notes

Direct Taxes

- Direct taxes are paid directly to the government from the tax payer.
- Examples include income tax, corporation tax, NICs and inheritance tax. Consumers and firms are responsible for paying the whole tax to the government.

Indirect Taxes

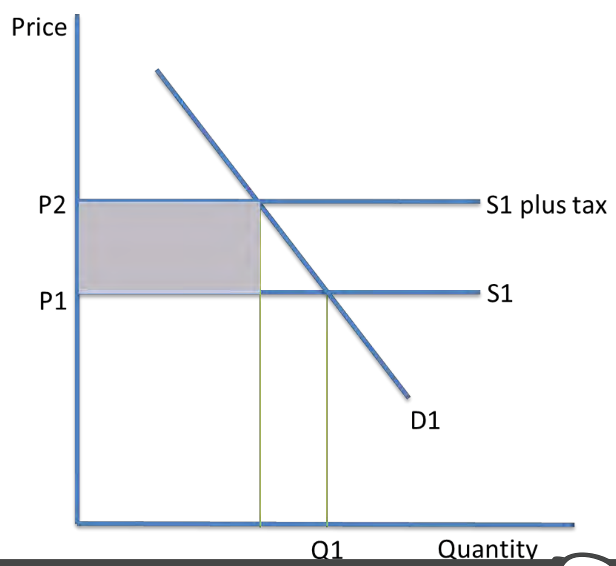
- Indirect taxes are imposed by the government and they increase production costs for producers. Therefore, producers supply less. This increases market price and demand contracts.

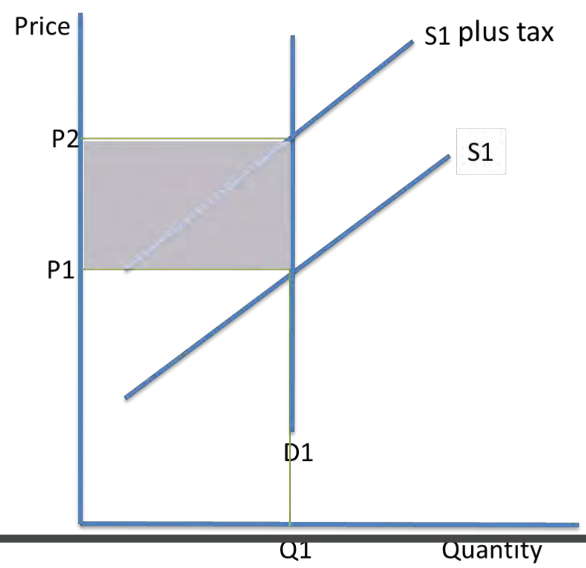
- There are two types of indirect taxes:
  - **Ad valorem** taxes are percentages, such as VAT, which adds 20% of the unit price. This is the main indirect tax in the UK.
  - **Specific taxes** are a set tax per unit, such as the 58p per litre fuel duty on unleaded petrol.

- Diagrammatically, it is shown by the vertical distance between two supply curves.

Specific Taxes

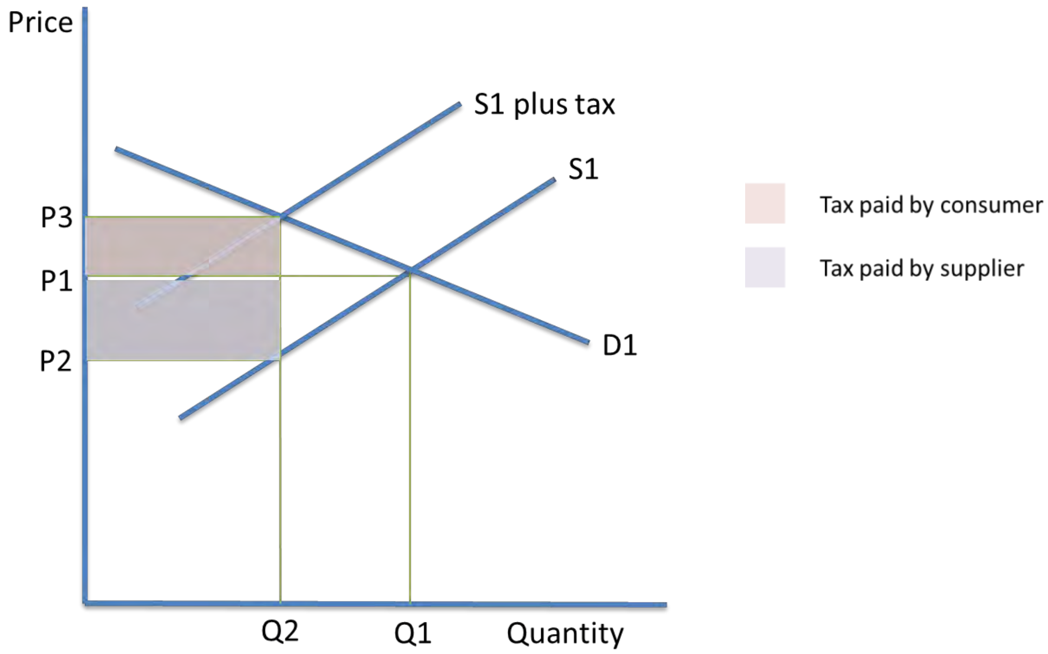
- When demand is perfectly inelastic, or supply is perfectly elastic, the incidence of the tax falls wholly on the consumer. The shaded area shows the size of the tax paid by the consumer.



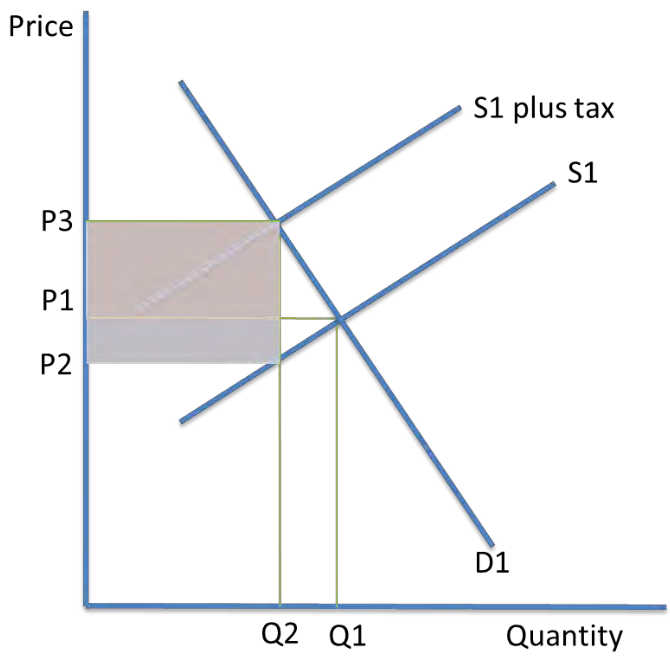


The burden of tax with different PEDs

- If demand is more elastic (PED>1), the incidence of the tax will fall mainly on the supplier.

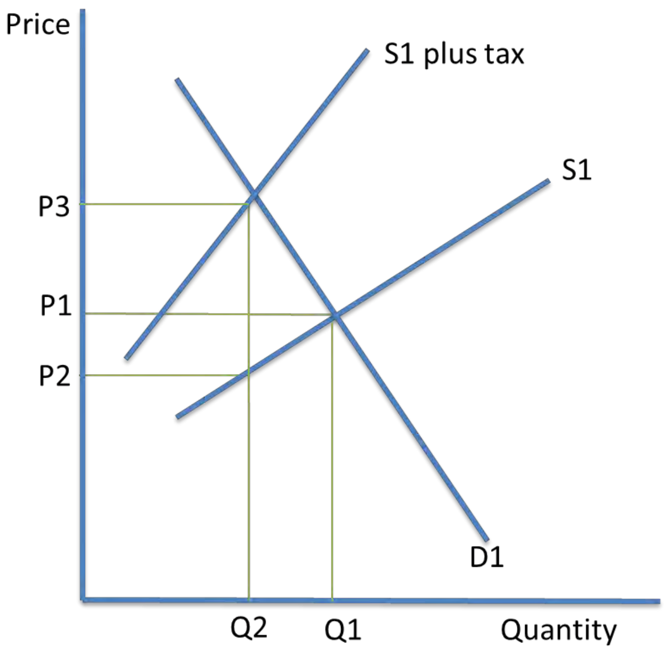


- If demand is more inelastic (PED<1), the incidence of the tax will fall mainly on the consumer.



Ad Valorem Taxes

- Since the tax is a percentage of the cost of the good, the absolute value of the tax increases as the price of the good increases. For example, with VAT at 20%, a good costing £10 will have £2 of tax. A good costing £100 will have £20 of tax. This causes the supply curve to pivot.



- If demand is inelastic, government revenue from the tax is higher than if demand is elastic. This is because demand will only fall slightly with the tax.
- For example, the duty on tobacco and fuel raises a lot of government revenue, because demand for these goods is inelastic.
- If the tax is implemented with the intention of internalising the externality, it is hard to put a monetary value on the externality.
- Internalising the externality means the individual or firm which causes the negative externality, for example pollution, pays for the damage.
- Taxes could be expensive for the government to collect.
- Some taxes could be regressive, so they impact those on low and fixed incomes the most.
- Taxes could be inflationary.

Average and marginal rates of taxation

- The marginal rate of tax is the rate of tax applied to the next unit of currency of the income. For example, in the UK, the marginal rate of tax is the rate of tax each extra pound added to any taxable income.
- The average rate of tax is the total tax paid divided by total income. It is a proportion of income.
- Increasing the average rate of tax as income rises means the tax is progressive.

Proportional, progressive and regressive taxes

- A proportional tax has a fixed rate for all tax payers, regardless of income. It is also called a flat tax.
- For example, all tax payers might have to pay 20% income tax rate.
- The marginal tax rate is equal to the average tax rate.
- The incidence of taxes is equal, regardless of the ability of the taxpayer to pay.
- It could encourage people to earn higher incomes, because the rate of tax paid does not increase.

- A progressive tax has an increase in the average rate of tax as income increases. As income increases, the proportion of income taxed increases.
- For example, in the UK income tax is progressive.
- People have a personal allowance of £10,600 where tax is not paid.
- For incomes below £31,785, people only pay the basic rate of 20%.
- For incomes between £31,786 and £150,000, people pay the higher rate of 40%.
- Above this, a 45% rate is paid.
- This should help reduce inequality, because those on lower incomes pay less tax.
- The tax is based on the payer's ability to pay. Higher income households are more able to pay higher rates of tax than lower income households.
- Generally, direct taxes are more progressive.

- A regressive tax does not relate to income, but means those on lowest incomes have a higher average rate of tax.
- In other words, the proportion of income paid as tax is higher for those on lower incomes than those on higher incomes.
- For example, as a percentage of income, the London Congestion Charge and Council Taxes are higher for those on lower incomes.
- This leads to a less equitable distribution of income.
- Generally, indirect taxes are more regressive.

The Canons of Taxation

- These were first developed by Adam Smith. They are essentially the criteria taxes are judged by. They are:

  1) The cost of collecting the tax must be low relative to the yield
  2) The timing and quantity paid must be obvious to the tax payer
  3) The timing and way of paying should be convenient for the tax payer
  4) Taxes should be imposed depending on the ability to pay

- These have been updated to include:

  5) The tax should not limit efficiency, and there should only be a minimum loss of efficiency.
  6) Tax should be compatible with tax systems of other countries. For the UK, taxes should be compatible with the rest of Europe.
  7) Taxes should adjust with inflation.