

# Subsidies

In this centrespread, David Horner outlines subsidies and how they can be used to solve market failure

## What are subsidies?

- Subsidies are payments made by governments to support the production or consumption of goods and services.
- They may be paid directly to businesses or to households, or indirectly through lower prices.
- Subsidies are designed to increase supply and/or consumption, leading to higher output and lower prices for consumers.
- The effect of a subsidy is to increase supply, shown in Figure 1, where there is a new equilibrium (move from A to B) with increased output ( $Q_1$  to  $Q_2$ ) and a lower price ( $P_1$  to  $P_2$ ).
- Subsidies can be given for a number of reasons:
  - to correct market failure
  - to promote innovation and technology advancement in new industries
  - to make essential goods and services more affordable
  - to boost exports
  - to protect businesses at risk of failure
  - to change patterns of consumption
  - to protect (infant) industries
- Examples of subsidies used in the UK (currently or recently) include:
  - up to £7,500 for households installing a heat pump
  - up to £3,750 for those buying selected electric cars
  - the job retention scheme (furlough) where the government paid up to 80% of people's wages if a business continued to employ them during the Covid-19 lockdowns
  - the 'feed-in' tariff, where households are paid money if they generate electricity using solar panels
  - the Energy Price Guarantee, where the energy bills for the average household could not rise above £2,500 (and the government paid any difference)

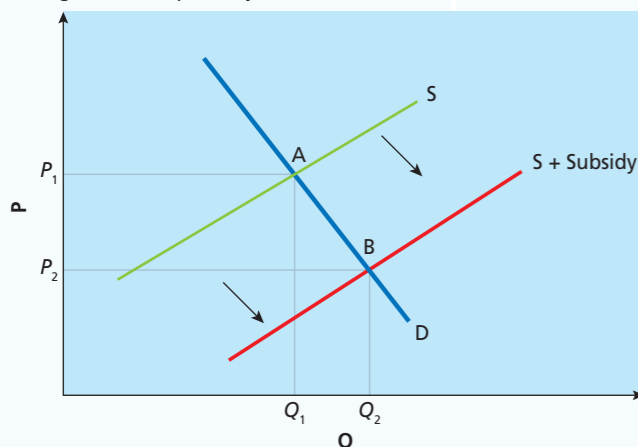


Figure 1 The effect of a subsidy on market equilibrium

## Who benefits from subsidies?

- A subsidy will lead to lower prices in most cases, which should benefit consumers.
- The incidence of subsidisation refers to how much a subsidy benefits consumers or producers.
- Figure 2 shows the incidence of subsidies. The total cost of the subsidy is  $P_2P_3AC$ .
- Subsidy incidence is split into the benefits to consumers and benefits for producers:
  - consumers benefit from lower prices (shown as area  $P_1P_2BC$ )
  - producers benefit from the remainder of the total subsidy (area  $P_1P_3AB$ )
- Consumers benefit more when the subsidy leads to a greater reduction in prices.
- How far the subsidy benefits consumers depends on the price elasticity of demand.
- Price elastic of demand means producers can benefit most from the subsidy and price falls by a smaller amount.
- Price inelastic demand means consumers can benefit most from the subsidy and price falls by a larger amount.
- The total cost of the subsidy is borne by the government – this will come from tax revenue (or government borrowing).
- Usually, they will benefit lower-income households most and therefore help to reduce inequality.

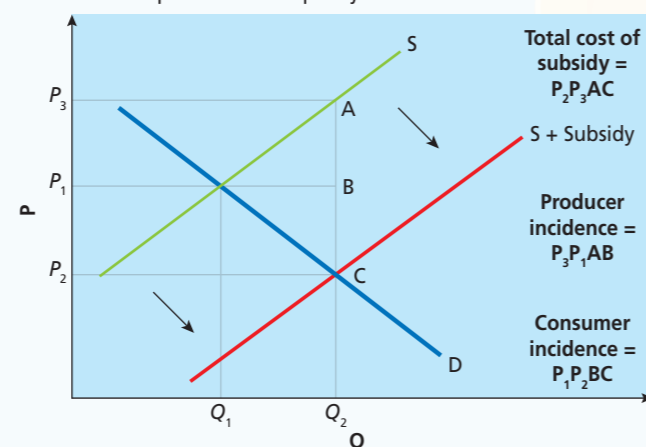


Figure 2 The incidence of a subsidy

## Subsidies and market failure

- Market failure arising from underconsumption or underproduction can be corrected by subsidising production.
- Figure 3 shows a merit good:
  - in a free market this would normally be consumed at output level ( $Q_1$ ), which is lower than the socially optimal level ( $Q_2$ ). The subsidy means that the price falls from  $P_1$  to  $P_2$
  - the subsidy shifts the equilibrium from A to C (by increasing the supply – shifting MSC to MSC + subsidy) and this results in the socially optimal level of consumption ( $Q_2$ )
  - the total cost of the subsidy is found by multiplying the subsidy per unit ( $P_3P_2$ ) by the quantity consumed ( $Q_2$ ) =  $P_3P_2BC$
  - this is particularly useful if the reason people were under-consuming the good was because it was originally too expensive in the free market
- Subsidies can also be used to correct other market failures, such as the underproduction of goods with positive production externalities.

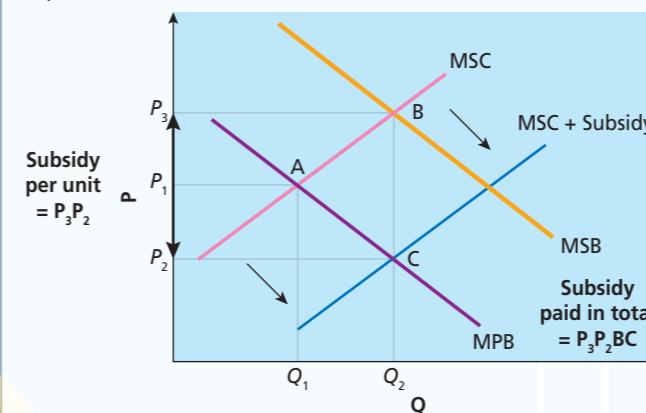


Figure 3 A subsidy to correct underconsumption of a merit good

## Advantages of using subsidies

- May provide support for businesses that cannot compete against more efficient competition (such as an infant industry).
- Keeps prices low so that consumers can afford important goods and services (e.g. household energy, medicines, etc.).
- Can focus on developing key industries (or export industries).
- Can be adjusted quickly, increasing or decreasing the amounts given.
- Can correct market failures (as described earlier).
- Can be used to achieve economic development if used appropriately to develop industries.
- May lead to lower unemployment if government subsidises industries that provide essential goods or services.

## Disadvantages of using subsidies

- The cost of the subsidy can be very large, generating an opportunity cost for a government, or a need to increase taxes.
- The subsidy may not be used by a business to reduce prices and may be used within the business to further the interests of internal stakeholders.
- It may create inefficiencies as it removes the pressure businesses face when competing in a free market. It may reduce the need for them to innovate or to control their costs.
- Businesses may become accustomed to the subsidy and cannot cope when it is removed.
- If subsidies are very generous, it may lead to the subsidy resulting in a sub-optimal quantity the good being supplied.
- Generous subsidies may lead to government failure, where the benefits gained from the subsidy are smaller than the cost of the subsidy, i.e. a worse allocation of resources.
- Figure 4 shows how an overly large subsidy of a merit good could result in the good being 'overprovided' – the generous subsidies and the lower price result in a significantly large increase in consumption, where the new output level ( $Q_3$ ) is further away from the optimal output ( $Q_2$ ) than the original output level ( $Q_1$ ).

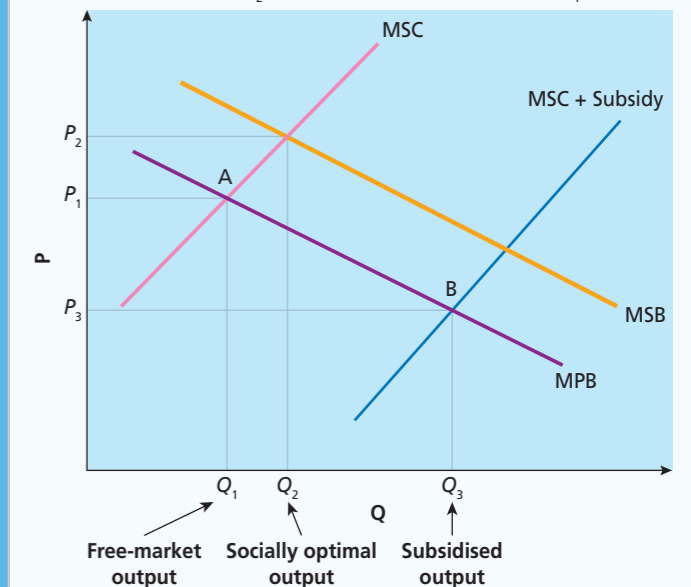


Figure 4 Overprovision caused by an excessive subsidy

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