Market failure: negative externalities

Negative externalities

Negative production externality – a third party or spillover external cost arising from the production of a good for which no compensation is paid e.g. pollution

Negative consumption externality - a third party or spillover external cost arising from the consumption of a good for which no compensation is paid e.g. tobacco consumption causing passive smoking (often called demerit goods)

Important externality terms

Social benefit = private benefit + external benefit

Social cost = private cost + external cost

MPC = marginal private cost – all the costs of producing one more unit of the good to the producer

MSC = marginal social cost – all the costs of producing one more unit of the good to society

MPB = marginal private benefit – all the benefits of consuming one more unit of the good to the consumer

MSB = marginal social benefit – all the benefits of consuming one more unit to society

In a perfect market, **allocative efficiency** is achieved when **P = MC**, but if externalities exist, then the **social optimum** is achieved when **MSC = MSB**

Negative consumption externality

For a negative consumption externality, MSB<MPB. The market will over-provide; too many scarce resources are allocated to the production and consumption of the good; there is a ***net welfare loss*** in the market. There is a case for government intervention to correct the market failure.

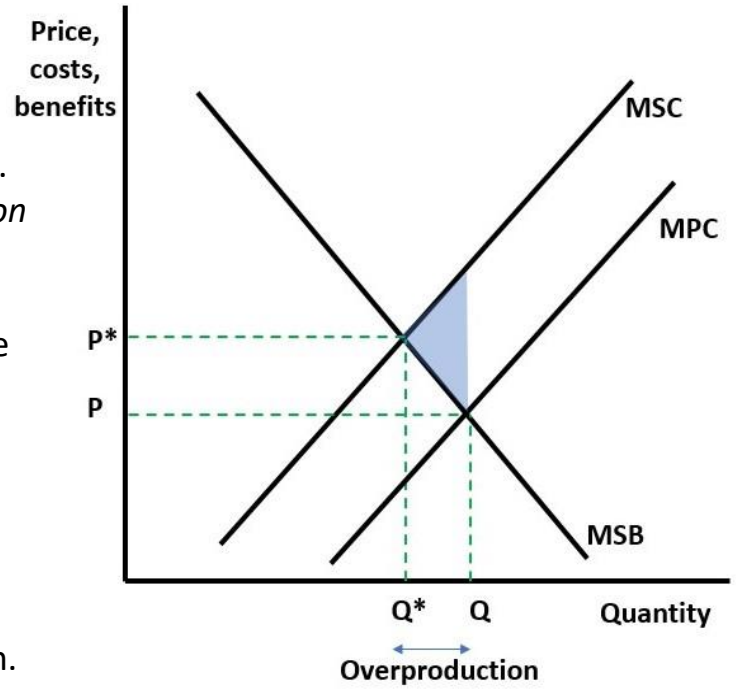
Examples of negative externalities

Negative production externalities: air, noise & water pollution, environmental damage,
Negative consumption externalities: tobacco, alcohol, gambling, obesity, congestion

Negative production externality diagram

The market only considers private costs and benefits with equilibrium at P and Q. The *negative production externality* means **MSC>MPC.** The social optimum will be where MSC=MSB, at Q*.

The market **overproduces** by Q*Q. There is a **net welfare loss** (shaded area) at the market equilibrium.



Policies to address negative externalities

Government policies can help reduce negative externalities, so the **externalities are internalised** e.g. the ***polluter pays principle***, reducing or eliminating the market failure. It is important to remember that there may be ***government failure*** if the policies worsen the allocation of resources.

- **Banning/restricting output** – a blunt intervention; a ban results in no output, so is best used when the negative externality is very large
- **Legislation/regulations** - rules to restrict pollution
- **'Nudge' policies** – use behavioural methods to encourage less pollution
- **Indirect tax** – shifts the MPC towards to MSC curve
- **Pollution permit trading schemes** – create incentives for firms to pollute less and for high polluting firms to cut output

Market failure: positive externalities

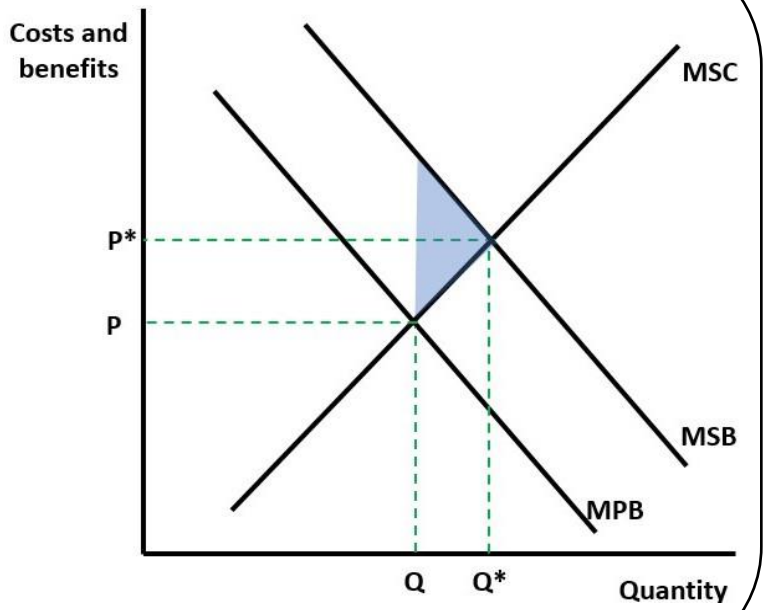
Positive externalities

Positive consumption externality: a third party or spillover external benefit arising from the consumption of a good for which no compensation is paid e.g. vaccination, healthcare & hygiene, public transport.
Positive production externality: a third party or spillover external benefit arising from the production of a good for which no compensation is paid e.g. R&D, training and education.

Positive consumption externality

The market only considers private costs and benefits with equilibrium at P and Q. The *positive consumption externality* means **MSB>MPB.** The social optimum will be where MSC=MSB, at Q*.

The market **under-provides** by Q*Q.
There is a **net welfare loss** (shaded area) at the market equilibrium.



Examples of positive externalities

Positive production externalities: fish industry benefitting from a dam built to store water (reservoir); honey producer benefitting from being near an apple orchard
Positive consumption externalities: healthcare, education, dental care, green spaces/parks

Positive production externality

For a positive production externality, **MSC<MPC**. The market will under-produce; too few scarce resources are allocated to the production and consumption of the good; there is a *net welfare loss* in the market. There is a case for government intervention to correct the market failure.

Policies to address positive externalities

Government policies can help reduce positive externalities, so the **externalities are internalised.** It is important to remember that there may be ***government failure*** if the policies worsen the allocation of resources.

- Government provision free at the point of use – a blunt intervention; providing free (e.g. NHS services) can result in market quantity well above the social optimum output, so is best used when the positive externality is very large
- Legislation/regulations - rules to enforce consumption eg. school leaving age
- Subsidy – shifts the MPC to the right so the new equilibrium quantity aligns with the social optimum
- 'Nudge' policies – use behavioural methods to encourage more consumption

Evaluation of government policies to reduce/eliminate externalities

Success of the policy intervention depends on:

- Size of externality
- The extent to which the externality can be measured
- Whether there are unintended consequences from the policy
- Whether there is government failure (this could be an information failure)
- Opportunity cost of policy – some interventions are expensive
- How the policy affect the distribution of income – are there winners and losers?

The government needs to judge whether the benefits of intervening are sufficiently high relative to the costs to make it worthwhile for social welfare.

Market failure: public goods

Characteristics of private goods

Private goods are goods and services supplied and sold through markets by private sector businesses. They are:

- **Excludable** – buyers can be excluded from benefiting from the good if they are not willing or able to pay for it
- **Rival** - one person's consumption of a product *reduces* the amount left for others to consume and benefit from
- **Rejectable** - can be rejected by the consumer if their needs and preferences or their budget changes

Characteristics of public goods

Public goods are defined by their characteristics:

- **Non-excludable** – once a good is provided it is impossible to prevent people from using and benefiting from it; non-payers can enjoy the benefits for free creating a 'free rider' problem
- **Non-rival** (or non-diminishable) - consumption of a good by one person does not prevent or reduce the benefits to another person consuming the good
- **Non-rejectable** – the collective supply of a pure public good means it cannot be rejected by people.

Pure public goods v quasi public goods

Pure public good: non-excludable and non-rival all of the time, e.g. national defence, security, mass vaccination

Quasi public good (semi-public goods): has some, but not all public good characteristics i.e. it has one or other characteristics, or has both some of the time, but not all of the time. e.g. TV & radio broadcasting, toll bridge

Technological advances can change a pure public good into a quasi-public good or a quasi-public good into a private good

Public 'bads'

Public bads are non-excludable and non-rival, but provide dis-satisfaction to people who consume, eg, flytipping, air pollution

The free rider problem

Free rider - someone who consumes a good without paying for it.

Because public goods are non-excludable, it is difficult to charge consumers once a good has been provided – there is a **free rider problem.**

- Consumers *do not reveal their preferences* if they think they can free ride
- This means there is *no demand curve* in the market
- There is *no incentive for producers* to supply the good because it will not be profitable
- The *market is missing* – resources are not allocated to produce public goods, even though consumers may actually want them

The free market will fail to provide pure public goods *(complete market failure).*

For quasi-public goods, under=provision is still likely to occur *(partial market failure).*

Possible solutions to market failure of public goods

Government provision – collective provision through taxation

Government funding – the government could fund private provision financed through taxation or charges (eg TV licence)

Voluntary/charitable donations – eg RNLI

Communities may act altruistically – and pay collectively eg private road

Advantages and disadvantages of government provision

- Equity – all people, whatever their income have access to public goods
- Efficiency – collective provision allows economies of scale
- Overcomes the free rider problem/missing market
- Public sector investment is higher
- Government may lack the information needed to provide best amount of public goods
- Possible diseconomies of scale
- Government funding of private sector provision is often costly & wasteful
- Government corruption issues

Market failure: information gaps

Information failure/information gaps

Information failure occurs when people have inaccurate, incomplete, uncertain or misunderstood data and so make potentially 'wrong' choices
Information gaps exist when either the buyer or seller does not have access to the information needed for them to make a fully-informed decision, leading to a misallocation of scarce resources = market failure

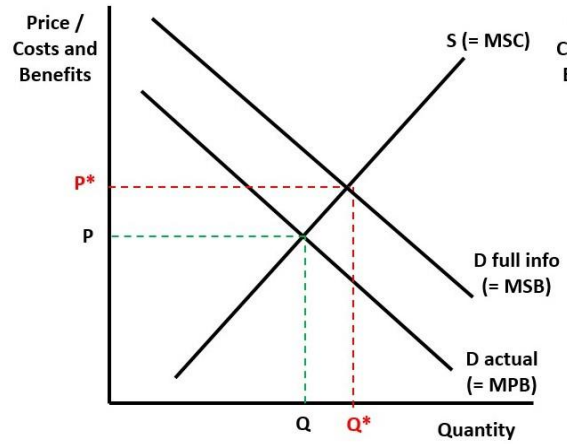
Important information failure terms

Asymmetric information – buyers and sellers have different amounts of information e.g. buyers often know less than sellers when buying second-hand cars; buyers often know more than sellers when buying car insurance
Adverse selection - people taking out insurance are often those at highest risk e.g. a person leading an unhealthy lifestyle is more likely to take out health insurance, meaning more payouts for insurance company
Moral Hazard – being insured can make you more careless e.g. banks made risky decisions before the global financial crisis aware that they would likely receive bail-outs
Principal-agent problem – goals of the principals, those who lose/gain from a decision, are different from the agents, those making the decisions e.g. managers (agents) may have more information than shareholders (principals)

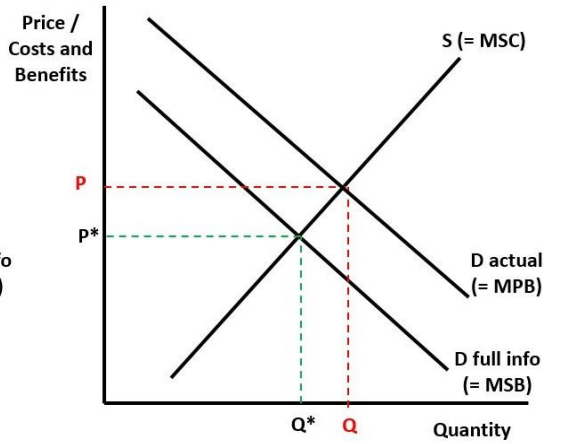
Examples of information failure

- Risks from using tanning salons
- Addiction to painkillers and other drugs
- Gaining entry into elite degree courses at university
- Complexity of pension schemes
- Uncertain quality of second-hand goods
- Knowledge of the nutritional content of food
- Cowboy builders and other rip-off merchants
- Tourist bazaars or buying and selling antiques

Information gap diagrams



If consumers had full information, they would demand more because they are aware of the extra societal benefits; the *information gap* causes under-consumption at Q



If consumers had full information, they would demand less because they are aware of the extra societal costs; the information gap causes over-consumption at Q

Policies to address information failure/gaps

Government policies can ***improve information*** to help producers and consumers value the actual costs and benefits more accurately, reducing or eliminating the market failure. It is important to remember that the government also can act on poor/incomplete information and there may be ***government failure*** as a result.

- Compulsory labelling on products
- Improved nutritional information on food/drinks
- Hard-hitting anti-speeding advertising
- Campaigns to raise awareness of risks of drink-driving/drug abuse/ smoking/vaping
- Campaigns on dangers of gambling addiction
- Performance league tables for schools/school inspections
- Consumer protection laws
- Industry standards and guarantees for selling used products

Market failure: environmental economics

Tragedy of the Commons

Tragedy of the Commons: When no one owns a resource, it may get over-used, for example fish stocks and deforestation - people use and benefit from a common pool resource such as grazing land without regard to the effects on others.
Our natural resources are often over-used, leading to ***environmental degradation and depletion.***

Green tax e.g. carbon tax

Carbon tax on carbon emissions – an indirect tax on producers that raises the price of emissions

Advantages

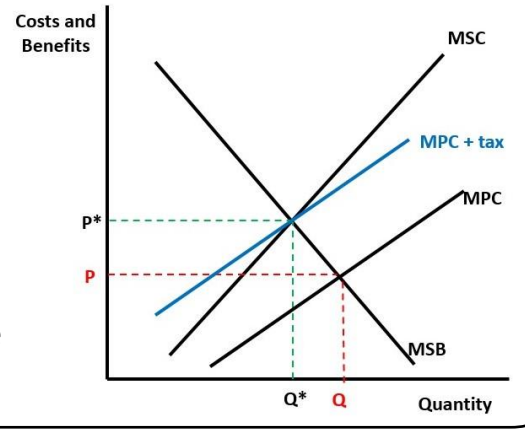
- Mandates a specific price on carbon
- Makes the polluter pay and internalises the externality
- Incentives firms to lower their emissions and for consumers to change their behaviour
- Revenue generated can be 'ringfenced' (hypothecated) and spent on other environmental initiatives

Disadvantages

- Problems determining the size of the tax; hard to assess the true cost of CO2 emissions and climate change
- Demand may be price inelastic so tax may have little impact on pollution
- Reluctance to impose if it could cause a loss of international competitiveness
- Could be regressive
- Costs of compliance and rise of tax evasion
- Countries may 'free ride' – let others tax and yet gain benefits

Diagram of green tax

- Environmental damage means MSC>MPC
- Carbon tax shifts MPC up
- Market equilibrium changes from P and Q to P* and Q*
- Q* is the social optimum (where MSB=MSC)
- The carbon tax has eliminated the welfare loss, internalised the externality and made the polluter pay

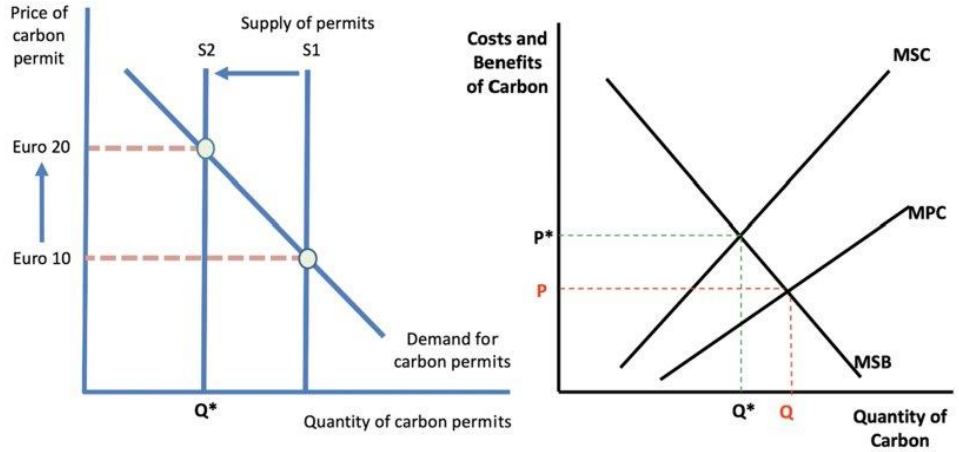


Tradeable permit scheme

Carbon emissions trading, also known as **cap-and-trade**, is a market-based system for reducing greenhouse gas emissions.

- Under a cap-and-trade system, the government sets a limit, or cap, on the total amount of emissions that can be produced in a given period
- Companies are then issued permits, or allowances, to emit a certain amount of CO2
- If a company emits less than its allotted amount, it can sell its surplus allowances to another company that has exceeded its limit
- This incentivises firms to emit less because they can increase their revenue by selling permits and/or because if they pollute they will have to buy more permits adding to their costs

Diagram for permits



Other green policies

Other green taxes – fuel duty, air passenger duty, landfill tax etc
Subsidies – for green energy, fitting heat pumps, home insulation
Regulations – targets for net zero, electric vehicles, renewable energy; energy labelling for homes/appliances
Behavioural changes – waste reduction & circular economy, nudges (e.g lower default temperature on boiler/showers)
Voluntary carbon footprint offsetting emissions – e.g. tree planting

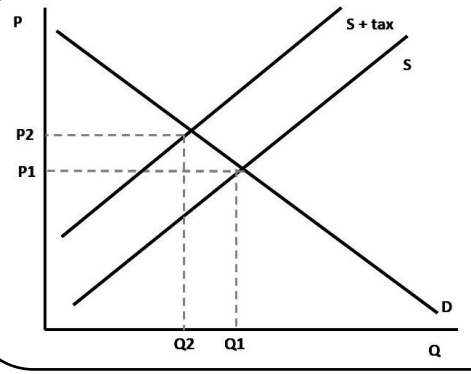
Government intervention: indirect tax

Indirect tax

Indirect tax- tax imposed on producers (suppliers) by the government; producers may be able and choose to pass on some or all an indirect tax to their customers by raising prices. Indirect taxes are a form of ***government intervention*** in markets often with the aim of addressing **market failure.**

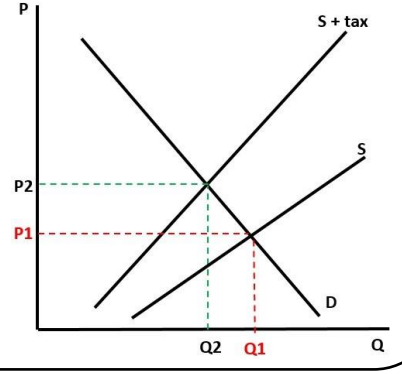
Examples include duties on cigarettes, alcohol and fuel, the sugar levy, VAT and carbon taxes

Specific (unit) tax v. ad valorem tax

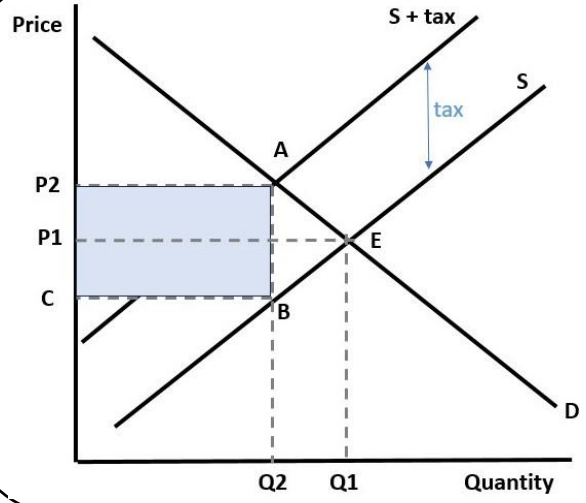


Specific tax – a parallel shift

Ad valorem tax – a pivotal shift



Impact of indirect tax on the market

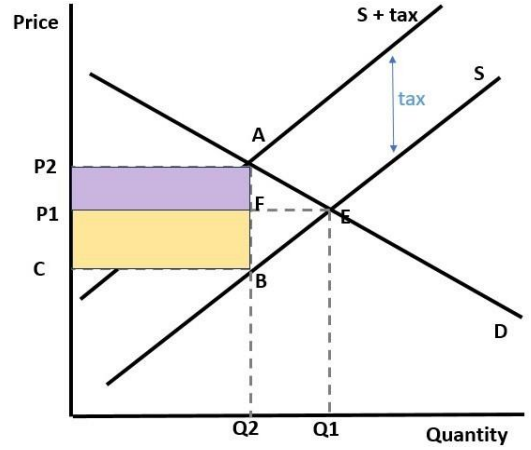


- Starting equilibrium at E, price = P1, quantity = Q1
- Indirect tax shifts supply up from S to S+tax
- New equilibrium at A; price rises to P2 and quantity falls to Q2
- Tax revenue raised = tax per unit AB x quantity sold after tax Q2 or shaded area ABCP2

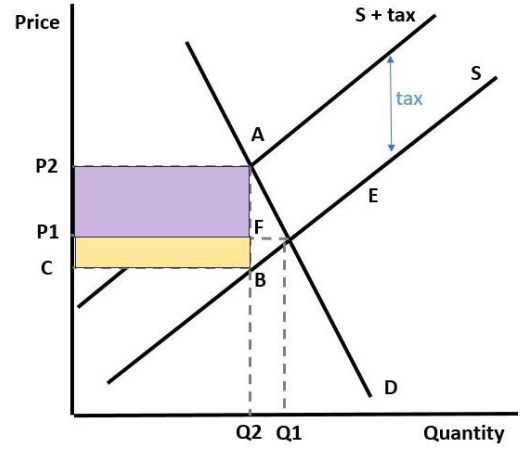
The incidence of the tax

Tax incidence: How the final burden of a tax is shared between the producers and the consumers.

If demand for a good is **price elastic**, then the tax will fall mainly on the producer (area P1FBC) as they will be unable to put prices up without losing a lot of demand. The consumer only pays area P1P2AF



If demand for a good is **price inelastic**, then the tax may fall mainly on the consumer (area P1P2AF) as the producer can put prices up without losing a lot of demand. The producer only has to absorb area P1FBC.



Tip: Find the area the consumer pays by looking at the increase in the market price – this is tax incidence on the consumer

Advantages and disadvantages of indirect taxes

Advantages

- Corrects market failures e.g. negative externalities, information failures that lead to over-provision
- Deters consumption of goods that are bad for us, e.g. tobacco, sugar
- Source of revenue for government
- Helps tackle climate change

Disadvantages

- Regressive
- Hard to determine best size of tax
- Compliance costs
- Possible tax avoidance/evasion
- Shadow market activity
- Government failure/unintended consequences

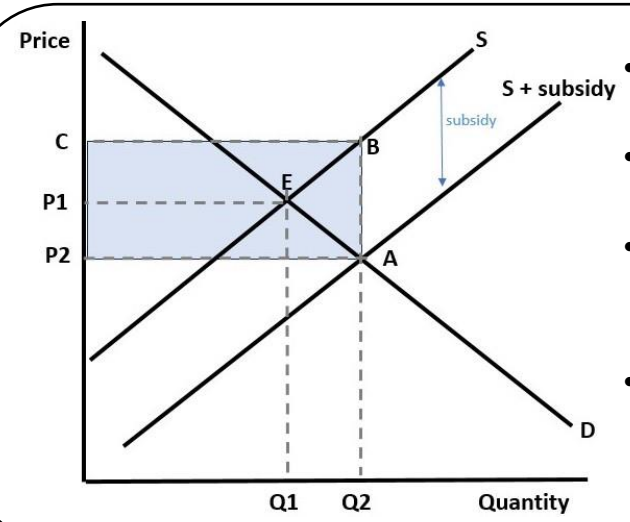
Government intervention: subsidies

Subsidies

Producer subsidies – payments to producers by the government to reduce the costs of production e.g. subsidies for renewable energy; shifts supply right

Consumer subsidies – payments to consumers to allow them to purchase more of a good/service e.g. childcare vouchers; shifts demand right

Impact of a producer subsidy



- Starting equilibrium at E, price = P1, quantity = Q1
- Subsidy shifts supply down from S to S+subsidy
- New equilibrium at A; price falls to P2 and quantity rises to Q2
- Total cost of subsidy = subsidy per unit AB x quantity sold after subsidy Q2 or shaded area ABCP2

Advantages and disadvantages of producer subsidies

Advantages

- Corrects market failures e.g. positive externalities, information failures that lead to under-provision
- Encourages consumption of goods that are good for us, e.g. healthcare; fresh fruit
- Encourages firms to invest & innovate
- Helps protect producer incomes & jobs
- Supports those on lower incomes
- Can help tackle climate change
- Can help make exports more competitive

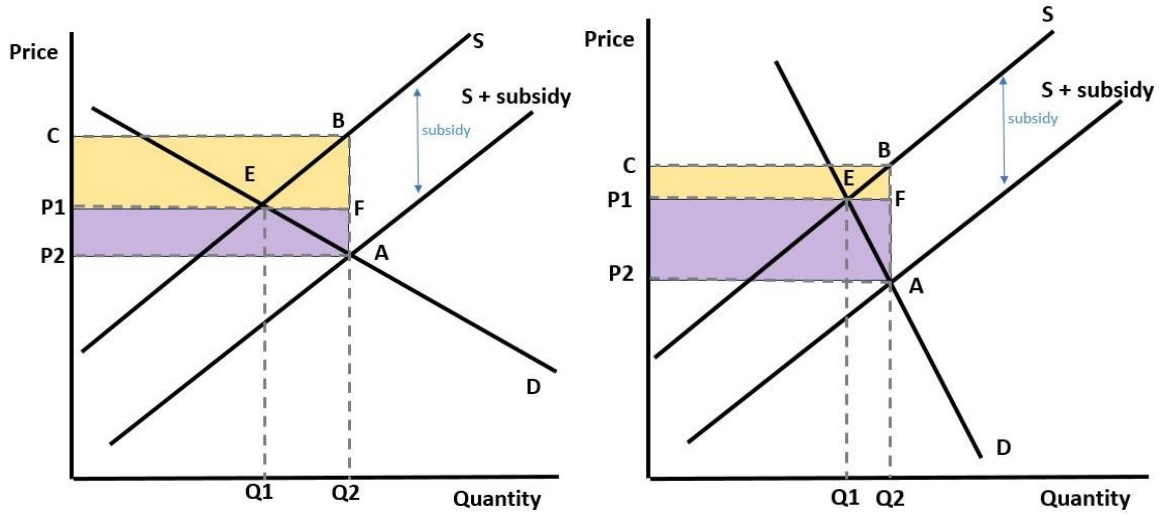
Disadvantages

- Cost to government (opportunity cost)
- Firms may become over-reliant on subsidy
- Firms have less incentive to be efficient and productive
- Firms may distribute extra profit to shareholders rather than re-invest
- May cause fraud/corruption
- Government failure/unintended consequences

The benefits of the subsidy

If demand for a good is **price elastic**, then the subsidy will mainly benefit the producer (area P1FBC) as they will not have to cut price much to gain more demand. The consumer only gains area P1P2AF

If demand for a good is **price inelastic**, then the subsidy mainly benefits consumers (area P1P2AF) as the producer has to put prices down a lot to gain a small increase in demand. The producer gains area P1FBC.



Tip: Find the area the consumer benefits by looking at the decrease in the market price as this indicates the benefit to consumers

Evaluation of subsidies

- Are the subsidies meeting their aims?
- Does the outcome depend on the size and scope of the subsidy? Or on the elasticity of demand or supply?
- Will the subsidy promote efficiency?
- What is the opportunity cost of the subsidy? Who will gain/loss from the subsidy cost?
- Does the subsidy help correct a market failure?
- Are there unintended consequences? Government failure?

NB: These ideas/questions could be applied to indirect taxes when evaluating too

Government intervention: maximum price

Price controls

If the market price is ***sub-optimal*** for social, environmental or political reasons, the government may decide to ***control the market price*** directly

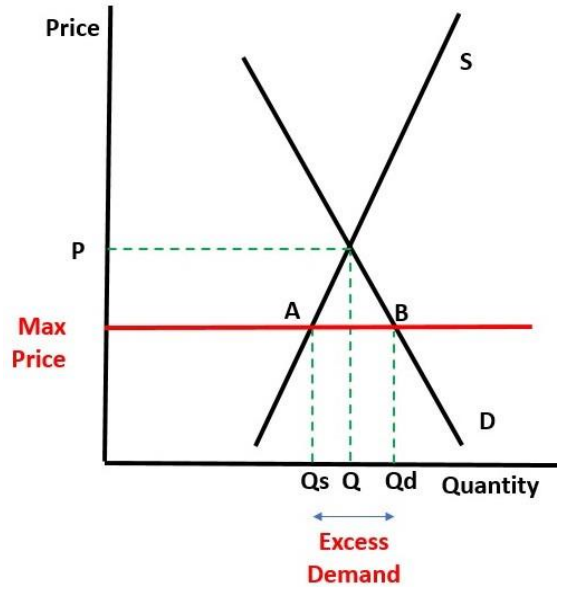
Maximum price

Maximum price –the government or an industry regulator can set a **maximum price** to prevent the market price from rising above a certain level. Also known as a **price cap** or **price ceiling**.

Rationale for maximum prices

- To make necessities more affordable, especially for those on low incomes (more equitable); reduces poverty/hardship
- To encourage consumption of goods that are good for social welfare, have positive externalities or where consumers may lack all information
- To prevent businesses profiteering at expense of consumers

Impact of a maximum price in a market



- Starting equilibrium at price = P, quantity = Q
- Maximum price is set ***below*** the market price
- New price = the max price
- New quantity demanded is Qd, the lower price causes an *extension* in demand
- New quantity supplied is Qs, the lower price causes a *contraction* in supply
- There is an **excess demand** of QsQd or AB at the maximum price

Consequences of maximum price

- The maximum price causes a ***shortage*** of the good.
- There is a ***disequilibrium*** at the maximum price.
- The price cannot rise to remove the excess demand – it has lost its ***rationing function***
- The quantity supplied will need to rationed in a different way, e.g. first come, first served; waiting lists; preferred customer priority; ration books; via shadow market activity
- There is potential for ***government failure*** and ***unintended consequences***.

Examples of maximum prices in markets

- Rent controls
- Energy price cap
- Cap on bonuses and CEO pay
- Cap on mobile phone roaming charges
- Price caps for water companies
- Cap on university tuition fees
- Bus fare price cap
- Cap on interest rates charged by pay day lenders
- Currency pegs
- Cap on annual charges for occupational pension plans
- Tickets prices for events

Problems with maximum prices

- Excess demand needs addressing; alternative rationing methods may not work well
- Suppliers may leave the market if they cannot charge a price high enough to make profit (which would increase any shortage created by the maximum price)
- There may be better alternative policies the government could use if it believes the market price is too high e.g. subsidies, provision of information, redistribution from rich to poor, government provision

Government intervention: minimum price

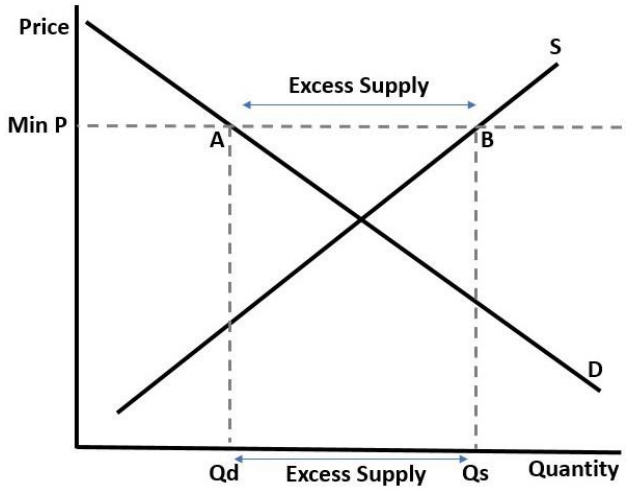
Minimum price

Minimum price –the government can set a **minimum price** to prevent the market price from falling below a certain level. Also known as a **price floor.**
Guaranteed minimum price – the government will buy up and excess supply to guaranteed the minimum price e.g. some agricultural minimum prices.
Legal minimum price – the government sets the minimum by law; there is a ban on sales below the price set; the government does not buy up any surplus e.g minimum price of alcohol.

Rationale for minimum prices

- To support the incomes and jobs of producers and encourage investment and innovation
- To discourage consumption of goods that are bad for social welfare, have negative externalities or where consumers may lack all information
- To prevent consumers abusing any monopsony power they have at expense of suppliers

Impact of a minimum price in a market



- Minimum price is set **above** the market price
- New price = the min price
- New quantity demanded is Qd, the higher price causes a *contraction* in demand
- New quantity supplied is Qs, the higher price causes an extens*ion* in supply
- There is an **excess supply** of QsQd or AB at the minimum price

Consequences of minimum price

- The minimum price causes a ***surplus*** of the good
- There is a ***disequilibrium*** at the minimum price
- The price cannot fall to remove the excess supply – it has lost its signalling and incentivising ***functions***
- For a ***legal minimum***, firms cannot sell more than Qd so they will reduce their supply (supply shifts left)
- For a **guaranteed minimum** the government will buy up the surplus at the minimum price (cost to government = QdABQs)
- There is potential for ***government failure*** and ***unintended consequences***

Examples of minimum prices in markets

- Minimum price for alcohol
- National minimum/living wage
- Minimum care worker price
- Agricultural support where price is guaranteed to farmers
- Guaranteed prices for renewable energy suppliers

Problems with minimum prices

- Excess supply needs addressing
- For legal minimum price – suppliers cannot sell any excess, so they will cut supply, output and jobs
- For guaranteed minimum price – intervening to buy up the surplus can be expensive (opportunity cost); surplus will need storing, selling on, destroying etc.
- There may be better alternative policies the government could use if it believes the market price is too low e.g. indirect taxes, provision of information, regulations, government ban/restriction; direct grants to support producers

Government Failure

Government failure

Government failure – government intervention worsens the allocation of scarce resources:

- It results in a greater net welfare loss
- The cost of the intervention outweighs the benefits gained
- The policy fails to generate a change in behaviour by economic agents and so the policy fails to achieve its aims

Causes of government failure

- Political self-interest
- Poor value for money
- Policy short-termism
- Regulatory capture
- Conflicting objectives
- Bureaucracy and red tape

Outcomes of government failure

- Greater inequality e.g effects on lower-income households
- High costs of compliance and implementation
- Possible unintended consequences
- Possible conflicts with other micro/macro objectives
- Poor policy choice/outcomes: information failures before a policy is introduced; government may lack information
- Policy may prove ineffective in changing behaviour

Law of Unintended Consequences

Unintended consequences – outcomes that were not foreseen and intended by the government action

- There may be at least one and often many unintended consequences – some may be good, but it is the bad ones that are a cause for concern
- It is impossible for the government to predict outcomes accurately for the economy – these are inevitable
- Unintended consequences can deepen any existing market failure

Examples of unintended consequences

- A minimum wage causes a reduction in non-wage benefits for workers
- An indoor smoking ban increases the use of environmentally-unfriendly patio heaters
- Tariffs to protect the steel industry increase costs for car makers and house builders
- Charging for plastic bags encourages a switch to canvas bag use, which could be worse for environment
- Targets for treating patients could lead to lower quality care
- Moral hazard from bail outs to banks after their risky behaviour

Arguments against government intervention in markets

If there is likely to be significant government failure after an intervention, there may be a ***case for no intervention***, especially if the market failure is not too severe:

- The price mechanism is very efficient and can promote innovation
- When resources are scarce, higher prices are potentially a good outcome
- Profit motive incentivises businesses and entrepreneurs

Arguments for government intervention in markets

There are many features an economy needs to function effectively where intervention is required:

- Allocation of property rights and legal system
- Provision of public goods
- Macroeconomic stability
- Measures to reduce inequality
- Rules about competition

Inaction by the government is possibly the biggest government failure

Alternative views of consumer behaviour

Rationality

An underlying assumption in economics is that **economic agents are rational**:

- Consumers aim to maximise their utility from consumption
- Workers aim to maximise their wages and other work benefits
- Firms aim to maximise profit
- Governments aim to maximise social welfare

In the ***real world***, it is often the case that these assumptions do not hold.

Rational consumer behaviour

Rational consumer behaviour: decision-making process that is based on making choices that maximise utility. This assumes:

- Consumers make all choices *independently*
- Consumers have fixed and *consistent preferences*
- Consumers have *full information*
- Consumers always make the *optimal choice* given their preferences

Irrational consumer behaviour

Irrational consumer behaviour: when people make systematic and persistent deviations from rational choice. This is because:

- Humans are emotional, impulsive and can lack self-control
- Humans are social and belong to many networks
- Humans can be altruistic, generous and forgiving
- Humans have limited time, energy and brain power
- Humans have regrets and also have a strong sense of loss aversion

Irrational behaviour: influenced by others

Consumers may be irrational because they are **influenced by others**:

- Peer pressure (can be negative and positive)
- Fads/fashion/trends
- Social networks
- Social norms & herd behaviour

Irrational behaviour: habitual behaviour and default bias

Consumers may be irrational because they follow patterns of **habitual behaviour** or stick to what they know or is easiest (**default bias**):

- Choosing the same dish off a restaurant menu
- Rolling over the renewal on car insurance
- Staying with the same bank account
- Renewing with current energy provider
- Stopping for coffee at same shop on the way to work
- Addictions/routines

Irrational behaviour: human limitations

Consumers may be irrational because of **weakness at computation**:

- Limited brain power and limited time to use it; decisions sometimes have to be made quickly; may use a 'rule of thumb' for speed
- Limited ability to calculate or absorb complex information
- Emotional responses
- Can be 'misled' by framing and/or anchoring effects

Irrational behaviour: risk aversion

There is evidence that humans are **risk averse**; rationality assumes that humans will have a *neutral attitude to risk*, but in practice they are more likely to prefer a certain reward over risking it for a bigger reward. Humans are also **loss averse**: we emphasise losses more than potential gains – losses can be twice as painful as a similar gain.

Irrational behaviour: time preference

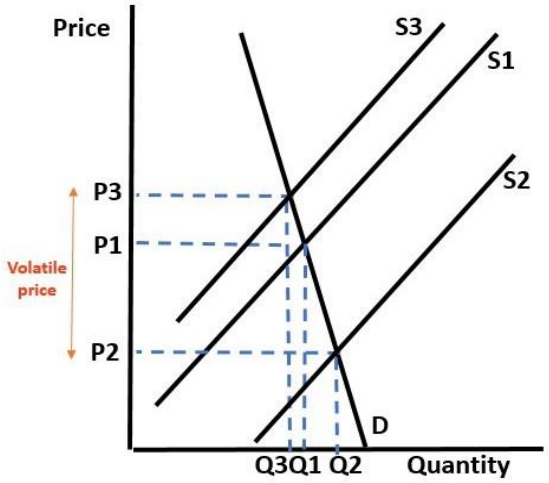
There is evidence that humans are **time-sensitive**; rationality assumes that humans have a *neutral attitude to intertemporal decisions,* but in practice they typically prefer a reward earlier than at a later date; a desire for instant rewards!

Unstable markets & price volatility

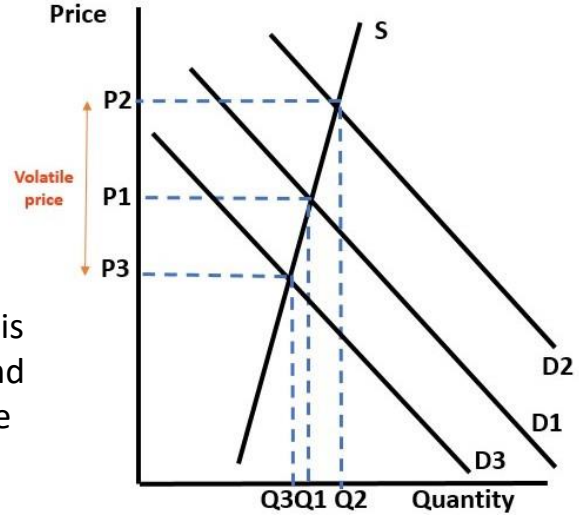
Unstable markets

Some markets have features that mean the price may be too high, too low or **too volatile** to achieve a good outcome for social welfare.
Governments can intervene with price controls and other policies to promote social welfare.

Causes of price volatility in markets



Price inelastic demand: when demand is price inelastic, any change in supply will have a big impact on price in the market.



Price inelastic supply: when supply is price inelastic, any change in demand will have a big impact on price in the market.

Time lag problems: time lags in supply, e.g. between planting a cereal crop and when has grown and ready to supply, can cause price fluctuations in a market.

Speculation – speculators can exacerbate changes in price making them more volatile, with boom-bust cycles.

Causes of price instability in markets

Key factors influencing demand:
- Globalisation
- Urbanisation
- Industrialisation
- Geopolitical events & pandemics

Short term influences:
- Speculation
- Fluctuating exchange rates
- Fluctuating interest rates

Cyclical factors influencing demand:
- Demand during growth/boom phase of cycle v recession
- Global growth cycle

Key factors affecting supply:
- Climate change
- Unpredictable weather
- Natural disasters
- Geopolitical events & pandemics

Problems with price volatility in markets

Unstable prices can cause problems for both *consumers and producers*, and there may be a case for government intervention.

For consumers:
- Unpredictable food & energy prices
- Reduces consumer confidence
- May cause poverty/hardship when prices rise rapidly

For producers:
- Unpredictable incomes
- May be forced to leave when prices are low; possible shortages
- May reduce investment and innovation; lower business confidence

Examples of markets that often have volatile prices

Oil and energy markets
Agricultural markets
Livestock & meat
Industrial metals
Precious metals
Fertilisers

A key issue with price volatility is that it is often present in markets for necessities and essential raw materials, affecting consumer budgeting and producer costs