

Government Microeconomic Intervention

A-Level Economics ■ Topic 3

A-Level Economics



What we will cover

- 1 Why markets fail
- 2 Externalities
- 3 Taxes & subsidies
- 4 Price controls & buffer stocks
- 5 Regulation & government failure
- 6 Inequality



pollution spills onto others



Why markets fail

Market failure is when a free market does not **allocate** resources efficiently. A free market often gives a good result – but not always, and there are several reasons:

externalities – costs/**benefits** on others

public goods – free-rider problem

merit & demerit goods – misjudged

monopoly power – cuts **output** , raises price

inequality & asymmetric information



demerit goods are over-consumed

Public, merit and demerit goods

public good

non-rivalry and **non-excludability** : non-payers cannot be shut out, so nobody pays and the free market supplies **none** of it – street lighting, defence

merit good

worth more than people realise, so it is **under-consumed** – education, vaccination

demerit good

worse than people realise, so it is **over-consumed** – cigarettes, gambling

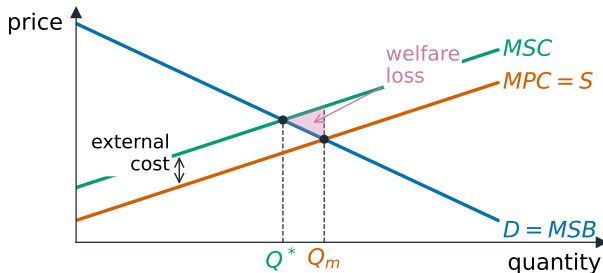
Merit and demerit goods are both **information failure** : people misjudge the benefit or the harm. The public good is different – there the problem is that *charging* is impossible.

Negative externality

A **negative externality** : **social cost** (MSC) exceeds **private cost** (MPC).

Ignoring the external cost, the market **over-produces** at Q_m ; the triangle is the welfare loss.

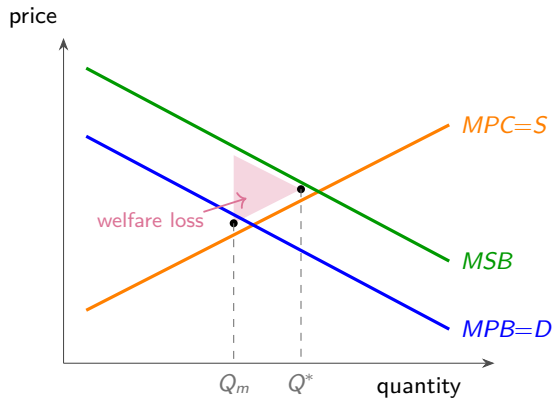
Negative externality, in detail



$$MSC > MPC \Rightarrow Q_m > Q^* \cdot \text{DWL from over-production}$$

A **negative externality** : **social cost** (MSC) exceeds **private cost** (MPC), so the market over-produces.

Positive externality

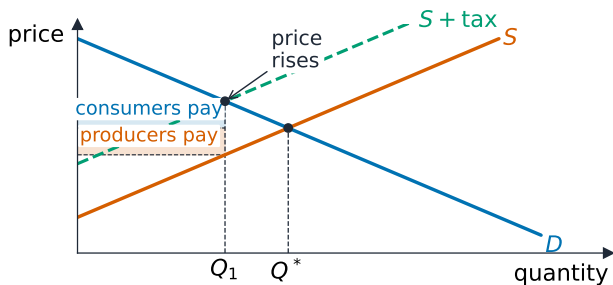


A **positive externality** : **social benefit** (MSB) exceeds private benefit (MPB).

Buyers ignore the benefit to others, so the market **under-produces** at Q_m (e.g. vaccination).



Indirect taxes and incidence



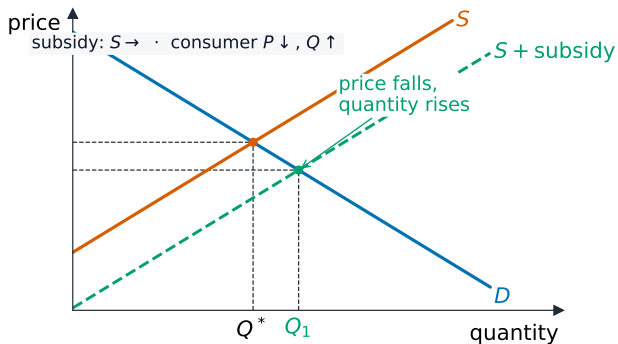
tax: S shifts left · incidence split
consumers/producers

An **indirect tax** shifts supply left, raising price, cutting quantity.

- demand **inelastic** → consumer pays most
- demand **elastic** → producer pays most

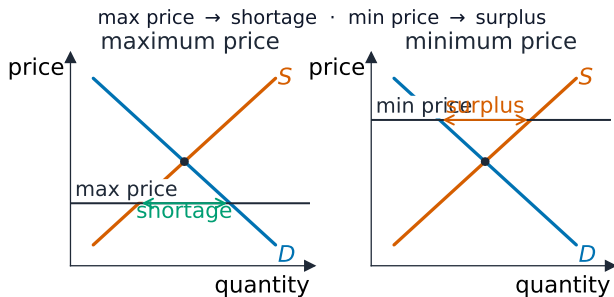
The **incidence** is who really pays.

Subsidies



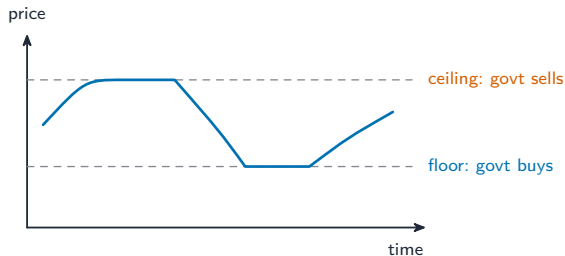
A **subsidy** is a payment to producers – it lowers costs, shifts supply right, lowers the price and raises the quantity. Used for **merit goods** and goods with positive externalities.

Maximum and minimum prices



- **maximum price** (below equilibrium) → **shortage** (e.g. rent control)
- **minimum price** (above equilibrium) → **excess supply** (e.g. minimum wage)

Buffer stocks



A **buffer stock** steadies a farm price inside a band:

- price hits the **floor** → government **buys** & stores
- price hits the **ceiling** → government **sells** from store

Other tools and government failure

regulation

bans, limits, standards

state provision

free at point of use

permits

cap pollution, trade

Government failure : intervention makes things *worse* – poor information, high cost, a **black market** , or political motives.

Permits, and why governments fail too

tradable permits

set a **total cap** on pollution and issue permits; firms that pollute less can **sell** their spare permits

why it works

the cap fixes the quantity, and the market finds the **cheapest** places to cut

regulation

direct rules and standards – certain, but blunt and expensive to enforce

state provision

the government supplies the good itself – and must guess how much is wanted

government failure

intervention leaves society worse off – through poor information, unintended consequences, high administration costs, or **decisions made for political rather than efficiency reasons**

Every intervention question wants the same two halves: how it corrects the failure, **and** how it might fail itself.

Income and wealth inequality

income – a flow

money over a period

wealth – a stock

assets owned at a point

Redistribution via a **progressive tax**, **benefits** & state provision – but a **trade-off** : too much may weaken the incentive to work.



Markets can leave income highly unequal

Inequality, and information the market cannot fix

inequality

the market rewards those who **own resources**, so it can leave some people with too little to live on

income against wealth

income is a flow per period; **wealth** is a stock of assets. Wealth is far more unequally held

asymmetric information

one side of a deal knows more – a used-car seller knows the faults, the buyer does not

adverse selection

the informed side self-selects, so only bad cars reach the market

moral hazard

insurance changes behaviour, because the insured no longer bears the cost

Both are **market failures**, not market imperfections: the market clears, and the outcome is still inefficient.

Income and wealth, and the policies that move them

income

a **flow** – earned per period: wages, interest, profit, rent

wealth

a **stock** – assets owned at a point in time

the link

wealth produces income (savings earn interest), and income can be saved to build wealth – so **the two are connected**

a progressive tax

takes a larger **percentage** from higher incomes than from lower

benefits

also called **transfer payments** – money paid by government to those on low incomes

the incidence of a tax

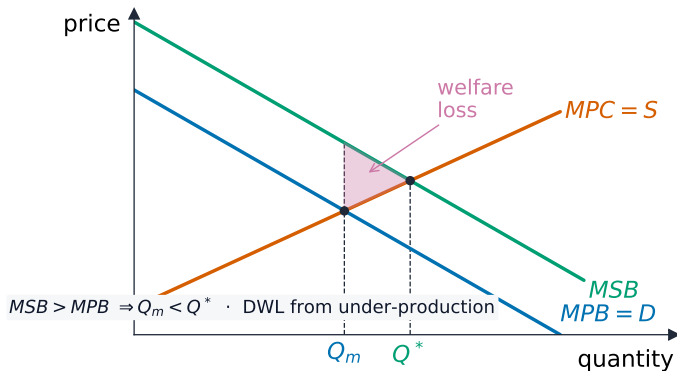
who really pays: with inelastic demand, most falls on the **consumer**

Wealth is far more unequally held than income, and it is harder to tax because it can be moved or held in untaxed forms.

Exam tips

- Define **market failure** as a misallocation of resources, then name the type (externality, public good, information gap).
- On an **externality** diagram, mark the divergence of private and social cost/benefit and shade the welfare loss.
- Evaluate each intervention (tax, subsidy, regulation, tradable permits) with one advantage and one drawback.
- Show that **tax incidence** depends on elasticity – the more inelastic side bears more of the tax.

With a positive externality



With a positive externality, social benefit (MSB) is above private benefit (MPB), so the market under-produces at Q_m instead of the social optimum $\hat{Q}$



Worked example – taxing an externality

A factory pollutes. Explain how an indirect tax can correct the market failure.

- Pollution is a **negative externality** : MSC lies **above** MPC.
- The market sets $MPC = MPB \Rightarrow$ **over-production** above the social optimum.
- A tax **equal to the external cost** shifts supply left, raising private cost to the social cost.
- The firm now **internalises** the externality $\Rightarrow$ **output falls to the social optimum**.

Set the tax **equal to the marginal external cost at the optimum**, not at the free-market output. The problem is over-production; the fix is to **make the polluter pay**.

Topic 3 – key takeaways

1

Market failure

externalities, public/merit goods,
monopoly

2

Externalities

negative over-produces; positive
under-produces

3

Tools

tax, subsidy, price controls, buffer
stock

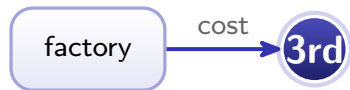
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Government failure

intervention can make things
worse

Check yourself

- 1 Does a negative externality over- or under-produce?
- 2 Who pays most of a tax if demand is inelastic?
- 3 A maximum price below equilibrium causes what?
- 4 Income is a flow – what is wealth?



Answers 1. over-produces 2. consumers 3. a shortage 4. a stock of assets owned