A-LEVEL ECONOMICS • EXERCISE SHEET

3.2 Government microeconomic intervention: methods

Name: ____________ Class: ________ Date: __________ **Total: 25 marks**

KEY WORDS subsidy 补贴 • indirect tax 间接税 • minimum price 最低限价 • buffer stock 缓冲库存 • stock 存量

Objective

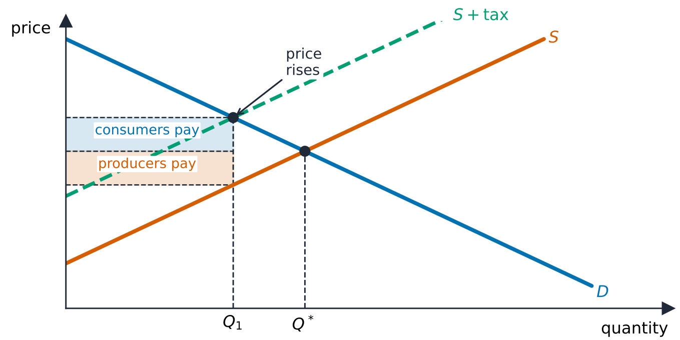
Build the skills to answer exam questions on the **methods and effects of government intervention** 政府干预的方法与效果 — **indirect taxes** 间接税, **subsidies** 补贴, **maximum and minimum prices** 最高/最低限价, **buffer stocks** 缓冲库存, **regulation** 管制, and **government failure** 政府失灵.

You must be able to:

- draw the effect of an indirect tax and a subsidy
- explain maximum/minimum prices and the **incidence of a tax** 税收归宿
- analyse government failure

1 Worked examples

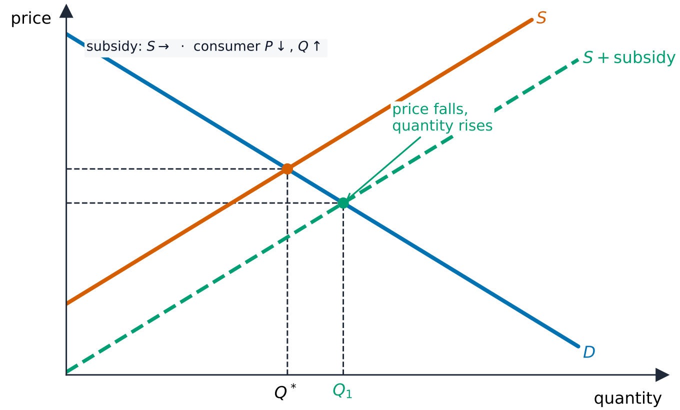
■ Taxes, subsidies and price controls



tax: S shifts left · incidence split consumers/producers

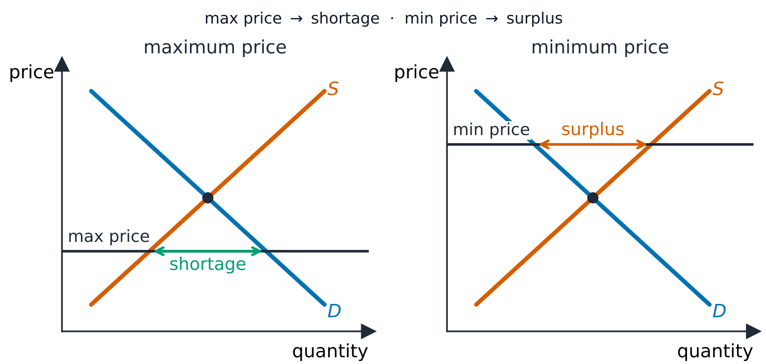
The tax burden is shared between consumers and producers, depending on elasticity

- **Indirect tax** 间接税: shifts supply **left** → higher price, lower quantity (used on demerit goods).
- **Subsidy** 补贴: shifts supply **right** → lower price, higher quantity (used on merit goods).



A subsidy: supply shifts right, price falls and quantity rises

- **Max price** (below equilibrium) → **shortage**; **min price** (above equilibrium) → **surplus**.



Price controls: a maximum price (shortage) and a minimum price (surplus)

- **Tax incidence:** if demand is inelastic, consumers pay most of the tax.
- **Government failure** 政府失灵: intervention makes resource use worse (e.g. a black market).

> **Answer shapes:** an **Explain** [**up to 8**] answer should use a labelled diagram (AO3); **Discuss** [**12**] adds a judgement (AO4).

2 Practice

2.1 Define the term *indirect tax*. [2]

2.2 State the effect of a **maximum price** set below the equilibrium price. [1]

2.3 State who bears most of an indirect tax when demand is **inelastic**. [1]

3 Exam-style questions

3.1 A government subsidy to producers will: [1]

- **A** shift supply left, raising the price
- **B** shift supply right, lowering the price
- **C** shift demand right, raising the price
- **D** have no effect on price

3.2 Using a diagram, explain how an indirect tax on a demerit good affects its price and quantity. [8]

3.3 Discuss whether an indirect tax is the best way for a government to reduce consumption of a demerit good. [12]

Solutions

Economics answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

2.1 a tax on spending that raises a firm's costs and so shifts the supply curve to the left (2 for a clear definition; 1 for a partial idea).

2.2 a shortage (excess demand), because quantity demanded exceeds quantity supplied (1).

2.3 consumers bear most of the tax (1).

3.1 B. A subsidy shifts supply right and lowers the price.

3.2 *[8]* AO1 1 + **AO3 diagram up to 4** (supply shifts up to $S + \text{tax}$, new higher price, lower quantity) + AO2/AO3 up to 3 — the tax raises producers' costs → supply shifts left → price rises and quantity falls → consumption of the demerit good falls; the burden splits by elasticity.

3.3 *[12]* AO1/AO2/AO3 up to 8 + AO4 up to 4. **For tax:** cuts consumption, raises revenue, internalises the external cost. **Against:** if demand is inelastic (addiction), consumption falls little; it is regressive, and a black market may form. **Alternatives:** regulation, education, advertising bans. Judgement: a tax helps but works best combined with information and regulation — its success depends on the PED of the good.