

Cambridge IGCSE · Economics 0455 · Notes

Mixed economic system

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Read first: [The role of markets in allocating resources](#), [Price determination](#), [Price changes](#), [Market failure](#)

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What you need to know

By the end of this topic you should be able to:

1. **Define a mixed economic system.** Resources are allocated partly by the price mechanism, through privately owned firms, and partly by the government, through the public sector.
2. **Draw and explain diagrams for three kinds of government policy measure**, and define each one:
 - **maximum and minimum prices**, in a market for a product, in the labour market (a minimum wage) and in the foreign exchange market;
 - **indirect taxes**;
 - **subsidies**.
3. **Explain what other measures do**, without diagrams: **regulation** (laws and rules), **privatisation** and **nationalisation**, and the government **providing goods and services directly**.
4. **Judge how well government intervention fixes the drawbacks of a market economic system**, including why it sometimes fails.

0455 has no Core/Extended split, so all of this is for everyone. The causes of market failure (public goods, merit and demerit goods, external costs and benefits, monopoly, factor immobility) are in the previous topic; this topic is about what a government does about them.

Understand it

What makes an economy "mixed"

Every economy has to answer three questions: **what** to produce, **how** to produce it, and **for whom**. There are three ways of deciding.

Economic system	Who decides	How
Market economy	Households and private firms	The price mechanism: demand and supply set prices, and firms follow profit

Economic system	Who decides	How
Planned economy	The government	Plans, targets and state-owned firms
Mixed economy	Both	Private firms use the price mechanism; the government uses spending, taxes, laws and ownership

Almost every real economy is mixed; they differ in **how much** the government does. In a mixed economy:

- **The private sector** is the part owned by individuals and shareholders. Here the three questions are settled by buyers and sellers. If more people want phone cases, shops sell out, the price climbs, making cases becomes more rewarding and firms switch resources into it. A firm that wastes resources is undercut by rivals, and goods go to those who can pay for them.
- **The public sector** is the part owned or run by the government. Ministers and officials ask a different question: what is best for the country overall, counting harm or gains to bystanders that a firm would never pay for or be paid for, and whether poorer people can get what they need. They act by owning firms, by raising money in taxes and spending it (on schools, roads, defence), and by passing laws, including laws that fix prices.

So banks, shops, restaurants and insurance companies are usually private, while defence, courts, police and tax collection are public. Healthcare, schools, energy and transport are often supplied by both.

An economy becomes **more mixed** (moving away from a planned system) when the government sells state firms, lets private firms enter and compete, or removes controls. It moves the other way when the government takes over firms or controls more prices.

Why governments step in

A market economy has real strengths: choice, incentives to work and invent, and efficient firms driven by competition. Its drawbacks are the reason the government intervenes:

Drawback of a pure market	What the government can do
Public goods are not supplied (free riders, no profit)	Provide them itself, paid for by taxes
Merit goods are under-consumed	Subsidise them, provide them free, make them compulsory, inform people
Demerit goods are over-consumed	Tax them, ban them or limit who can buy them, set a minimum price
External costs are ignored	Tax the activity, set limits on pollution by law
Monopolies charge high prices	Cap their prices, block mergers, own the firm
Low-paid workers are exploited	Set a minimum wage

Drawback of a pure market**What the government can do**

Essential goods are too dear for the poor

Set a maximum price, subsidise them, give benefits

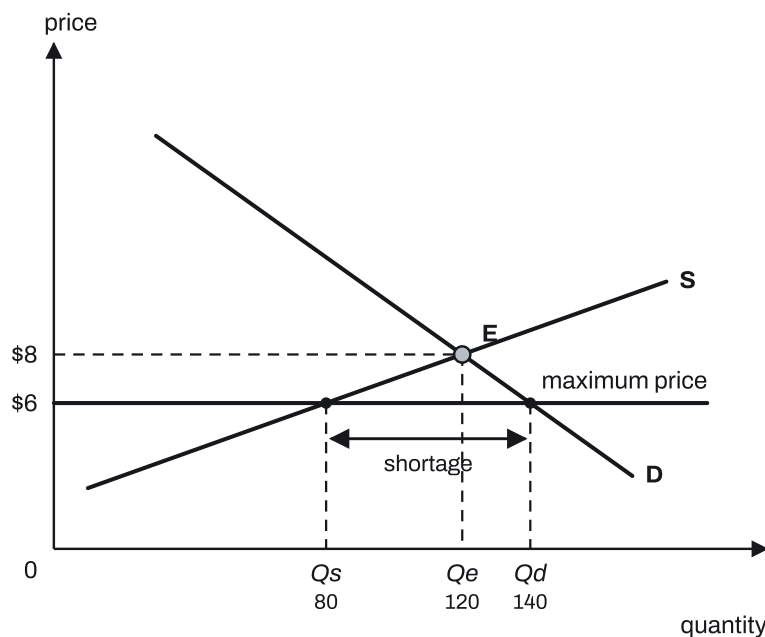
Incomes are very unequal

Progressive taxes and welfare benefits

The rest of this section explains each tool.

Maximum prices

A **maximum price** (price ceiling) is a legal limit on how high a price can be. Sellers may charge that price or less, never more. To have any effect it must be set **below** the equilibrium price.



Cooking-gas refills sell at \$8 in a free market, with 120 thousand bought a week. The government decides \$8 is too much for poorer families and sets a maximum price of \$6.

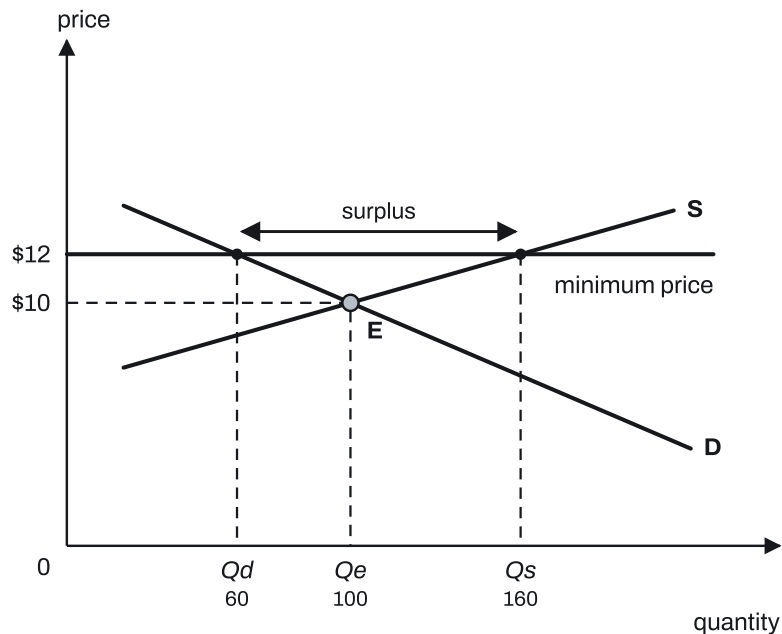
- At \$6, the quantity **demanded rises** to 140 thousand: it is cheaper, so more people want it (a movement along the demand curve).
- The quantity **supplied falls** to 80 thousand: at the lower price, supplying is less profitable (a movement along the supply curve).
- So there is a **shortage** (excess demand) of $140 - 80 = 60$ thousand refills a week.

Neither curve shifts. The price is simply not allowed to rise to where they cross.

What follows: those who get a refill pay less, which helps poorer households. But fewer refills are sold (80 thousand rather than 120 thousand), so some people get nothing. Queues form, sellers may choose who to serve, and an **informal (black) market** can appear where refills are resold above \$6. Firms earn less, so they may cut quality or leave the market. A maximum price set **above** equilibrium, say \$10 here, does nothing: the market price of \$8 is already below it.

Minimum prices

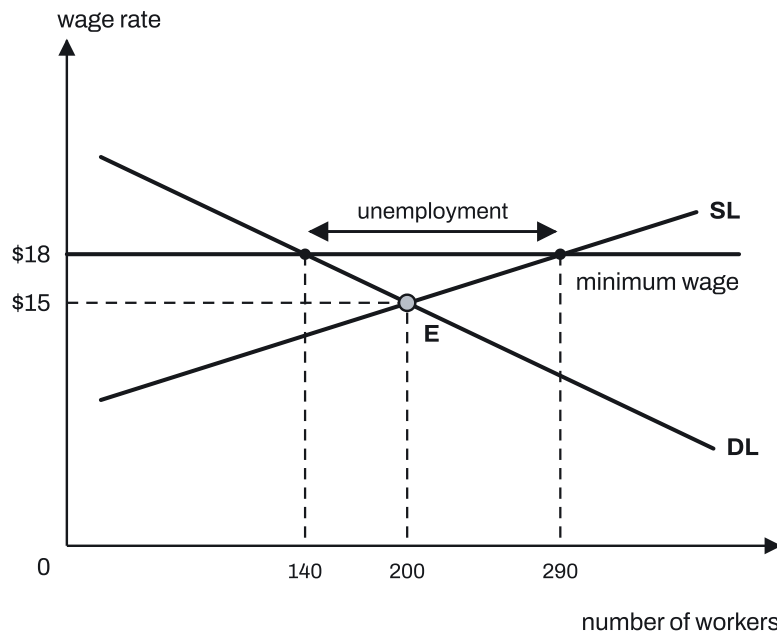
A **minimum price** (price floor) is a legal limit on how low a price can go. To have an effect it must be set **above** equilibrium. It is used to protect producers' incomes (farmers) or to discourage a demerit good (a minimum price per unit of alcohol).



With a minimum price of \$12 on sacks of rice, farmers want to supply 160 thousand sacks but buyers want only 60 thousand, a **surplus** (excess supply) of $160 - 60 = 100$ thousand sacks. Farmers who sell get more per sack, but the surplus has to go somewhere: the government may have to buy it (100 thousand sacks at \$12 would cost \$1.2m), store it or destroy it, which wastes resources. Consumers pay more.

Minimum wages: a minimum price for labour

In the labour market the "price" is the **wage rate**. Firms demand labour and workers supply it. A **national minimum wage** is a minimum price for labour, set above the equilibrium wage.



With the equilibrium at \$15 an hour and 200 cleaners, a minimum wage of \$18 means:

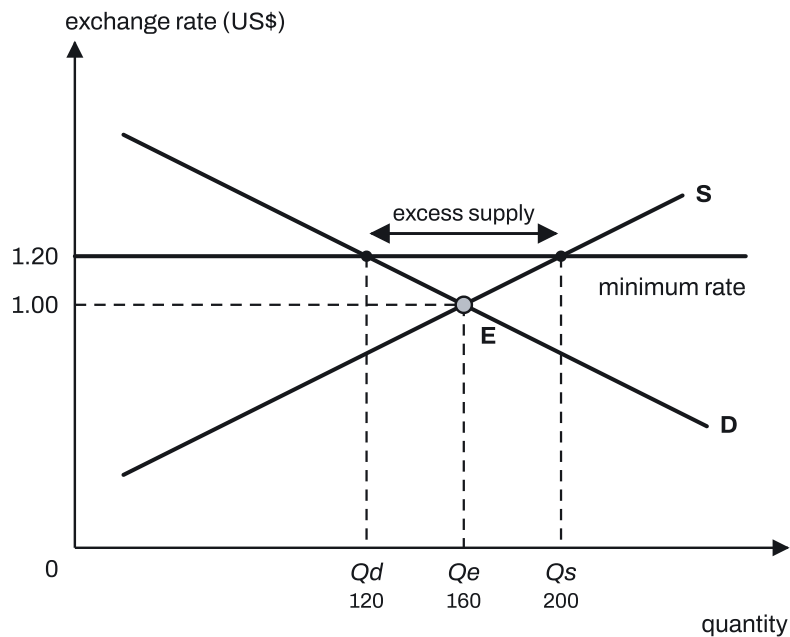
- the cleaners who keep their jobs earn more, which reduces poverty and exploitation;
- employers now want only 140 cleaners, so 60 fewer jobs than before;
- 290 people want the work at \$18, so $290 - 140 = 150$ are unemployed (excess supply of labour).

How many jobs go depends on how much firms can pass the cost on and whether higher pay makes workers more productive. A minimum wage below the equilibrium wage has no effect.

Maximum and minimum prices for a currency

In the foreign exchange market, the "price" is the **exchange rate**: the price of one currency in terms of another. A government (through its central bank) can hold the rate at a level instead of letting demand and supply set it.

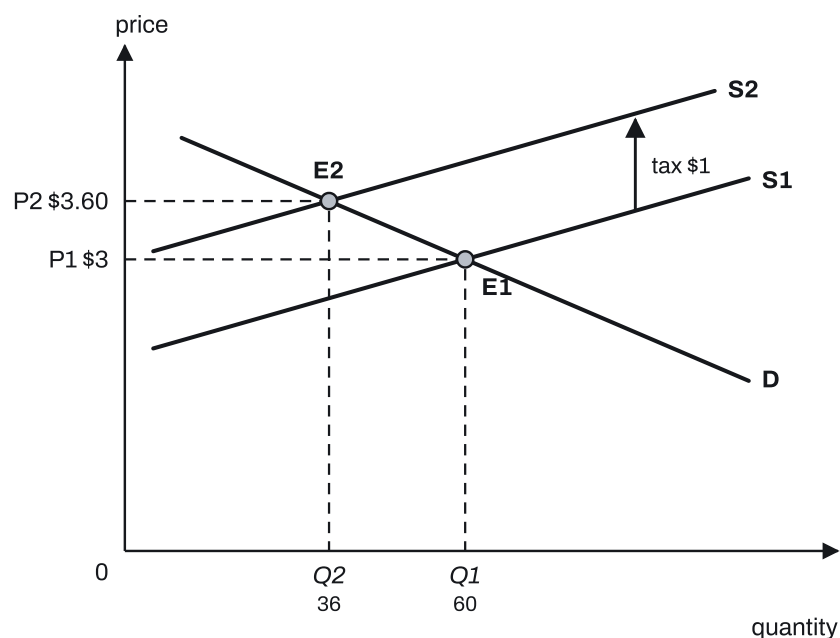
- A **minimum exchange rate above equilibrium** creates an excess supply of the currency. To stop the rate falling, the central bank must **buy** the extra, using its reserves of foreign currency. It may be done to keep imports cheap and inflation down, but the reserves can run out.
- A **maximum exchange rate below equilibrium** creates an excess demand for the currency. The central bank must **sell** extra of its own currency, or ration it. It keeps exports cheap abroad, but it can lead to an informal market where the currency trades at a higher price.



The diagram works like any other price floor. The free-market rate is US\$1.00, with 160 million units of the currency changing hands. The central bank sets a minimum of US\$1.20. At that rate, holders offer 200 million units for sale but buyers want only 120 million, an excess supply of $200 - 120 = 80$ million units. To hold the rate, the central bank buys those 80 million units, paying $80 \times 1.20 = 96$, so US\$96m of its reserves. A maximum rate is drawn the same way, below equilibrium, with the gap on the demand side.

Indirect taxes

An **indirect tax** is a tax on spending, collected from the seller: for example a sales tax, VAT, or a fixed amount per unit (a specific or unit tax). For the firm it is a **cost of supplying** each unit, so **supply decreases**: the supply curve shifts **left** (upwards, by the amount of the tax).



A \$1 tax per can of energy drink:

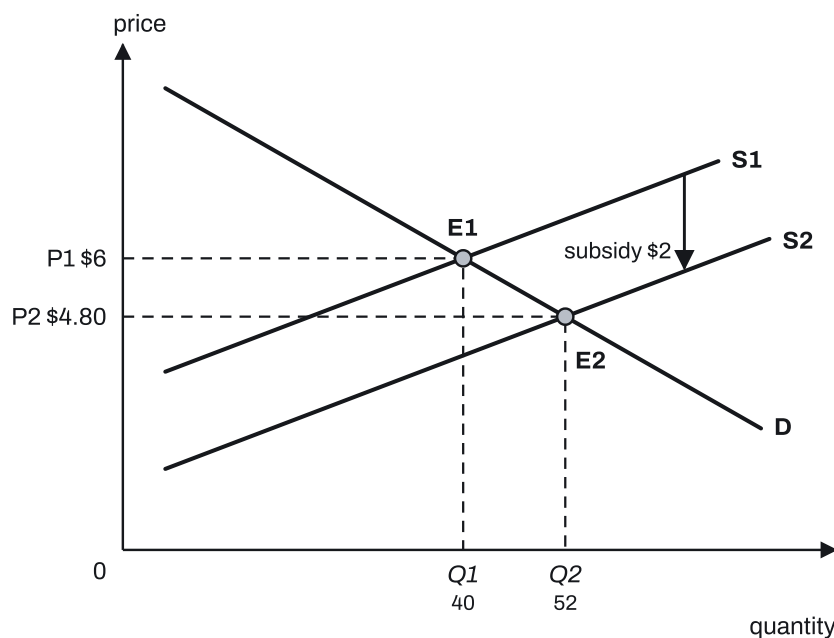
- raises the price from \$3 (P1) to \$3.60 (P2), so buyers pay \$0.60 more;
- cuts the quantity bought from 60 thousand (Q1) to 36 thousand (Q2) cans a week;
- leaves producers with $3.60 - 1 = 2.60$, so \$2.60 a can, \$0.40 less than before;
- raises $1 \times 36\,000 = 36\,000$, so \$36,000 a week in tax revenue.

The price rises by **less than the tax** because the rest is paid by producers. How much consumption falls depends on the **price elasticity of demand**: if demand is inelastic (addictive products, few substitutes), the price rises nearly by the full tax, consumption hardly falls, and the tax mainly raises revenue. If demand is elastic, consumption falls a lot.

Governments use indirect taxes to cut consumption of demerit goods and products with external costs, and to raise revenue. The drawbacks: they take a bigger share of a poor household's income than a rich one's (they are **regressive**), they can push buying into informal markets, and when demand is inelastic they barely change behaviour.

Subsidies

A **subsidy** is a payment from the government to producers (sometimes to consumers) to lower the cost of making a product or its price. It **lowers costs**, so **supply increases**: the supply curve shifts **right** (downwards, by the subsidy per unit).



A \$2 subsidy per solar lamp:

- lowers the price from \$6 (P1) to \$4.80 (P2), so buyers pay \$1.20 less;
- raises the quantity from 40 thousand (Q1) to 52 thousand (Q2) lamps a month;
- means producers receive $4.80 + 2 = 6.80$, so \$6.80 a lamp including the subsidy;
- costs the government $2 \times 52\,000 = 104\,000$, so \$104,000 a month.

Subsidies are used to encourage merit goods and products with external benefits (public transport, clean energy, vaccinations), to keep essentials affordable, and to protect jobs in an industry. The drawbacks: there is an **opportunity cost** (the money could have gone to hospitals or schools, or taxes must rise), firms may come to **rely** on the subsidy and stop cutting costs, the subsidy may not be passed on as a lower price, and it is hard to remove later.

Regulation

Regulation means laws and rules that control what firms and consumers may do. There is no price change and no diagram; the rule works directly on behaviour. Governments can use it to:

- **limit external costs**: setting a maximum amount of smoke a factory may release, or banning building on wetlands;
- **stop monopolies abusing their power**: capping the charges of a single airport operator, or blocking a merger that would remove competition;
- **protect buyers who know less than sellers**: requiring food labels to list ingredients, or safety tests for toys;
- **cut consumption of a demerit good**: banning sales of alcohol to under-18s, banning advertising of gambling, banning a harmful product outright;
- **make people consume a merit good**: requiring motorcyclists to wear helmets, or children to attend school up to a certain age;
- **protect workers**: minimum wages, limits on working hours, safety rules.

Regulation is quick and clear, and it costs the government little directly. But it must be **enforced** (inspectors, courts, fines), and people may break it where they are unlikely to be caught. A ban can drive a product into an **unofficial market** where it is not taxed or checked for safety, and strict rules add to firms' costs, which can raise prices or cost jobs.

Privatisation and nationalisation

Privatisation is moving a firm or industry from the public sector to the private sector, usually by selling it.

Nationalisation is the reverse: the government takes ownership of a private firm or industry.

Arguments for privatisation, which are also arguments against nationalisation:

- A private owner has the **profit motive**, so it has a reason to cut costs and waste and to improve products.
- If the market is opened to rivals, **competition** can lower prices and widen choice.
- The sale brings the government **revenue**, and it no longer has to cover the firm's losses from taxes.
- Decisions are made on commercial grounds, not to win votes.

Arguments against privatisation, which are also arguments for nationalisation:

- A private owner may **ignore external costs and benefits** and the needs of people who can't pay, for example by closing a loss-making bus route that a remote town depends on.

- In industries where one firm is most efficient (a single water or rail network), privatisation can create a **private monopoly** that raises prices.
- A private firm may **cut jobs** or quality to raise profit.
- The government can plan **long-term investment** and keep essentials affordable.

Direct provision

The government can also **produce and supply goods and services itself**, usually free or cheap at the point of use and paid for from taxes. This is how most **public goods** (defence, street lighting, flood defences) are supplied, since private firms can't make a profit from them. Governments also provide **merit goods** directly, such as state schools and public hospitals, so that everyone can use them whatever their income.

The costs: it needs tax revenue, so there is an **opportunity cost**; a service that is free can be over-used, leading to waiting lists; and without competition or profit, state providers may be less efficient or offer less choice.

Does intervention work?

Government intervention can correct market failure, but it can also fail. **Government failure** is when intervention leads to a worse allocation of resources than before, or costs more than it achieves. The reasons fall into a few groups:

- **Not enough information.** The government may not know the size of an external cost, how elastic demand is, or where the equilibrium is, so it sets the tax, subsidy or price control at the wrong level.
- **Side effects.** Price controls create shortages and surpluses; taxes and bans create informal markets; subsidies create dependence.
- **Weak incentives.** High taxes can discourage work and enterprise; state firms without competition may waste resources.
- **Time and cost.** Decisions take time to agree and put in place; enforcing rules costs money; every dollar spent has an opportunity cost.
- **Other motives.** Politicians may favour popular measures or certain groups, and corruption can divert spending.

So whether intervention works is a question of **"it depends"**: on the measure chosen, the size of the problem, how people respond (elasticity), and how well the government knows and runs things. That is the judgement a Discuss question wants.

Key facts and formulas

This topic has no formula list in the exam. "Learn it" means you must remember it.

Formula or fact	Status
Mixed economic system: resources allocated by both the private sector (price mechanism) and the public sector (government)	Learn it
Maximum price: set below equilibrium to have an effect; shortage = $Q_d - Q_s$ at the maximum price	Learn it
Minimum price (and minimum wage): set above equilibrium to have an effect; surplus = $Q_s - Q_d$ at the minimum price	Learn it
Price controls do not shift the demand or supply curve	Learn it
Indirect tax: supply shifts left by the tax per unit; price rises (by less than the tax), quantity falls	Learn it
Subsidy: supply shifts right by the subsidy per unit; price falls, quantity rises	Learn it
tax revenue = tax per unit $\times$ quantity after the tax	Learn it
cost of a subsidy = subsidy per unit $\times$ quantity after the subsidy	Learn it
Producer receives: price paid – tax per unit; or price paid + subsidy per unit	Learn it
Privatisation: public $\rightarrow$ private sector; nationalisation: private $\rightarrow$ public sector	Learn it
Government failure: intervention that makes the allocation of resources worse	Learn it

How to do it

We have tagged 56 questions on this topic (2021–2025): 24 multiple choice on Paper 1 and 32 structured questions on Paper 2. Counted by the parts about this topic, they came up this often. Seven Paper 2 questions have two parts on it, so there are 63 parts.

Question type	Question parts
Multiple choice (concept)	24
Discuss (6 or 8 marks)	20
Explain (2 or 4 marks)	9
Analyse (5 or 6 marks)	5
Draw a diagram (4 marks)	3

Question type	Question parts
Identify (2 marks)	2

1. Multiple choice (concept) (24 question parts)

1. **Decide which tool is involved:** a price control, a tax, a subsidy, a rule, ownership, or the government supplying something itself.
2. **For a diagram, ask which curve moves:** taxes and subsidies move **supply**; information campaigns and advertising bans move **demand**; price controls move **nothing**.
3. **Check the direction:** tax, left; subsidy, right; maximum below equilibrium, shortage; minimum above equilibrium, surplus.

Variations you will meet:

- **Taxes and subsidies on a diagram** (7 parts): decide which curve moves and which way. A tax on sellers moves supply left; a subsidy to sellers moves it right. If the government also changes what buyers want (a warning campaign, an advertising ban), demand moves as well, so two curves shift. Asked what a measure does to a **private** cost, think of the person paying: a subsidy lowers what the user of that product pays, a tax raises it. Asked for a firm's revenue with a subsidy, multiply the price the firm gets (what the buyer pays plus the subsidy per unit) by the new quantity. Asked about the moment just after supply shifts, before the price changes, compare the new quantity supplied with the quantity demanded at the old price.
- **Why a government intervenes** (6 parts): match the measure to a market failure from the previous topic. Governments supply what firms can't charge for (public goods), encourage what people under-use (merit goods, for example with a subsidy), and hold back what people over-use (demerit goods). An option saying the government supplies a harmful product, or intervenes simply to earn money, is almost never right.
- **Price controls** (4 parts): find the equilibrium first (in a table, the row where the two quantities match), then see which side of it the control sits. Below with a maximum, or above with a minimum: work out the gap. On the wrong side: nothing happens. To compare measures, trace each one's effect on price **and** quantity separately; only a binding maximum price pushes both down.
- **Choosing the measure for an aim** (4 parts): ask which way the aim needs consumption to go. To get less of something, make it dearer or restrict it; to get more, make it cheaper or free. Where two products are involved, treat each on its own. Know the names of the tools: money paid to producers to cut their costs is a subsidy, and a legal limit on prices is a form of regulation, a direct rule rather than a change in government spending, taxes or interest rates.
- **Features of a mixed economy** (3 parts): all three of prices, private firms and a state sector are present. Services where firms can charge each customer and make a profit are the likeliest to be private; justice, defence and tax collection stay with the state. An economy moves towards the market end when it gives private firms more room, and towards the planned end when the state takes on more.

2. Discuss (6 or 8 marks) (20 question parts)

The 8-mark parts (12) are levels-marked: Level 3 (6–8) needs **both sides developed** and a judgement. The 6-mark parts in the Section A case study (8) give up to 4 marks for each side, a mark per developed link, so aim for **two developed points each side** in both. A point used on one side can't score again on the other just by reversing it; a genuinely different reason can.

The parts ask about three kinds of thing:

- **A specific measure** (12 parts): whether to ban, tax, subsidise, set a maximum or minimum price on, or regulate something.
- **Public or private provision** (4 parts): privatisation, or whether the public or private sector should supply a service, or charges lower prices.
- **Intervention in general** (4 parts): whether government intervention, or a mixed economic system, benefits people or firms.

Plan:

1. **Name the problem** the measure is meant to solve, in one sentence: which market failure or drawback, and what the free market does wrong.
2. **For: two developed chains** showing how the measure fixes it: measure → what happens to price, cost, supply or behaviour → consumption or output moves in the right direction → a named gain.
3. **Against: two developed chains** showing why it may not work, or may cause new problems.
4. **Judgement**: what the answer depends on, and which side is stronger in the case in the question.

To find your chains, ask these questions of the measure. Each can give a point for either side, depending on the product.

1. **Does it act on the cause?** A tax works on price, so it suits over-use driven by cheapness; information suits under-use driven by ignorance; a ban removes the activity altogether.
2. **How will people respond?** Think elasticity: an addictive product or one without substitutes barely responds to a price change. Will people switch to something just as harmful, or to something better?
3. **What are the side effects?** For price controls: a shortage or surplus, queues, informal markets, lower quality. For bans: informal markets and enforcement costs. For subsidies: dependence and weaker pressure to cut costs.
4. **Who gains and who loses?** Poor households (a tax on a basic good hits them hardest; a maximum price or subsidy helps them), producers and their workers (jobs, profits), the government's budget.
5. **What is the opportunity cost?** What else the money, or the enforcement effort, could have done.
6. **Is there a better tool?** A tax that raises revenue instead of a ban; a subsidy instead of a maximum price, which lowers price without cutting supply.

For **public versus private** questions, run the ownership arguments above: profit motive and competition against access, external effects and natural monopoly. For **intervention in general**, set the market drawbacks the government can fix (the table in "Understand it") against the causes of government failure.

3. Explain (2 or 4 marks) (9 question parts)

A mark for **identifying** each point and a mark for **explaining** it. "Explain two ..." (4 marks) needs two separate points, each developed once.

Variations you will meet:

- **Ways to correct a market failure** (5 parts): to raise consumption of a merit good, to cut consumption of a demerit good, to lower the price of a product, to reduce market failure in general, or plans in a source to cut external costs. Name a measure (1), then say what it changes and so what happens to consumption (1). Use two **different** tools: a subsidy and a rule, not two kinds of subsidy.
- **Why a measure is used** (2 parts): why a government controls the price of essentials, or subsidises food production. Give the aim (1), then why that aim matters for this product (1).
- **How a mixed economy makes resource decisions** (1 part): a mixed economy has two deciders, so an answer about only one of them can't reach full marks. For each, say **what guides** it and **how it acts**. Start with the state if you like: it judges by what is best for the whole country, including effects on bystanders, and acts through ownership, laws and its budget. Then the private side: rising and falling prices tell firms where the rewards are, and the chance of profit pulls resources there. Use one short example for each, such as state-run primary schools and privately run cafés.
- **Reasons to privatise** (1 part): raise revenue from the sale, make the firm more efficient through the profit motive, bring in competition, stop tax money covering its losses. Each reason needs its "because".

4. Analyse (5 or 6 marks) (5 question parts)

A mark per link in a chain, so write **two or three developed chains**, starting with a definition.

1. **Define** the key term (market failure, or the measure).
2. **One paragraph per chain**, each link saying why the next follows.
3. **End each chain on the result**: more of a merit good consumed, less of a demerit good, a lower price, sustained output.

Variations you will meet:

- **How regulation reduces market failure** (1 part): use **only** laws and rules, not taxes or subsidies. Take a chain per kind of failure from the regulation list in "Understand it": the rule → what it stops or forces → how that moves consumption or output towards what is best for society. For example, a legal limit on a factory's smoke → the firm must fit filters or produce less → less of the external cost falls on people nearby. Two or three such chains (pollution limits, monopoly price caps, labelling, age limits, compulsory use, worker protection) are enough.
- **Why a government may intervene** (1 part): pick two or three rows of the "Why governments step in" table and turn each into a chain: what the free market gets wrong → why → what the government does → what improves. For example: a single bus company on an island route can charge what it likes → passengers have no alternative → the government caps fares → more people can afford to travel. Three short chains beat a long list, which earns little.

- **How to encourage consumption of merit goods** (1 part): subsidy → lower cost → lower price → more bought; free state provision; information campaigns; making it compulsory.
- **Regulating an industry to keep growth going** (1 part), such as limits on how much can be taken from a natural resource so there is some left for the future.
- **Using a diagram for a subsidy** (1 part, 5 marks): the diagram marks are as in Draw below, plus one for the written link: lower costs → more supplied → lower price and more traded.

5. Draw a diagram (4 marks) (3 question parts)

All three were price controls: a maximum price (twice) and a minimum price. The marks go for:

1. **Axes** labelled price and quantity (1).
2. **Curves** labelled D and S (1).
3. **The control** drawn on the correct side of equilibrium, and labelled: a maximum **below**, a minimum **above** (1).
4. **The quantities demanded and supplied** at that price marked on the quantity axis (1). Label the gap "shortage" or "surplus".

Do not shift either curve. Use diagrams 1 and 2 above as your model. For a tax or subsidy diagram, also label the new supply curve and both equilibria (P1, Q1 and P2, Q2).

6. Identify (2 marks) (2 question parts)

One mark each, no explanation needed.

- **Why an economy is described as mixed**: there is a public sector (state-owned firms, government intervention) (1) and a private sector (1).
- **Two types of economic system**: any two of market, planned and mixed.

Worked examples

Example 1

A country's central bank sets a minimum exchange rate for its currency of US\$0.50, above the free-market rate. At US\$0.50, 450 million units of the currency are offered for sale each month and 300 million are demanded.

- (a) Calculate the excess supply of the currency at the minimum rate. **[1]**
- (b) Explain what the central bank must do to keep the rate at US\$0.50, and calculate what this costs it each month. **[2]**
- (c) Explain one risk of holding the rate at this level for several years. **[2]**

(a) $450 - 300 = 150$, so an excess supply of 150 million units a month (1).

(b) Without action, sellers would cut the rate to find buyers, so the central bank must itself buy the 150 million spare units at US\$0.50 each (1). That uses $150 \times 0.50 = 75$, so US\$75m of its foreign currency reserves a month (1).

(c) The reserves are limited, and at US\$75m a month they may run out (1). The bank would then have to let the rate fall suddenly, which could make imports much dearer overnight and push up inflation (1).

Example 2

Explain two ways a government could encourage households to recycle more of their waste. [4]

One way is to pay a small refund on every bottle and can that households return (a subsidy to consumers) (1). This rewards each item recycled, so households have a money reason to sort their waste instead of throwing it away (1).

A second way is regulation making it compulsory to separate waste, with fines for households that don't (1). This makes throwing recyclable waste in the general bin costly, so more households follow the rule (1).

Two **different** tools, each with how it changes behaviour.

Example 3

A government puts a tax of \$1 on each can of energy drink sold. Analyse, using a demand and supply diagram, how this would affect the market for energy drinks. [5]

Draw diagram 4 from "Understand it": price and quantity on the axes (1); the demand curve D and the original supply curve S1, labelled (1); the new supply curve S2 to the left of S1 (1); the old and new equilibria marked P1, Q1 and P2, Q2 (1).

The tax is a cost to the firms selling each can, so supply decreases, the price rises from P1 to P2 and the quantity bought falls from Q1 to Q2 (1). With the numbers in the diagram, the price rises from \$3 to \$3.60 and sales fall from 60 thousand to 36 thousand cans a week, raising \$36,000 a week in tax.

Example 4

Discuss whether or not a government should nationalise its country's railway company. [8]

For. A railway is a natural monopoly: it makes no sense to build two sets of tracks, so a private owner faces no competition and can raise fares. In state hands, fares can be set to cover costs rather than to maximise profit, keeping travel affordable (developed point for).

Rail travel has external benefits. Each passenger who takes the train instead of driving means less congestion and less pollution for other people, but a private owner only counts the fares it collects. A state railway can keep fares low and run services that don't pay for themselves, such as lines to remote towns, because it counts these wider gains (second developed point for).

Against. Without the profit motive, managers have less reason to cut costs, so the railway may be overstaffed and slow to modernise. Its losses must then be covered from taxes, and that money has an opportunity cost: it can't be spent on hospitals or schools (developed point against).

Buying the company costs the government a large sum in compensation to its owners. Decisions may also become political: fares kept low before an election, or lines kept open in favoured areas, instead of where they are most needed (second developed point against).

Judgement. Nationalisation makes most sense if the private owner has been using its monopoly to raise fares or has let the network run down, and if the government has a record of running state firms well. If not, regulating the private owner's fares and paying a subsidy for the socially useful routes may get most of the benefits at lower cost, so I would try that first (justified judgement). Both sides are developed and the conclusion says what the answer depends on, so this meets the Level 3 descriptor (6–8 marks).

Common mistakes

- **Shifting a curve for a price control.** Examiners see diagrams where a maximum price shifts demand or supply. It doesn't: draw the horizontal line and read off the two quantities.
- **Putting the control on the wrong side.** A maximum price that matters is **below** equilibrium; a minimum price **above** it. A minimum price is not "the lowest price a firm can charge and still make a profit".
- **Mixing up shortage and surplus.** Maximum price → excess demand (shortage). Minimum price → excess supply (surplus); for labour that surplus is unemployment.
- **Jumping stages.** "A subsidy lowers the price so exports rise" skips the reasons. Say why each step follows: the subsidy lowers costs, so firms supply more at each price, so the price falls, so more is bought.
- **Describing only one side of a mixed economy.** An answer that explains prices and profit but never mentions the state (or the other way round) describes a market or planned economy, not a mixed one. Say who decides in each part and what guides them.
- **Using taxes or subsidies when regulation is asked for.** Regulation means laws and rules; a tax is a different tool.
- **One-sided Discuss answers.** Many answers give only the benefits of a measure. Without developed points on the other side, the answer can't reach the top level.
- **Reversing a point for the other side.** "It may create jobs ... it may not create jobs" scores once. Give a separate reason on each side.
- **Forgetting elasticity.** A tax on a product with inelastic demand raises price but barely cuts consumption; say so.

How to get the marks

- **Identify** (2 marks): two short, separate answers. Only the first ones you write may count, so don't list many.
- **Define:** one exact sentence with the key idea: "a maximum price is a legal limit on the price that can be charged, set below the equilibrium price".

- **Explain** (2 or 4 marks): point + development. The development says *how* or *why*, for this product or case.
- **Analyse** (5 or 6 marks): chains of reasoning, each link a "so" or "because". Start with a definition; end each chain with the effect on the market or resource allocation. Identifying measures without developing them is capped at half marks.
- **Draw**: a large, ruled diagram with every axis, curve and point labelled. P and Q on the axes are enough; the marks are for what is labelled, not artistry.
- **Discuss** (8 marks): both sides, at least two developed points each, then a judgement that says what the answer **depends on**. In the 6-mark source questions, up to 4 marks a side, so two developed points each side is enough.
- **Use the source** in Section A: link your points to the product, country or figure in the text, but don't just copy its words.
- **Use the terms**: maximum price, minimum price, shortage, surplus, excess demand, excess supply, indirect tax, subsidy, regulation, privatisation, nationalisation, public sector, private sector, government failure, opportunity cost.
- **Multiple choice**: 1 mark each, no penalty for guessing, so answer every one.

Quick check

1. School uniforms sell for \$20 in a free market, with 70 bought a month. The government sets a maximum price of \$15. At that price, shops offer 40 fewer uniforms a month than before, and parents want 20 more than before. Calculate the shortage.
2. Which is an example of the government providing a good or service directly?
 - **A** a tax on petrol
 - **B** a law requiring cyclists to wear helmets
 - **C** free vaccinations at state-run clinics
 - **D** a payment to private bus companies for each passenger carried
3. Before a subsidy, fertiliser sells at \$20 a bag and 500 bags are bought a week. The government then pays producers \$3 a bag, and the price falls to \$18 with 600 bags bought a week. Calculate (a) how much less each farmer pays per bag, (b) the amount producers receive per bag including the subsidy, and (c) the weekly cost of the subsidy to the government.
4. Explain two disadvantages of setting a national minimum wage above the equilibrium wage. **[4]**
5. The equilibrium price of bread is \$8. The government sets a maximum price of \$10. What happens to the price and quantity of bread?

Answers

1. Quantity supplied = $70 - 40 = 30$; quantity demanded = $70 + 20 = 90$. Shortage = $90 - 30 = 60$ uniforms a month.
2. **C**. The state produces and supplies the vaccinations itself. A is a tax, B is regulation, D is a subsidy. (1)
3. (a) $20 - 18 = 2$, so \$2 less. (b) $18 + 3 = 21$, so \$21 a bag. (c) $3 \times 600 = 1800$, so \$1800 a week. The price fell by less than the subsidy because part of it went to producers.
4. It can cause unemployment (1): at the higher wage, firms want fewer workers while more people want to work, so some who would have had a job at the market wage now have none (1). It raises firms' costs (1), so they may put up prices, which reduces sales or makes their products less competitive against imports (1).
5. Nothing changes. The maximum price is above the equilibrium, so the market price of \$8 is already allowed and the quantity stays at the equilibrium quantity.

Past questions to try

- **0455/11/O/N/25 Q9**: the effect of a minimum price read from a table.
- **0455/23/O/N/24 Q1**: part (f), a subsidy on a demand and supply diagram.
- **0455/22/M/J/24 Q1**: part (g), discussing whether to keep subsidising electricity production.
- **0455/23/M/J/24 Q2**: part (d), discussing a maximum price on housing.