Cambridge Assessment International Education

Cambridge International AS & A Level

ECONOMICS **9708/41**

Paper 4 A Level Data Response and Essays **May/June 2025**

2 hours

1584179791

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **three** questions in total:
  - Section A: answer Question 1.
  - Section B: answer **one** question.
  - Section C: answer **one** question.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.
- You may use a calculator.
- You may answer with reference to any economy you have studied where relevant to the question.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].

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Section A

Answer all parts of Question 1.

1 The influence of governments

People often talk as if governments can easily control economic outcomes.

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High-income countries decided to focus on economic growth realising that it was essential to generate revenues and taxes needed to pay for costly investments, for example, the storage of renewable energy, required to reduce the use of fossil fuels.

Sources: Irwin Stelzer, The Sunday Times, *29 January 2023*
Ray Bourne, The Times, *9 February 2023*

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(a) The article refers to structural unemployment. Explain what this means and whether it is the same as the natural rate of unemployment. [3]

(b) To keep unemployment low, one government used fiscal policy. Analyse how this policy can affect unemployment rates. [6]

(c) Explain how the policies of high-income economies towards 'green energy' changed between 2015 and 2022. [3]

(d) Assess whether the article provides sufficient evidence to justify its conclusion that the intervention of governments has little effect on economic outcomes. [8]

Section B

Answer **one** question.

EITHER

2 With the help of a diagram, evaluate the use of indifference curve analysis to explain the relationship between a change in the price of a product and the change in an individual consumer's demand for this product. [20]

OR

3 The growth of a firm using a takeover is desirable because it enables consumers to benefit from lower prices and the firm to gain additional profits.

Evaluate this statement. [20]

Section C

Answer **one** question.

EITHER

4 A country is experiencing stagflation, when there is a high rate of inflation at the same time as a negative output gap.

With the help of a diagram, evaluate the effectiveness of using fiscal policy to solve this problem. [20]

OR

5 A free trade area gains all the benefits associated with being a member of a customs union while avoiding all the costs associated with being a member of a customs union.

Evaluate this statement. [20]

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Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

Question number

Answers for paper 9708/41

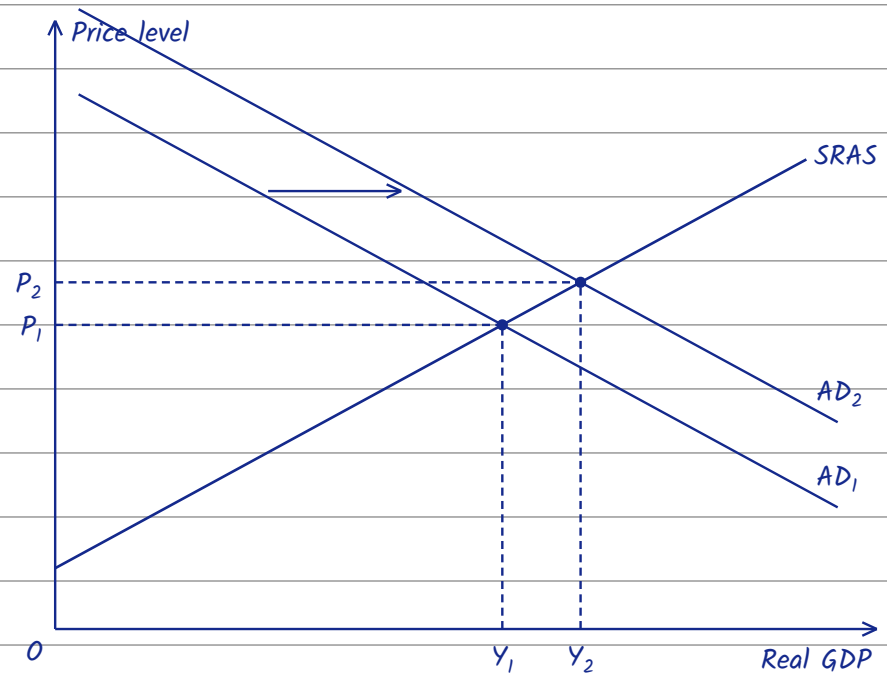
1(a) Structural unemployment occurs when there is a mismatch between the skills (or location) of the people looking for work and the jobs that are available, usually because of a long-term change in the structure of the economy, such as the decline of an industry or new technology. People are willing to work at the going wage but cannot fill the vacancies because they do not have the skills required, or there are fewer jobs in their industry or region than people seeking them.

It is not the same as the natural rate of unemployment. The natural rate is the unemployment that remains when the labour market is in equilibrium, and it includes both structural and frictional unemployment, so structural unemployment is only one part of the natural rate.

1(b) Fiscal policy is the use of government spending and taxation (and so the budget balance) to influence aggregate demand and the economy. To keep unemployment low the government can use expansionary fiscal policy: increase its spending, for example on infrastructure, or cut taxes such as income tax.

Higher government spending is an injection, so AD (= C + I + G + X − M) rises directly. A cut in income tax raises disposable income, so consumption rises. AD shifts right from AD1 to AD2 and real output rises from Y1 to Y2.

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Because the demand for labour is a derived demand, firms need more workers to produce the extra output, so they hire more and demand-deficient (cyclical) unemployment falls. The multiplier makes the effect larger: the extra spending becomes income for others, who spend part of it, creating further rounds of spending and jobs.

Fiscal policy can also reduce structural unemployment if the spending is on training, education or subsidies for firms that employ the long-term unemployed, as this improves skills and mobility. However, if the economy is close to full capacity the rise in AD mainly raises the price level (P1 to P2) rather than output, so unemployment falls by less, and extra demand alone cannot cure a skills mismatch.

1(c) In 2015, at the Paris Agreement, high-income countries were willing to increase the output of green energy and reduce the use of fossil fuels in energy production, and they promised funds to poorer countries to help them cut CO2 emissions. By 2022 they had changed their focus to economic growth, arguing that growth was needed to raise the revenue and taxes to pay for costly investments such as

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the storage of renewable energy. Energy production using fossil fuels continued, and the promised funds from rich to poor countries did not materialise.

1(d) Much of the evidence in the article goes against its conclusion. The war in Ukraine disrupted supplies, but the war was the decision of the Russian government, which also stopped the flow of natural gas. This sharply raised energy prices and inflation and slowed growth, so a government decision had a large effect on economic outcomes.

Central banks raised interest rates to stop inflation rising further. Higher rates raise the cost of borrowing and reduce spending, so this intervention also changed outcomes, again evidence against the conclusion.

High-income governments chose to concentrate on growth and did not direct finance to green energy. This choice affected the energy mix and the level of emissions, so it shows that government decisions do change outcomes.

Some evidence supports the conclusion. The article stresses the billions of private transactions that decide outcomes, but it is not clear whether this supports or contradicts the conclusion, because it gives no measure of their effect compared with government policy. The article does not show that supply-side policies were the reason for low unemployment in Germany, and its evidence on the link between fiscal policy and unemployment does support the view that intervention has had little clear effect.

The evidence is also limited: it comes from newspaper opinion articles, covers a short period, gives few figures and no comparison with what would have happened without intervention.

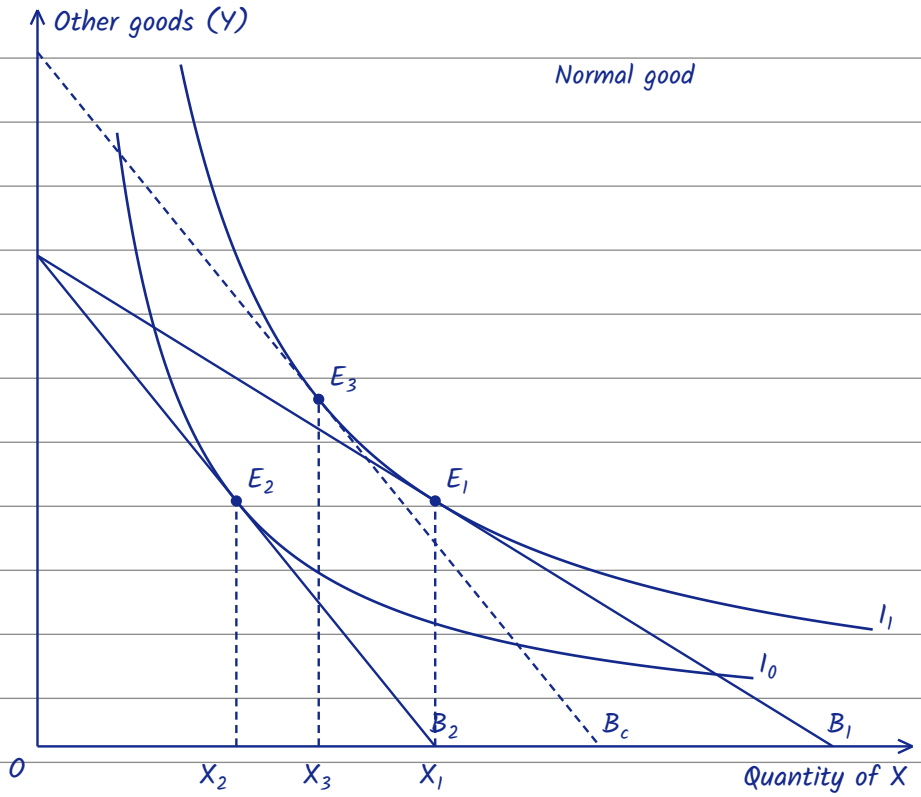
Conclusion: the article does not provide sufficient evidence. Its own examples suggest governments have a significant effect, even if not always the intended one, so the conclusion is not justified.

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2

An indifference curve shows all the combinations of two goods that give a consumer the same level of satisfaction (utility). Indifference curves slope downwards and are convex to the origin, because of a diminishing marginal rate of substitution: the more of good X a consumer has, the less of good Y they will give up for one more unit of X. An indifference map is a set of curves, and curves further from the origin show higher satisfaction. Curves cannot cross.

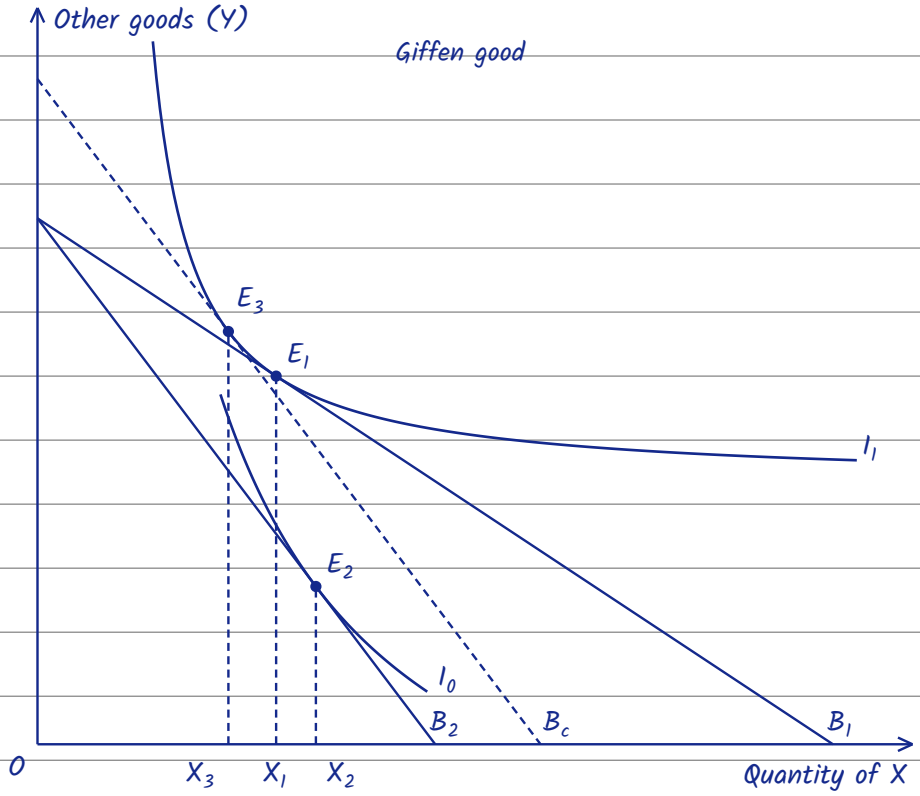
The budget line shows all combinations of X and Y the consumer can just afford with a given income and prices. Its slope is $-Px \div Py$. A change in income shifts it parallel, while a change in the price of X pivots it around the Y intercept. The consumer is in equilibrium where the budget line is tangent to the highest attainable indifference curve, where $MRS = Px \div Py$.



In the diagram the price of X rises, so the budget line pivots inwards from B1 to B2 and the consumer moves from E1 on I1 to E2 on the lower curve I0: demand falls from X1 to X2. This price effect can be split into two parts with a compensated budget line Bc, drawn parallel to B2 (the new relative prices) but

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tangent to the original curve I1. The substitution effect, E1 to E3 (X1 to X3), is the fall in demand because X is now relatively more expensive; it is always negative for a price rise. The income effect, E3 to E2 (X3 to X2), is the fall in demand because the higher price reduces real income. For a normal good both effects reduce demand, so the demand curve slopes downwards. For an inferior good the income effect works in the opposite direction but is smaller than the substitution effect, so demand still falls, by less.



For a Giffen good, a strongly inferior staple that takes a large share of a poor consumer's income, the positive income effect (E3 to E2) outweighs the substitution effect (E1 to E3), so after the price rise demand rises from X1 to X2 and the demand curve slopes upwards. By joining the equilibrium points at different prices (the price consumption curve) an individual demand curve can be derived, so the analysis explains the link between a price change and demand in detail.

Evaluation: the main strength of the analysis is that it separates the substitution

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and income effects and so explains why demand usually falls when price rises, and why inferior and Giffen goods behave differently, without needing to measure utility in units, only to rank bundles. However, it rests on assumptions about human behaviour that determine the shape of the curves. It assumes consumers are rational and always try to maximise satisfaction, yet behavioural economics shows people use rules of thumb, act out of habit and are affected by how choices are framed. It assumes the consumer can correctly tell the difference in satisfaction between very similar bundles, and indifference curves cannot be observed, so the analysis is hard to test.

The model also considers only two goods, whereas real consumers compare the prices of a wide range of goods and substitutes before choosing. It assumes tastes stay constant, but advertising or fashion can change preferences, which changes the shape of the indifference curves and so the final effect of a price change on demand. In practice other things also change at the same time as price, such as income and the prices of other goods.

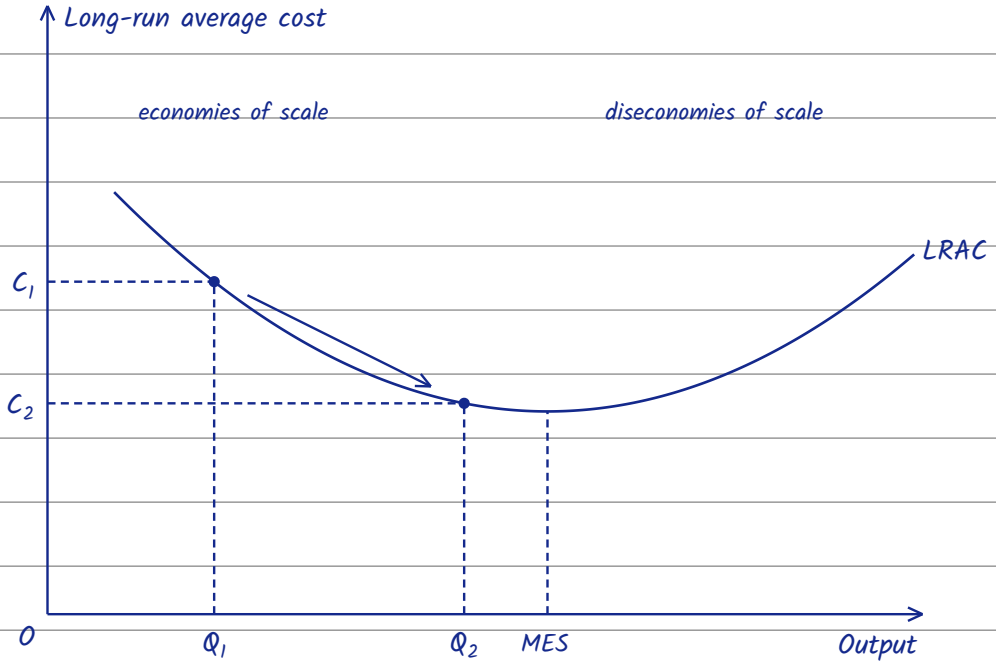
In conclusion, indifference curve analysis is a useful theoretical tool for explaining how and why an individual consumer's demand responds to a price change, especially the different roles of substitution and income effects. It is less effective as a way of predicting actual behaviour, because its assumptions of rational, fully informed consumers with fixed tastes choosing between two goods rarely hold, so it explains the direction of change better than its size.

3

A takeover is a form of external growth in which one firm buys a controlling share of another firm, which may not agree to it. It differs from a merger, where two firms agree to join together to form one new company. A horizontal takeover is of a firm at the same stage of production in the same industry; a vertical takeover is of a supplier (backward) or a customer, such as a retailer (forward); a conglomerate takeover is of a firm in an unrelated industry.

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The main argument for the statement is economies of scale. A horizontal takeover makes the firm much larger, so it can gain technical economies (larger, more efficient machinery and specialisation), purchasing economies (bulk buying of raw materials at discounts), financial economies (cheaper borrowing) and managerial economies. It can also rationalise by closing duplicated offices and plants. As output rises from Q1 to Q2, long-run average cost falls from C1 to C2.



If these cost savings are passed on, consumers benefit from lower prices. A backward vertical takeover can secure supplies and remove the supplier's profit margin, and a forward takeover gives control over distribution, so costs fall further. At the same time the firm can gain additional profits: lower average cost raises the profit on each unit, and a bigger market share increases total revenue. So in theory both consumers and the firm can gain.

Evaluation: the two parts of the statement can conflict. The cost savings from economies of scale may not be passed on to consumers; the firm may keep them as higher profit. A horizontal takeover reduces the number of competitors and increases market power. A firm with monopoly power maximises profit where MC = MR and can restrict output and charge higher prices, so P > MC and there is

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allocative inefficiency. Consumers then lose while the firm gains, which is why competition authorities may investigate, block the takeover or impose price regulation.

Higher profits are not guaranteed either. Takeovers are often very costly: the buyer usually pays a premium above the market value of the shares and may borrow heavily, which can reduce profits in the long run. A much larger organisation may suffer diseconomies of scale beyond the minimum efficient scale, such as communication and coordination problems and culture clashes between the two firms' managers and workers, which raise average cost and could even lead to rising prices. Many takeovers fail to deliver the expected gains.

The outcome also depends on the type of takeover and the market. A conglomerate takeover spreads risk but gives few economies of scale, so few lower prices. If the market is contestable, with low barriers to entry, the threat of new entrants may force the firm to pass cost savings on, so consumers gain.

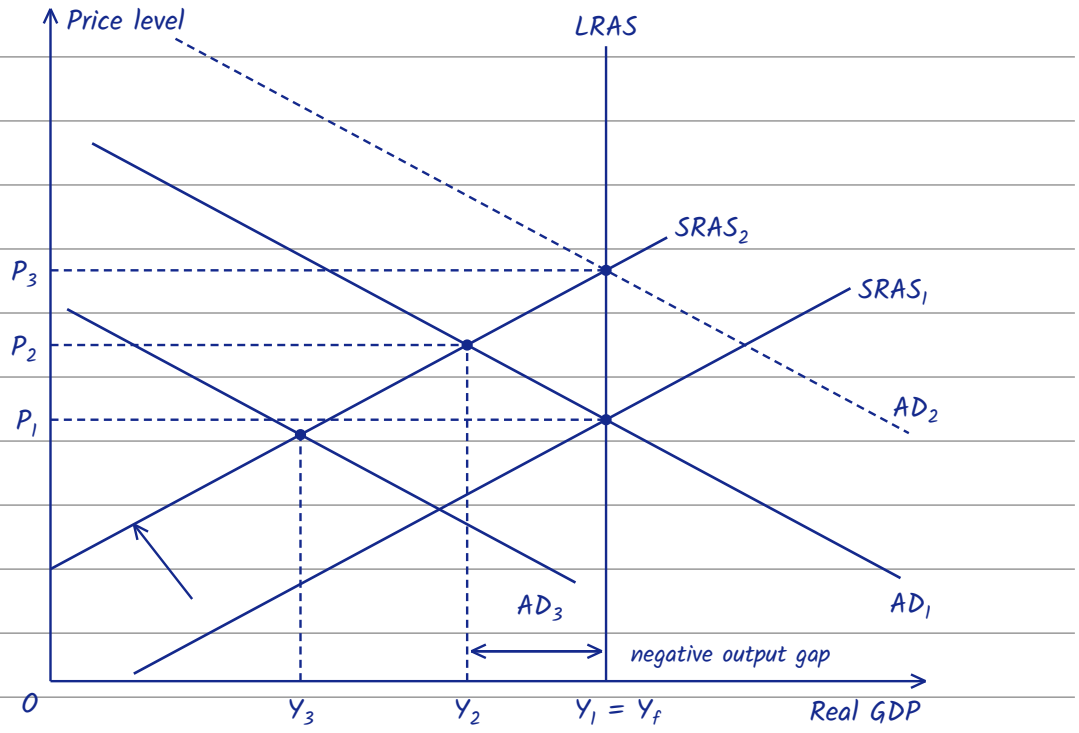
In conclusion, a takeover can benefit both consumers and the firm when it brings genuine economies of scale in a market that stays competitive. However, the statement is too optimistic: lower prices for consumers depend on competition forcing the savings to be passed on, and extra profit depends on avoiding diseconomies and the high cost of the takeover, so a takeover is desirable only in some cases.

4 Inflation is a sustained rise in the general price level, which reduces the purchasing power of money. High inflation causes problems: it reduces the real incomes of people on fixed incomes, creates uncertainty that discourages investment, redistributes from savers to borrowers and makes exports less price competitive. A negative output gap exists when actual real GDP is below potential real GDP, so there is spare capacity and demand-deficient unemployment.

Stagflation is usually caused by a fall in aggregate supply, for example a large rise

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in the world price of oil or in wages. Costs of production rise, so SRAS shifts left from SRAS1 to SRAS2. The price level rises from P1 to P2 while real GDP falls from Y1 (full employment, Yf) to Y2, creating a negative output gap of Y2 to Yf at the same time as inflation.



Fiscal policy is the use of government spending and taxation to influence aggregate demand. Expansionary fiscal policy, higher government spending or lower taxes, shifts AD right from AD1 to AD2. Through the multiplier, output rises back to Yf and the negative output gap is closed, so unemployment falls. However, the price level rises further to P3, so inflation becomes worse.

Contractionary fiscal policy, cutting spending or raising taxes, shifts AD left from AD1 to AD3. This reduces inflationary pressure, but real GDP falls further to Y3, so the negative output gap widens and unemployment rises. This is the central problem: fiscal policy acts on demand, but stagflation is caused by supply, so reducing one problem with demand management makes the other worse.

Fiscal policy can be more effective if it is used to affect supply rather than demand. Cuts in taxes on firms, subsidies for energy, or spending on infrastructure,

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education and training lower costs and raise productivity, shifting SRAS and LRAS to the right. This lowers the price level and raises output at the same time, so it tackles both parts of stagflation.

Evaluation: the effectiveness of fiscal policy depends on the cause of the inflation. If it is imported cost-push inflation from world energy prices, fiscal policy cannot remove the cause, and expansionary policy could create a wage-price spiral if workers expect higher inflation. There are also time lags in deciding, approving and spending, so the policy may take effect after the shock has passed. Expansionary policy increases the budget deficit and national debt, and government borrowing may raise interest rates and crowd out private investment, reducing the effect on output. The size of the multiplier depends on the marginal propensities to save, tax and import, so in a very open economy much of the extra spending leaks out on imports.

Supply-side measures are likely to be more suitable, but they work mainly in the long run. Raising productivity often means investment in new technology, which may increase unemployment in the short run, and spending on education takes years to have an effect. Other approaches, such as reducing regulation or cutting production costs, may be needed alongside fiscal policy, while monetary policy may be used to hold inflation expectations down.

In conclusion, fiscal policy that works through aggregate demand is not effective at solving stagflation, because it can reduce either inflation or the negative output gap only by making the other worse. In the short run a government must choose which problem to target, often by temporary help such as energy subsidies; in the long run fiscal policy is most effective when it is used for supply-side measures that raise productivity, as only an increase in aggregate supply reduces inflation and closes the output gap together.

5 A free trade area is a group of countries that remove tariffs and quotas on goods

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traded between members, but each member keeps its own tariffs on imports from non-members, for example the USMCA (United States, Mexico, Canada). Because external tariffs differ, it needs rules of origin to stop goods entering through the member with the lowest tariff. A customs union also removes tariffs between members, but in addition all members adopt a common external tariff on imports from non-members, for example the EU customs union. So a customs union is a deeper stage of integration.

Both bring similar benefits. Removing internal tariffs causes trade creation: high-cost domestic production is replaced by cheaper imports from more efficient member countries, so consumers pay lower prices and have more choice. Countries can specialise according to comparative advantage and sell to a larger market, so firms gain economies of scale. The absence of import tariffs reduces costs for firms using imported components, and greater competition raises efficiency and labour productivity. Output, incomes and economic growth rise, and the larger market attracts inward foreign direct investment.

The statement argues that a free trade area gets all of these benefits while avoiding the costs of a customs union. There is some truth in this. Members of a customs union lose economic and political sovereignty, as they cannot set their own external tariffs or sign their own trade deals with other countries. The common external tariff also causes trade diversion: a member may switch imports from a low-cost producer outside the union to a higher-cost producer inside it, because the outsider faces the tariff. This misallocates the world's resources and raises prices for consumers. A free trade area member can keep low tariffs on efficient outside producers and negotiate its own agreements, so it suffers less trade diversion and keeps control of trade policy.

Evaluation: however, a free trade area does not gain all the benefits of a customs union. Members of a customs union share protection from competitors outside the union while having access to a large single market, which can encourage

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investment. Goods circulate freely once inside the union, without checks on rules of origin, so trade is cheaper. In a free trade area firms must prove where their products were made, which involves paperwork and border delays, and some trade creation is lost. A customs union also negotiates as one bloc, so it has much more bargaining power in trade talks with large economies, and its closer integration may increase political stability.

Nor does a free trade area avoid all the costs. Trade diversion can still happen in a free trade area, since internal tariffs are zero while external tariffs remain. Both types of agreement may also use non-tariff barriers, such as different product standards, which reduce trade inside the bloc and with the rest of the world. Industries that were protected before may decline in both cases, causing structural unemployment.

The balance also depends on the countries involved. Trade creation is likely to be larger than trade diversion when members were already major trading partners and when the external tariff is low, so the cost of a customs union is smaller. For a small country that trades mainly with non-members, the flexibility of a free trade area may be worth more.

In conclusion, the statement is only partly true. A free trade area gains the main benefits of trade creation, specialisation and economies of scale while avoiding the loss of control over external trade policy. But it does not gain all the benefits, because it loses the free circulation of goods, shared protection and joint bargaining power, and it does not avoid all the costs, because rules of origin and some trade diversion remain.

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ECONOMICS **9708/42**

Paper 4 A Level Data Response and Essays **May/June 2025**

2 hours

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You must answer on the enclosed answer booklet.

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INSTRUCTIONS

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INFORMATION

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- The number of marks for each question or part question is shown in brackets [ ].

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Section A

Answer all parts of Question 1.

1 **Global carbon emissions**

A key message of the 2021 World Climate Summit was that the use of coal must be phased out for the good of the planet.

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Instead, a mixture of renewable energies will be required to achieve zero-carbon

Sources: The Sunday Times, *17 October 2021*
The Times, *26 October and 24 November 2021*
nsenergybusiness.com, 4 November 2021

(a) Define economic sustainability and give **one** example from the information of a change that can be used to illustrate it. [2]

(b) Use the information to comment on the possible effects on the economies of the countries that refused to sign the carbon policy agreement. [4]

(c) Discuss why the article says that 'China is a country of contradictions'. [4]

(d) With the help of a marginal social cost and benefit diagram discuss whether the continued use of coal to produce electricity makes the achievement of allocative efficiency less likely. [10]

Section B

Answer **one** question.

EITHER

2 Monopolies restrict output to raise prices to exploit consumers.

With the help of a diagram, assess the extent to which a government should intervene in monopoly markets. [20]

OR

3 With the help of a diagram, assess whether the impact of an increase in labour productivity on the wages and employment of a firm is likely to be greater in a perfectly competitive labour market than in an imperfectly competitive labour market. [20]

Section C

Answer **one** question.

EITHER

4 With the help of an injections and withdrawals graph, assess the impact of a decrease in interest rates on the level of employment in an economy. [20]

OR

5 Globalisation will have an equally beneficial effect on the standard of living in both high-income and low-income countries.

Evaluate this statement. [20]

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Question number

Answers for paper 9708/42

1(a) Economic sustainability is current economic activity that meets present needs without compromising the ability of future generations to meet their own needs. Example: phasing out coal and replacing it with alternative, renewable sources of energy such as wind and solar power, to reduce the damage to the environment.

1(b) The countries that refused to sign are some of the top producers (and users) of coal. In the short run this may benefit their economies: coal is a cheap power source, so energy costs stay low, which helps maintain economic growth and the competitiveness of their industries. It is also a reliable source of power that can be stored and managed to meet the demand for electricity, so production continues without interruption.
However, coal is a finite resource, so they face future costs of switching to other fuels. They will continue to create negative externalities, such as carbon dioxide and toxic gases and lower air quality, which damage health and productivity and add to climate change.

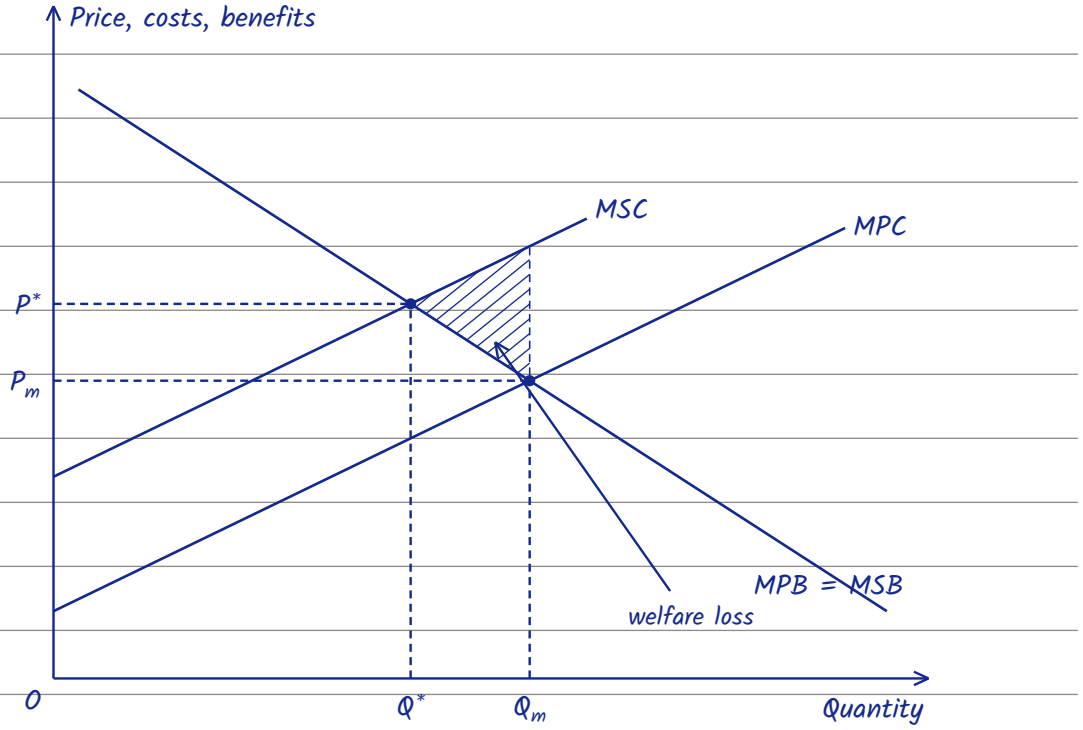
1(c) China undermines the aim of the World Climate Summit: it produces about 70% of its electricity from coal and other fossil fuels, accounts for about 31% of world emissions, its use of coal was projected to rise to a record level in 2022, and it refused to sign the agreement. It has said it will not sacrifice economic growth, which has been relatively high at 8.3%, to reduce its reliance on coal.
By contrast, China is investing heavily in green technologies such as solar, wind and hydro-electric power, is a leading user of electric cars and is a leading

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manufacturer and exporter of wind turbines. So it is both a major polluter and a leader in green energy, which is why it is called a country of contradictions.

1(d) Private cost is the cost of an activity paid by the producer or consumer, such as the cost of mining and burning coal. External cost is the cost imposed on third parties who are not part of the transaction. Social cost is private cost plus external cost. Allocative efficiency is achieved where resources are allocated so that society's welfare is maximised, where marginal social benefit equals marginal social cost (MSB = MSC).

Burning coal to produce electricity creates large external costs: greenhouse gases such as carbon dioxide, which cause climate change, and pollution which harms health and lowers air quality. The information shows that three countries produce 52% of global CO2 emissions from coal use. Because of these negative externalities MSC is greater than MPC at every output.



Producers ignore the external cost, so the market produces where MPB = MPC, at Qm and price Pm. The socially optimal, allocatively efficient output is Q*, where

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MSB = MSC. So there is over-production of coal-fired electricity of Qm – Q^*, and for each unit between Q^* and Qm the social cost is greater than the social benefit. This creates the welfare loss shown by the shaded triangle, so the continued use of coal makes allocative efficiency less likely.

However, this depends on whether the external cost is internalised. A carbon tax equal to the marginal external cost would shift MPC up to MSC, and tradable pollution permits or regulation could also reduce output to Q^*, so efficiency could be achieved even while some coal is still used. The problem is that the external costs of climate change are very hard to measure and fall across countries and future generations, so a tax may be set at the wrong level, and countries that refuse to sign agreements will not impose it.

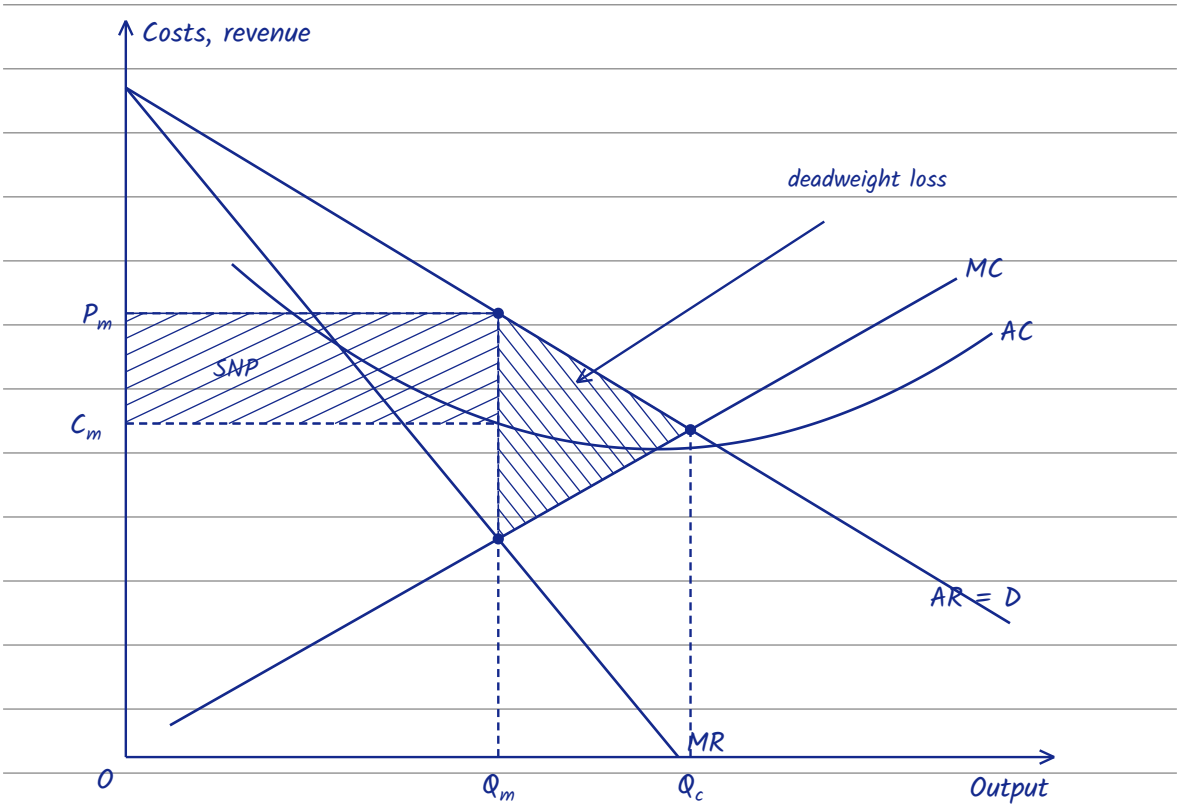
Also, the alternatives have costs: renewable energy is intermittent and storage is expensive, so for some countries coal may be the cheapest reliable source and supports growth and energy security. Allocative efficiency must weigh these benefits as well as the costs.

Conclusion: as long as coal is used without its external costs being priced in, output is above Q^* and allocative efficiency is less likely. It can be achieved only if governments correct the externality, which is difficult on a global scale.

2

A monopoly is a market with a single seller (or, in law, a firm with a large market share, for example 25% in the UK). There are high barriers to entry, such as economies of scale, patents or control of resources, and no close substitutes, so the firm is a price maker facing the downward-sloping market demand curve. Assuming it aims to maximise profit, it produces where MC = MR.

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In the diagram the monopolist produces Qm, where MC = MR, and charges Pm from the AR curve. Since AR is above AC at Qm it earns supernormal profit (shaded), and barriers to entry stop new firms competing it away, so it lasts in the long run. If the industry were perfectly competitive, output would be where MC = AR, at Qc, with a lower price on the AR curve. So the monopoly restricts output and raises price, which supports the statement. Price is above marginal cost, so it is allocatively inefficient, and the triangle between Qm and Qc is a deadweight welfare loss. It does not produce at the minimum of AC, so it is productively inefficient, and the lack of competition may cause X-inefficiency, with costs higher than necessary. Consumer surplus is transferred to the producer.

Governments can intervene in several ways. Competition policy can investigate monopolies, block mergers that would create one, fine firms for abuse of market power or break them up. Price regulation, such as a maximum price or an RPI – X price cap, can stop the monopolist charging Pm: a maximum price set where MC = AR makes the firm a price taker up to Qc, so it raises output to the efficient level.

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Governments can also tax monopoly profits, reduce barriers to entry through deregulation so the market becomes contestable, or take the industry into public ownership.

Evaluation: however, not all monopolies exploit consumers, so intervention is not always justified. A large firm may gain economies of scale so that its costs, and even its price, are lower than in a competitive market. Some industries, such as water supply or rail track, are natural monopolies, where one firm can supply the market at lower average cost than several; trying to introduce competition would duplicate infrastructure and lead to more inefficient outcomes, so regulation is better than break-up. Supernormal profit can also fund research and development, so monopolies may be dynamically efficient, as with patented medicines.

Each type of intervention also has problems. A tax on monopoly profits may reduce the incentive to invest and lead to X-inefficiency. A maximum price set too low may cause shortages and underground markets, or force the firm to cut quality. Direct regulation that reduces a monopoly's market share may also stop it benefiting from economies of scale, so costs and prices could rise. The regulator may lack the information to know the firm's costs, or suffer regulatory capture, so intervention risks government failure, and it is costly to run.

The case for intervention also depends on the market. If barriers to entry are low the market is contestable, and the threat of entry keeps prices close to average cost without government action.

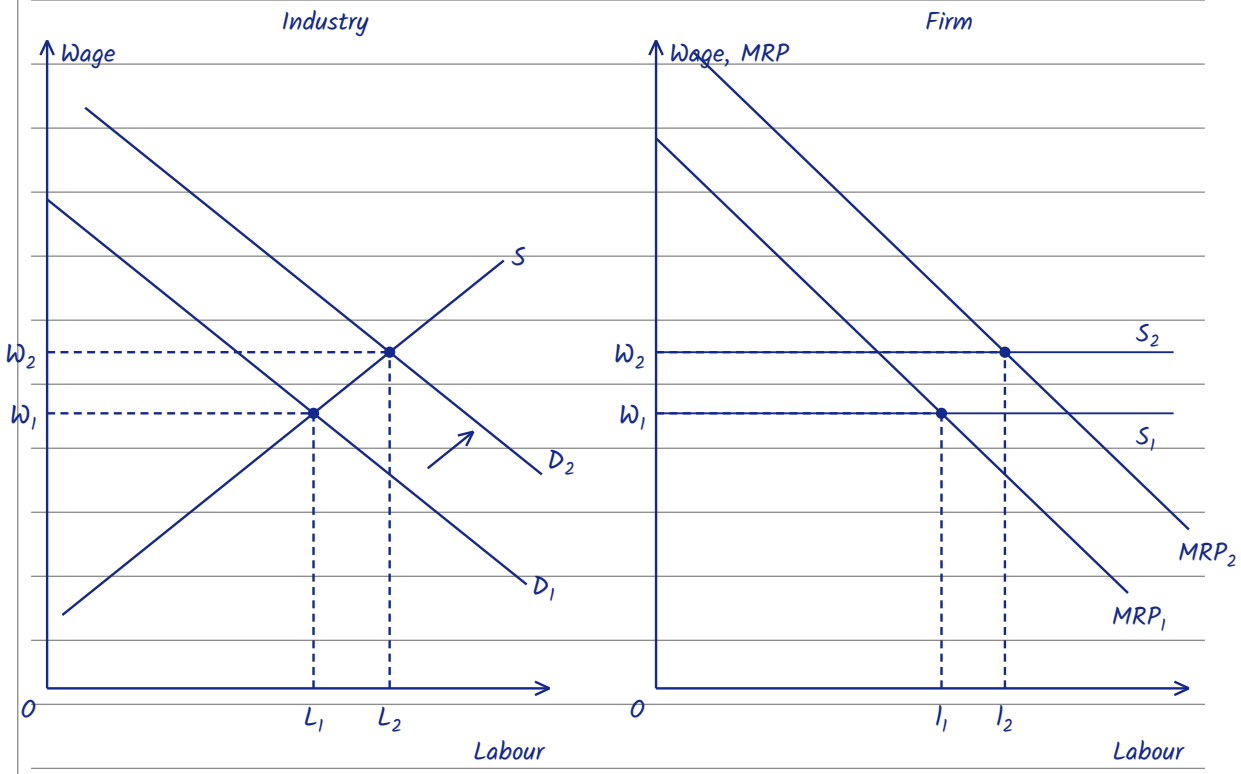
In conclusion, a government should intervene in monopoly markets where high barriers allow a firm to restrict output and raise prices without bringing benefits in return. But the extent of intervention should be limited and targeted: natural monopolies are best regulated with price caps rather than broken up, and monopolies that are contestable or that use profits for innovation and lower costs may need little intervention.

Question number

3

Labour productivity is output per worker per period of time, for example per hour. An increase means each worker produces more, because of better training, more or better capital equipment or improved organisation. The demand for labour is a derived demand, given by the marginal revenue product of labour: MRP = MPP × MR. A rise in productivity raises MPP, so MRP rises and the demand curve for labour shifts to the right.

In a perfectly competitive labour market there are many small firms and many workers, labour is homogeneous, there is perfect information and perfect mobility, and no trade unions. The wage is set by industry demand and supply, so each firm is a wage taker and faces a horizontal supply curve of labour at the market wage (ACL = MCL). It employs workers up to the point where MRP = wage.

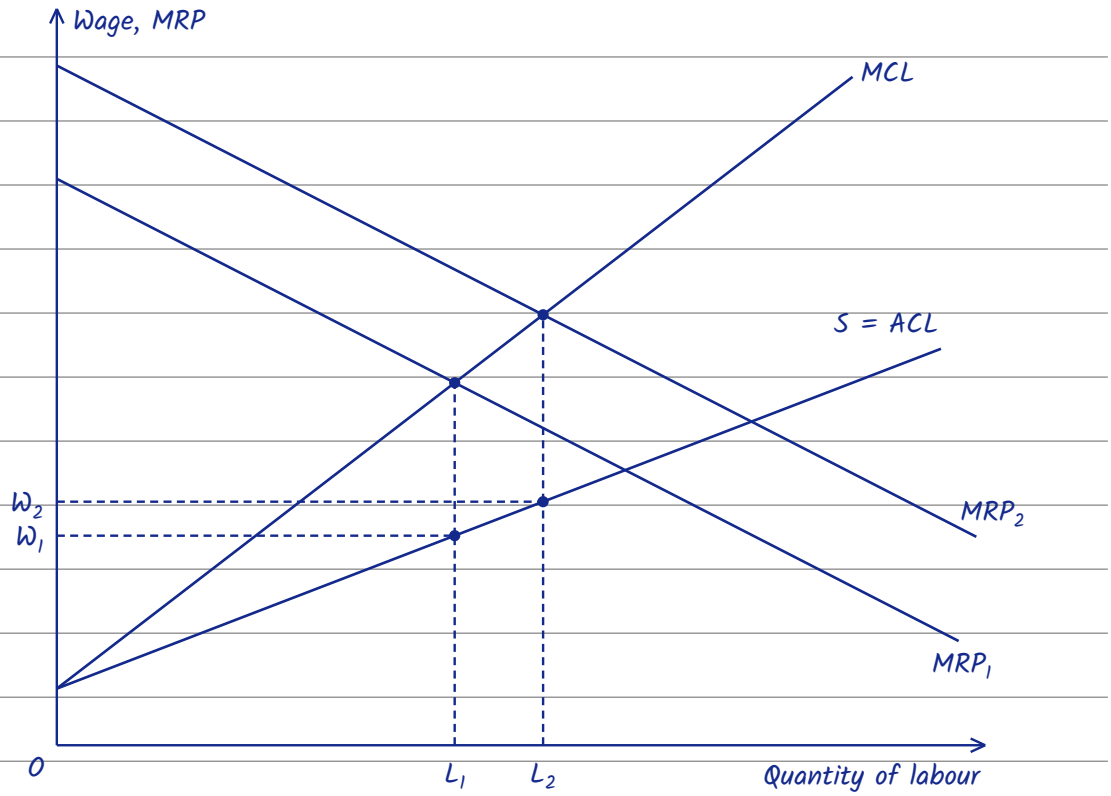


If productivity rises across the industry, demand for labour shifts from D1 to D2, so the market wage rises from W1 to W2 and total employment rises from L1 to L2. In the firm, MRP shifts from MRP1 to MRP2, the firm faces the higher wage S2 and employment rises from I1 to I2 where MRP2 = W2. If only one firm's productivity rises, the wage stays at W1 and the whole effect is on employment,

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which rises by more. Workers are paid the value of their marginal product.

In an imperfectly competitive labour market, such as a monopsony with one large employer, the firm faces the upward-sloping market supply curve (ACL). To hire one more worker it must raise the wage for all workers, so the marginal cost of labour (MCL) is above ACL. It employs where MRP = MCL and pays the wage on the supply curve.



Initially the monopsonist employs L1 and pays W1, which is below MRP. When productivity rises MRP shifts to MRP2; the new equilibrium is where MRP2 = MCL, so employment rises to L2 and the wage to W2. Both rise, but by less than in a competitive market with the same supply, because the monopsonist restricts employment to keep its wage bill down, and the gap between MRP and the wage remains, so the employer keeps part of the gain as profit. So the impact is likely to be greater in a perfectly competitive labour market.

Evaluation: however, the model of perfect competition rests on assumptions such as perfect mobility, homogeneous labour and perfect knowledge, which rarely hold

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in the real world, so the predicted outcome is a benchmark. Labour productivity is also difficult to measure in many service sectors such as health and education, so firms may not know how far MRP has risen. If productivity is raised by better training, the cost of providing it and the resulting differences in skill challenge the assumptions of a perfectly competitive market, and in an imperfect market the firm may deduct these costs from any benefit, limiting the rise in wages and jobs. The effect on employment also depends on how productivity rises. If it comes from substituting capital for labour, fewer workers may be needed and unemployment could rise. The impact of higher wages on employment depends on how easy it is to substitute capital for labour and the existing ratio of capital to labour in the industry. If higher productivity increases output so much that the product price falls, MR falls and MRP rises less. Where a strong trade union faces a monopsonist (bilateral monopoly), the union may bargain for a large share of the gain, so wages could rise by more than in a competitive market.

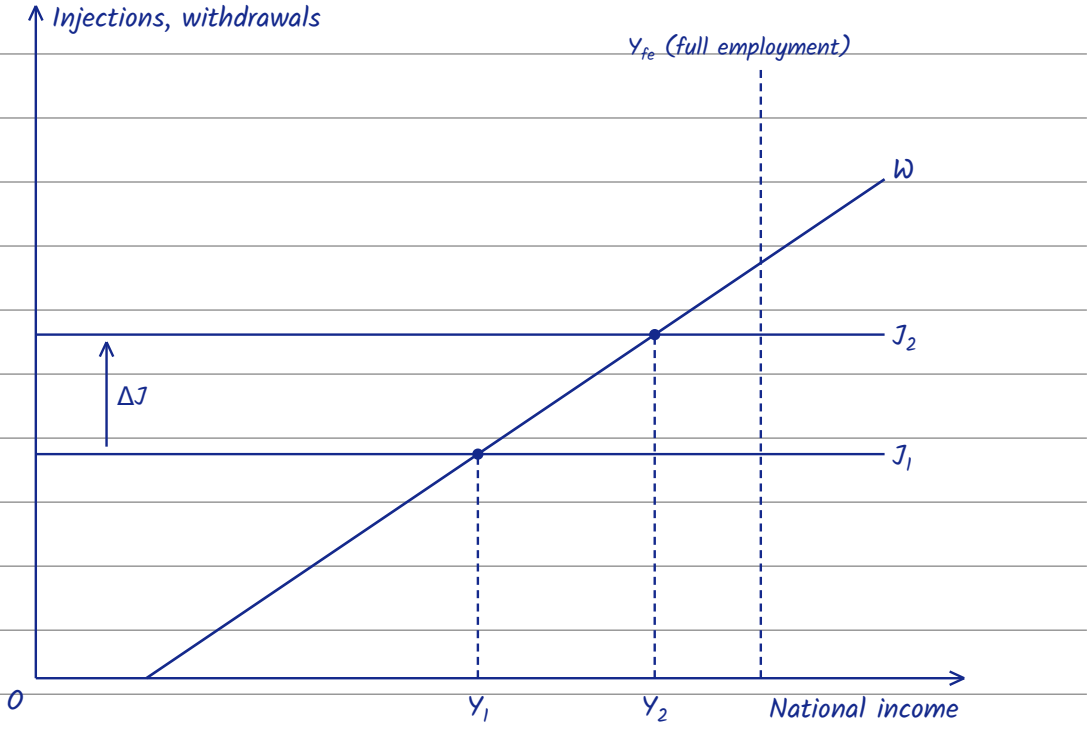
In conclusion, an increase in labour productivity is likely to have a greater impact on wages and employment in a perfectly competitive labour market, where workers are paid their MRP, than in a monopsony, where the employer keeps part of the gain and restricts employment. The difference is smaller where trade unions have bargaining power, and in both markets the effect depends on how productivity was raised and on demand for the final product.

4 Injections (J) are additions to the circular flow of income that do not come from domestic households' spending: investment (I), government spending (G) and exports (X). Withdrawals (W) are leakages out of the circular flow: saving (S), taxation (T) and imports (M). In the circular flow, firms pay incomes to households, which spend them on firms' output; national income is in equilibrium where J = W. The level of employment is the number of people in work; because labour is a derived demand, employment rises when output and national income

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rise.

Withdrawals rise as income rises, because people save, pay tax and import more at higher incomes, so the W line (W = S + T + M) slopes upwards. Injections are assumed to be independent of income, so the J line (J = I + G + X) is horizontal. In the graph the initial equilibrium is at Y1, where J1 = W, below the full employment level of income Yfe, so there is demand-deficient unemployment.



A decrease in interest rates reduces the cost of borrowing. Firms find more investment projects profitable, because the expected return now exceeds the lower cost of finance, so investment rises. Lower rates also reduce the reward for saving and make credit and mortgages cheaper, so households save less and spend more on consumption. Lower rates also cause hot money to flow out, so the exchange rate depreciates: exports become cheaper abroad and imports dearer, so exports rise and imports fall. Higher investment and exports shift injections up from J1 to J2, and lower saving and imports reduce withdrawals at each level of income. National income rises to the new equilibrium Y2, where J2 = W. The rise in income is a multiple of the rise in injections because of the multiplier: k = 1 ÷

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MPW, where MPW is the marginal propensity to withdraw (MPS + MPT + MPM). For example, if MPW = 0.25 the multiplier is 4, so a rise in injections of $10bn raises national income by $40bn. As income and output rise, firms need more workers, so employment rises and demand-deficient unemployment falls. The accelerator can add to this: rising income and demand encourage firms to invest more in capacity, raising injections and employment further.

Evaluation: the size of the effect depends on how much spending responds to the interest rate. If firms and consumers are pessimistic, as after the 2008 financial crisis, investment may be interest-inelastic and lower rates have little effect; when rates are already close to zero they cannot be cut much further. The effect on employment also depends on the size of the multiplier: with high marginal propensities to save and to import, as in a very open economy, much of the extra spending leaks out and the rise in income is small. There are also time lags, often of one to two years, before the full effect on output and jobs is felt.

If the economy is already close to full employment, at Yfe, extra spending creates an inflationary gap: firms cannot raise output much, so prices rise rather than employment. The depreciation also raises the cost of imported raw materials, which may cause cost-push inflation, and cheaper borrowing may cause house price inflation and high household debt, with negative long-term effects. Lower interest rates are also less effective when unemployment is structural, because extra demand does not give workers the skills needed for the jobs available.

In conclusion, a decrease in interest rates is likely to raise employment when there is a deflationary gap and spare capacity, as it raises injections, lowers withdrawals and increases national income by a multiplied amount. The size of the rise in employment depends on the responsiveness of investment and consumption, the size of the multiplier and how close the economy is to full employment, and the effect is weak against structural unemployment.

Question number	
5	Globalisation is the increasing integration of the world's economies through free trade, the free movement of capital and labour, and the transfer of technology between countries, often led by multinational corporations (MNCs). High-income countries have high GDP per capita, advanced infrastructure and good housing, education and health care, with low infant mortality; low-income countries have low GDP per capita, a large primary sector and weaker infrastructure and services. The standard of living includes material well-being, measured by real GDP per capita, and non-material well-being such as health, education and the environment. Improvements in living standards are closely linked with improvements in economic performance. Globalisation can raise living standards in both groups. Through trade, countries specialise according to comparative advantage, so world output rises and consumers gain lower prices and more choice. For high-income countries, cheaper imports of manufactured goods raise real incomes, firms gain larger export markets for high-value services and technology, MNCs earn profits from overseas operations, and migrant workers fill labour shortages. For low-income countries, foreign direct investment by MNCs creates jobs, raises wages above those in agriculture and brings technology transfer and management skills, increasing productivity. Export-led growth raises GDP per capita, as in China, Vietnam and Bangladesh, and remittances from workers abroad raise household incomes. Higher incomes and tax revenue can be spent on health and education, improving non-material living standards, so real income and investment rise in both types of country. Evaluation: the effects are unlikely to be equal. Low-income countries that specialise in primary products may suffer falling terms of trade and volatile prices, and MNCs may repatriate profits, use transfer pricing to avoid tax, pay low wages and offer poor working conditions. Domestic infant industries may be unable to compete with imports, and skilled workers may emigrate (brain drain). In

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high-income countries, cheap imports from low-income economies can cause the decline of manufacturing industries and structural unemployment in some regions, which reduces the living standards of those workers even if average incomes rise. It is also unclear how the benefits will be used. Some low-income countries may not invest the gains in infrastructure, education or health, so living standards would not improve in the long run, while others with good governance grow rapidly. Globalisation increases long-distance transport, which creates more negative externalities such as pollution and carbon emissions, though it is difficult to tell whether these fall more on low- or high-income countries. In addition, the links between globalisation and living standards are not clear, as the standard of living is difficult to measure: GDP per capita ignores inequality and quality of life, so average figures can rise while many people are no better off.

In percentage terms low-income countries may gain more, because they start from a low base and can catch up by adopting existing technology; in absolute terms, and in control over the process, high-income countries and their MNCs often gain more.

In conclusion, the statement is not justified. Globalisation can raise living standards in both high-income and low-income countries, especially in the long term, but the benefits are not equal: they depend on each country's pattern of specialisation, governance and investment of the gains, and within both groups some people lose. In the short term the costs, such as unemployment in high-income countries and exploitation in low-income countries, may outweigh the gains for particular groups.

Cambridge Assessment International Education

Cambridge International AS & A Level

ECONOMICS **9708/43**

Paper 4 A Level Data Response and Essays **May/June 2025**

2 hours

1048908769

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **three** questions in total:
  - Section A: answer Question 1.
  - Section B: answer **one** question.
  - Section C: answer **one** question.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.
- You may use a calculator.
- You may answer with reference to any economy you have studied where relevant to the question.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **4** pages. Any blank pages are indicated.

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Section A

Answer all parts of Question 1.

1 The influence of governments

People often talk as if governments can easily control economic outcomes.

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High-income countries decided to focus on economic growth realising that it was essential to generate revenues and taxes needed to pay for costly investments, for example, the storage of renewable energy, required to reduce the use of fossil fuels.

Sources: Irwin Stelzer, The Sunday Times, *29 January 2023*
Ray Bourne, The Times, *9 February 2023*

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(a) The article refers to structural unemployment. Explain what this means and whether it is the same as the natural rate of unemployment. [3]

(b) To keep unemployment low, one government used fiscal policy. Analyse how this policy can affect unemployment rates. [6]

(c) Explain how the policies of high-income economies towards 'green energy' changed between 2015 and 2022. [3]

(d) Assess whether the article provides sufficient evidence to justify its conclusion that the intervention of governments has little effect on economic outcomes. [8]

Section B

Answer **one** question.

EITHER

2 With the help of a diagram, evaluate the use of indifference curve analysis to explain the relationship between a change in the price of a product and the change in an individual consumer's demand for this product. [20]

OR

3 The growth of a firm using a takeover is desirable because it enables consumers to benefit from lower prices and the firm to gain additional profits.

Evaluate this statement. [20]

Section C

Answer **one** question.

EITHER

4 A country is experiencing stagflation, when there is a high rate of inflation at the same time as a negative output gap.

With the help of a diagram, evaluate the effectiveness of using fiscal policy to solve this problem. [20]

OR

5 A free trade area gains all the benefits associated with being a member of a customs union while avoiding all the costs associated with being a member of a customs union.

Evaluate this statement. [20]

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Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

Question number

Answers for paper 9708/43

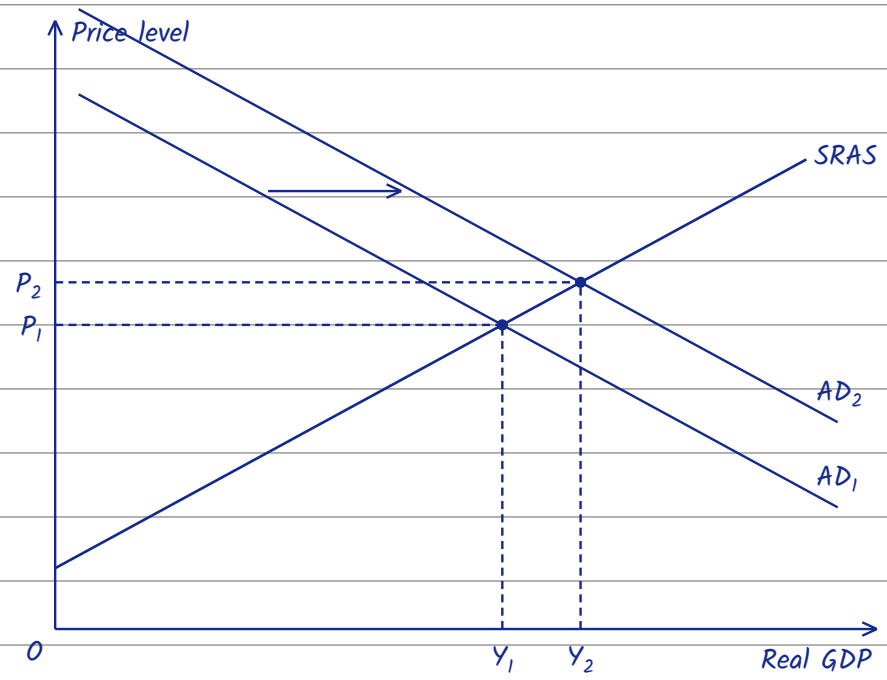
1(a) Structural unemployment occurs when there is a mismatch between the skills (or location) of the people looking for work and the jobs that are available, usually because of a long-term change in the structure of the economy, such as the decline of an industry or new technology. People are willing to work at the going wage but cannot fill the vacancies because they do not have the skills required, or there are fewer jobs in their industry or region than people seeking them.

It is not the same as the natural rate of unemployment. The natural rate is the unemployment that remains when the labour market is in equilibrium, and it includes both structural and frictional unemployment, so structural unemployment is only one part of the natural rate.

1(b) Fiscal policy is the use of government spending and taxation (and so the budget balance) to influence aggregate demand and the economy. To keep unemployment low the government can use expansionary fiscal policy: increase its spending, for example on infrastructure, or cut taxes such as income tax.

Higher government spending is an injection, so AD (= C + I + G + X − M) rises directly. A cut in income tax raises disposable income, so consumption rises. AD shifts right from AD1 to AD2 and real output rises from Y1 to Y2.

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Because the demand for labour is a derived demand, firms need more workers to produce the extra output, so they hire more and demand-deficient (cyclical) unemployment falls. The multiplier makes the effect larger: the extra spending becomes income for others, who spend part of it, creating further rounds of spending and jobs.

Fiscal policy can also reduce structural unemployment if the spending is on training, education or subsidies for firms that employ the long-term unemployed, as this improves skills and mobility. However, if the economy is close to full capacity the rise in AD mainly raises the price level (P1 to P2) rather than output, so unemployment falls by less, and extra demand alone cannot cure a skills mismatch.

1(c) In 2015, at the Paris Agreement, high-income countries were willing to increase the output of green energy and reduce the use of fossil fuels in energy production, and they promised funds to poorer countries to help them cut CO2 emissions. By 2022 they had changed their focus to economic growth, arguing that growth was needed to raise the revenue and taxes to pay for costly investments such as

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the storage of renewable energy. Energy production using fossil fuels continued, and the promised funds from rich to poor countries did not materialise.

1(d) Much of the evidence in the article goes against its conclusion. The war in Ukraine disrupted supplies, but the war was the decision of the Russian government, which also stopped the flow of natural gas. This sharply raised energy prices and inflation and slowed growth, so a government decision had a large effect on economic outcomes.

Central banks raised interest rates to stop inflation rising further. Higher rates raise the cost of borrowing and reduce spending, so this intervention also changed outcomes, again evidence against the conclusion.

High-income governments chose to concentrate on growth and did not direct finance to green energy. This choice affected the energy mix and the level of emissions, so it shows that government decisions do change outcomes.

Some evidence supports the conclusion. The article stresses the billions of private transactions that decide outcomes, but it is not clear whether this supports or contradicts the conclusion, because it gives no measure of their effect compared with government policy. The article does not show that supply-side policies were the reason for low unemployment in Germany, and its evidence on the link between fiscal policy and unemployment does support the view that intervention has had little clear effect.

The evidence is also limited: it comes from newspaper opinion articles, covers a short period, gives few figures and no comparison with what would have happened without intervention.

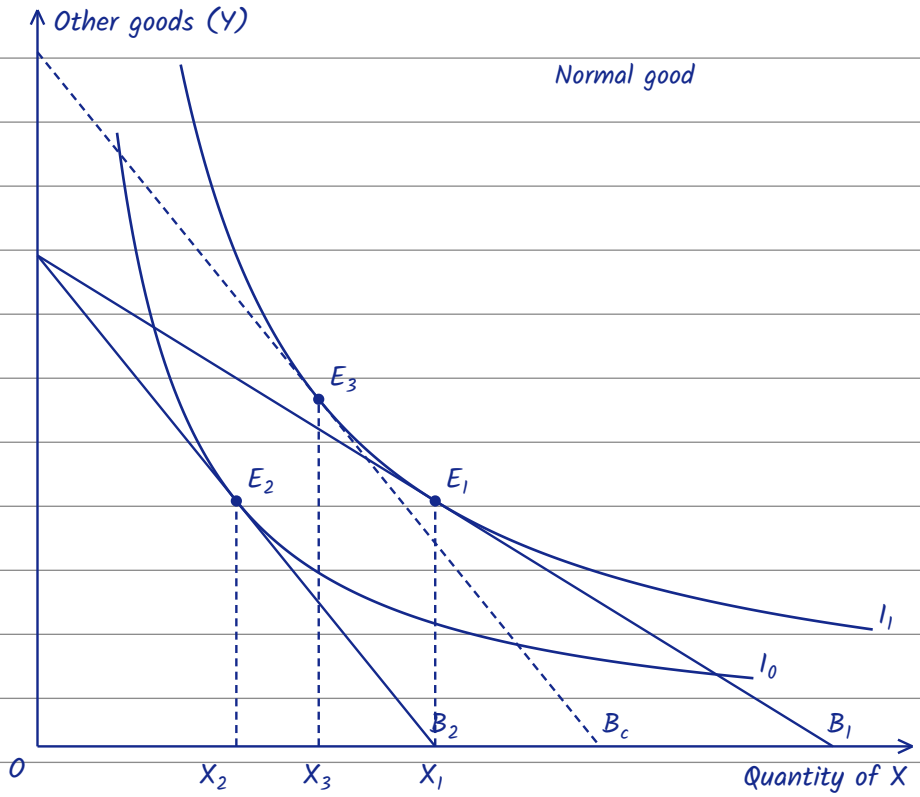
Conclusion: the article does not provide sufficient evidence. Its own examples suggest governments have a significant effect, even if not always the intended one, so the conclusion is not justified.

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2

An indifference curve shows all the combinations of two goods that give a consumer the same level of satisfaction (utility). Indifference curves slope downwards and are convex to the origin, because of a diminishing marginal rate of substitution: the more of good X a consumer has, the less of good Y they will give up for one more unit of X. An indifference map is a set of curves, and curves further from the origin show higher satisfaction. Curves cannot cross.

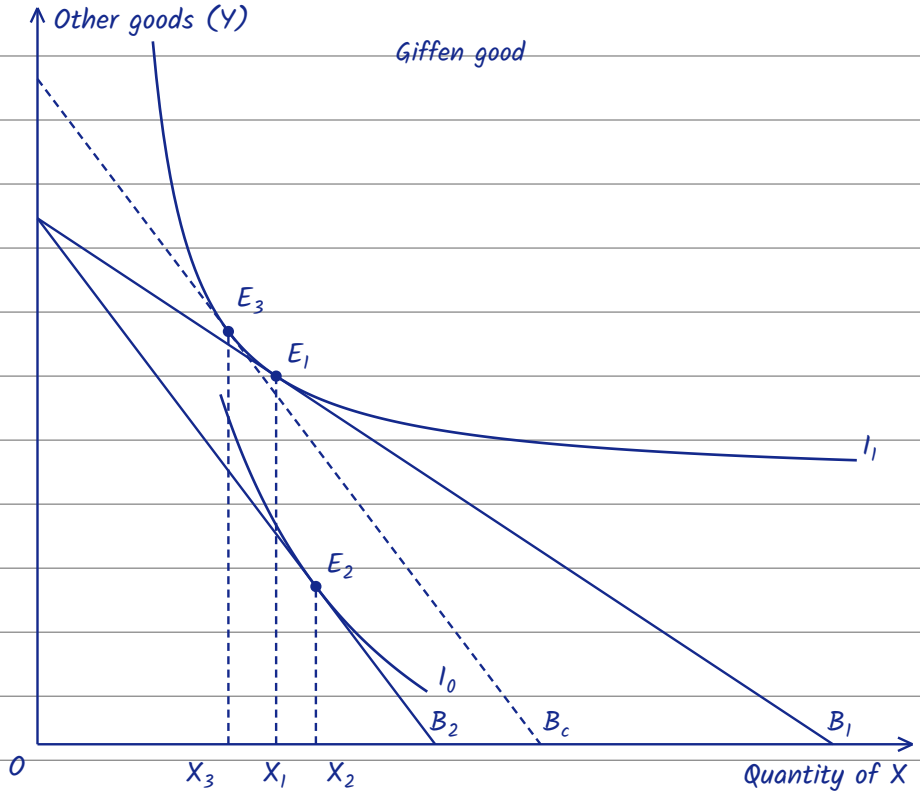
The budget line shows all combinations of X and Y the consumer can just afford with a given income and prices. Its slope is $-Px \div Py$. A change in income shifts it parallel, while a change in the price of X pivots it around the Y intercept. The consumer is in equilibrium where the budget line is tangent to the highest attainable indifference curve, where MRS = $Px \div Py$.



In the diagram the price of X rises, so the budget line pivots inwards from B1 to B2 and the consumer moves from E1 on I1 to E2 on the lower curve I0: demand falls from X1 to X2. This price effect can be split into two parts with a compensated budget line Bc, drawn parallel to B2 (the new relative prices) but

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tangent to the original curve I1. The substitution effect, E1 to E3 (X1 to X3), is the fall in demand because X is now relatively more expensive; it is always negative for a price rise. The income effect, E3 to E2 (X3 to X2), is the fall in demand because the higher price reduces real income. For a normal good both effects reduce demand, so the demand curve slopes downwards. For an inferior good the income effect works in the opposite direction but is smaller than the substitution effect, so demand still falls, by less.



For a Giffen good, a strongly inferior staple that takes a large share of a poor consumer's income, the positive income effect (E3 to E2) outweighs the substitution effect (E1 to E3), so after the price rise demand rises from X1 to X2 and the demand curve slopes upwards. By joining the equilibrium points at different prices (the price consumption curve) an individual demand curve can be derived, so the analysis explains the link between a price change and demand in detail.

Evaluation: the main strength of the analysis is that it separates the substitution

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and income effects and so explains why demand usually falls when price rises, and why inferior and Giffen goods behave differently, without needing to measure utility in units, only to rank bundles. However, it rests on assumptions about human behaviour that determine the shape of the curves. It assumes consumers are rational and always try to maximise satisfaction, yet behavioural economics shows people use rules of thumb, act out of habit and are affected by how choices are framed. It assumes the consumer can correctly tell the difference in satisfaction between very similar bundles, and indifference curves cannot be observed, so the analysis is hard to test.

The model also considers only two goods, whereas real consumers compare the prices of a wide range of goods and substitutes before choosing. It assumes tastes stay constant, but advertising or fashion can change preferences, which changes the shape of the indifference curves and so the final effect of a price change on demand. In practice other things also change at the same time as price, such as income and the prices of other goods.

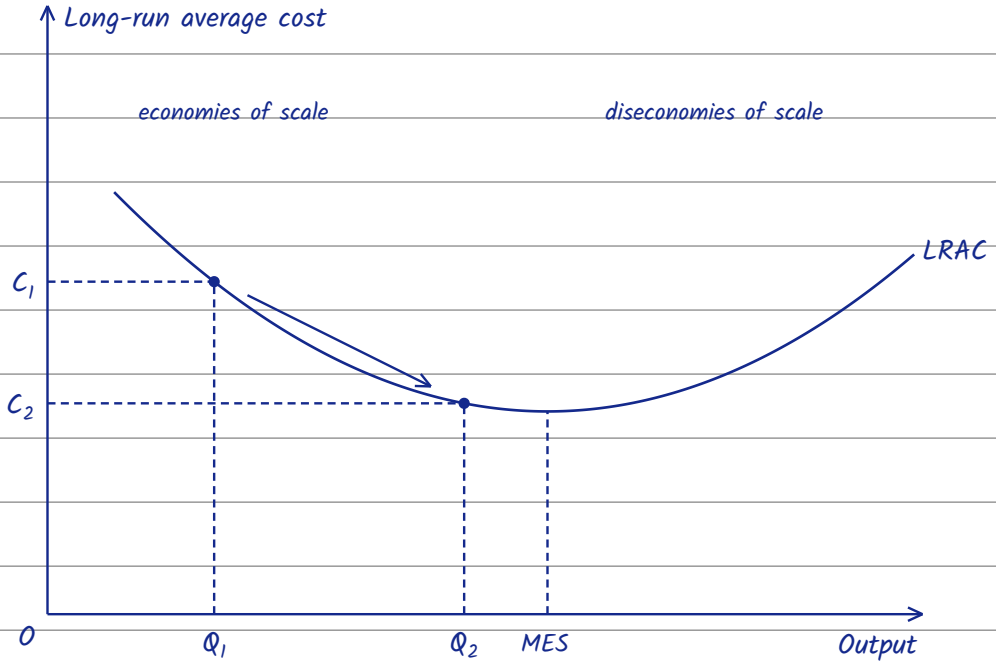
In conclusion, indifference curve analysis is a useful theoretical tool for explaining how and why an individual consumer's demand responds to a price change, especially the different roles of substitution and income effects. It is less effective as a way of predicting actual behaviour, because its assumptions of rational, fully informed consumers with fixed tastes choosing between two goods rarely hold, so it explains the direction of change better than its size.

3

A takeover is a form of external growth in which one firm buys a controlling share of another firm, which may not agree to it. It differs from a merger, where two firms agree to join together to form one new company. A horizontal takeover is of a firm at the same stage of production in the same industry; a vertical takeover is of a supplier (backward) or a customer, such as a retailer (forward); a conglomerate takeover is of a firm in an unrelated industry.

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The main argument for the statement is economies of scale. A horizontal takeover makes the firm much larger, so it can gain technical economies (larger, more efficient machinery and specialisation), purchasing economies (bulk buying of raw materials at discounts), financial economies (cheaper borrowing) and managerial economies. It can also rationalise by closing duplicated offices and plants. As output rises from Q1 to Q2, long-run average cost falls from C1 to C2.



If these cost savings are passed on, consumers benefit from lower prices. A backward vertical takeover can secure supplies and remove the supplier's profit margin, and a forward takeover gives control over distribution, so costs fall further. At the same time the firm can gain additional profits: lower average cost raises the profit on each unit, and a bigger market share increases total revenue. So in theory both consumers and the firm can gain.

Evaluation: the two parts of the statement can conflict. The cost savings from economies of scale may not be passed on to consumers; the firm may keep them as higher profit. A horizontal takeover reduces the number of competitors and increases market power. A firm with monopoly power maximises profit where MC = MR and can restrict output and charge higher prices, so P > MC and there is

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allocative inefficiency. Consumers then lose while the firm gains, which is why competition authorities may investigate, block the takeover or impose price regulation.

Higher profits are not guaranteed either. Takeovers are often very costly: the buyer usually pays a premium above the market value of the shares and may borrow heavily, which can reduce profits in the long run. A much larger organisation may suffer diseconomies of scale beyond the minimum efficient scale, such as communication and coordination problems and culture clashes between the two firms' managers and workers, which raise average cost and could even lead to rising prices. Many takeovers fail to deliver the expected gains.

The outcome also depends on the type of takeover and the market. A conglomerate takeover spreads risk but gives few economies of scale, so few lower prices. If the market is contestable, with low barriers to entry, the threat of new entrants may force the firm to pass cost savings on, so consumers gain.

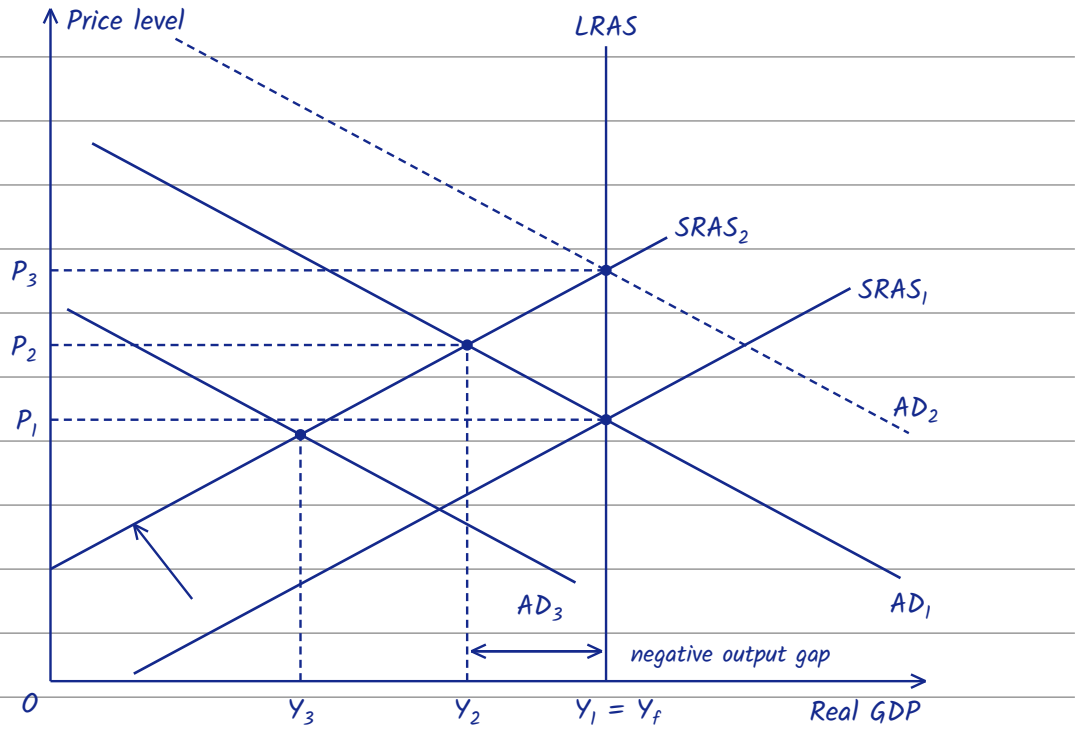
In conclusion, a takeover can benefit both consumers and the firm when it brings genuine economies of scale in a market that stays competitive. However, the statement is too optimistic: lower prices for consumers depend on competition forcing the savings to be passed on, and extra profit depends on avoiding diseconomies and the high cost of the takeover, so a takeover is desirable only in some cases.

4 Inflation is a sustained rise in the general price level, which reduces the purchasing power of money. High inflation causes problems: it reduces the real incomes of people on fixed incomes, creates uncertainty that discourages investment, redistributes from savers to borrowers and makes exports less price competitive. A negative output gap exists when actual real GDP is below potential real GDP, so there is spare capacity and demand-deficient unemployment.

Stagflation is usually caused by a fall in aggregate supply, for example a large rise

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in the world price of oil or in wages. Costs of production rise, so SRAS shifts left from SRAS1 to SRAS2. The price level rises from P1 to P2 while real GDP falls from Y1 (full employment, Yf) to Y2, creating a negative output gap of Y2 to Yf at the same time as inflation.



Fiscal policy is the use of government spending and taxation to influence aggregate demand. Expansionary fiscal policy, higher government spending or lower taxes, shifts AD right from AD1 to AD2. Through the multiplier, output rises back to Yf and the negative output gap is closed, so unemployment falls. However, the price level rises further to P3, so inflation becomes worse.

Contractionary fiscal policy, cutting spending or raising taxes, shifts AD left from AD1 to AD3. This reduces inflationary pressure, but real GDP falls further to Y3, so the negative output gap widens and unemployment rises. This is the central problem: fiscal policy acts on demand, but stagflation is caused by supply, so reducing one problem with demand management makes the other worse.

Fiscal policy can be more effective if it is used to affect supply rather than demand. Cuts in taxes on firms, subsidies for energy, or spending on infrastructure,

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education and training lower costs and raise productivity, shifting SRAS and LRAS to the right. This lowers the price level and raises output at the same time, so it tackles both parts of stagflation.

Evaluation: the effectiveness of fiscal policy depends on the cause of the inflation. If it is imported cost-push inflation from world energy prices, fiscal policy cannot remove the cause, and expansionary policy could create a wage-price spiral if workers expect higher inflation. There are also time lags in deciding, approving and spending, so the policy may take effect after the shock has passed. Expansionary policy increases the budget deficit and national debt, and government borrowing may raise interest rates and crowd out private investment, reducing the effect on output. The size of the multiplier depends on the marginal propensities to save, tax and import, so in a very open economy much of the extra spending leaks out on imports.

Supply-side measures are likely to be more suitable, but they work mainly in the long run. Raising productivity often means investment in new technology, which may increase unemployment in the short run, and spending on education takes years to have an effect. Other approaches, such as reducing regulation or cutting production costs, may be needed alongside fiscal policy, while monetary policy may be used to hold inflation expectations down.

In conclusion, fiscal policy that works through aggregate demand is not effective at solving stagflation, because it can reduce either inflation or the negative output gap only by making the other worse. In the short run a government must choose which problem to target, often by temporary help such as energy subsidies; in the long run fiscal policy is most effective when it is used for supply-side measures that raise productivity, as only an increase in aggregate supply reduces inflation and closes the output gap together.

5 A free trade area is a group of countries that remove tariffs and quotas on goods

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traded between members, but each member keeps its own tariffs on imports from non-members, for example the USMCA (United States, Mexico, Canada). Because external tariffs differ, it needs rules of origin to stop goods entering through the member with the lowest tariff. A customs union also removes tariffs between members, but in addition all members adopt a common external tariff on imports from non-members, for example the EU customs union. So a customs union is a deeper stage of integration.

Both bring similar benefits. Removing internal tariffs causes trade creation: high-cost domestic production is replaced by cheaper imports from more efficient member countries, so consumers pay lower prices and have more choice. Countries can specialise according to comparative advantage and sell to a larger market, so firms gain economies of scale. The absence of import tariffs reduces costs for firms using imported components, and greater competition raises efficiency and labour productivity. Output, incomes and economic growth rise, and the larger market attracts inward foreign direct investment.

The statement argues that a free trade area gets all of these benefits while avoiding the costs of a customs union. There is some truth in this. Members of a customs union lose economic and political sovereignty, as they cannot set their own external tariffs or sign their own trade deals with other countries. The common external tariff also causes trade diversion: a member may switch imports from a low-cost producer outside the union to a higher-cost producer inside it, because the outsider faces the tariff. This misallocates the world's resources and raises prices for consumers. A free trade area member can keep low tariffs on efficient outside producers and negotiate its own agreements, so it suffers less trade diversion and keeps control of trade policy.

Evaluation: however, a free trade area does not gain all the benefits of a customs union. Members of a customs union share protection from competitors outside the union while having access to a large single market, which can encourage

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investment. Goods circulate freely once inside the union, without checks on rules of origin, so trade is cheaper. In a free trade area firms must prove where their products were made, which involves paperwork and border delays, and some trade creation is lost. A customs union also negotiates as one bloc, so it has much more bargaining power in trade talks with large economies, and its closer integration may increase political stability.

Nor does a free trade area avoid all the costs. Trade diversion can still happen in a free trade area, since internal tariffs are zero while external tariffs remain. Both types of agreement may also use non-tariff barriers, such as different product standards, which reduce trade inside the bloc and with the rest of the world. Industries that were protected before may decline in both cases, causing structural unemployment.

The balance also depends on the countries involved. Trade creation is likely to be larger than trade diversion when members were already major trading partners and when the external tariff is low, so the cost of a customs union is smaller. For a small country that trades mainly with non-members, the flexibility of a free trade area may be worth more.

In conclusion, the statement is only partly true. A free trade area gains the main benefits of trade creation, specialisation and economies of scale while avoiding the loss of control over external trade policy. But it does not gain all the benefits, because it loses the free circulation of goods, shared protection and joint bargaining power, and it does not avoid all the costs, because rules of origin and some trade diversion remain.

Cambridge Assessment International Education

Cambridge International AS & A Level

ECONOMICS **9708/44**

Paper 4 A Level Data Response and Essays **May/June 2025**

2 hours

3919006972

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **three** questions in total:
  - Section A: answer Question 1.
  - Section B: answer **one** question.
  - Section C: answer **one** question.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.
- You may use a calculator.
- You may answer with reference to any economy you have studied where relevant to the question.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].

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Section A

Answer all parts of Question 1.

1 **Economic development in Bangladesh**

Since 1971 Bangladesh has experienced significant economic development, moving from the low-income to the lower-middle-income country classification. Gross National Income (GNI) per capita at constant 2017 prices in United States dollars ($) rose from $2342 to $5823 between 2000 and 2020. Over the same period, the country's Human Development Index (HDI) rose from 0.49 to 0.66.

During this period, Bangladesh underwent changes in employment as it moved from the agricultural sector to the manufacturing and services sectors.

First, in agriculture, output increased by more than 100% whilst employment fell from 65% to 38% of the working population. This change was helped by innovation in crop irrigation, land preparation and harvesting, aided by the development of local industries to provide the capital equipment needed.

A second source of economic development was the growth in the clothing industry producing ready-made garments (RMG) that contributed about 11% of Bangladesh's Gross Domestic Product (GDP) and employed 4.4 million workers of which 2.5 million were women (2020). The industry uses significant division of labour with production split into 10 or more processes, for example, cutting, sewing zips, assembly and packaging.

The value of raw materials imported for the RMG industry was about half of the value of the industry's exports. Net exports from this sector stood at $23 billion. This enabled Bangladesh to both import a wider range of goods and services and reduce the deficit on its balance of trade in goods.

In 2020, there were more than 4000 RMG manufacturers in Bangladesh, differentiated by the quality of their products and the speed of their delivery. The RMG industry supplied more than 100 major US and European retailers.

However, the RMG industry has critics who point to air and water pollution from the chemicals used in cotton growing and manufacturing clothes. The industry is also accused of employing child labour and of having poorly constructed factories.

Sources: Bangladesh overview: World Bank, 11 April 2024 and Quarterly Review on Readymade Garments, Bangladesh Bank Research Department, 14 February 2023

(a) Identify what is included in the HDI. [3]

(b) The passage states that the RMG industry 'uses significant division of labour'. Explain how this is likely to affect the average costs of firms in Bangladesh's RMG industry. [3]

(c) Identify the probable market structure of the RMG industry in Bangladesh and with the help of a diagram, consider the likely effect on the level of long-run profits of firms in this industry. [6]

(d) With reference to the article, assess whether there is enough evidence to conclude that living standards in Bangladesh have improved since 1971. [8]

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Section B

Answer **one** question.

EITHER

2 With the help of a diagram, consider whether economic efficiency can be achieved without government intervention in a market economy. [20]

OR

3 Evaluate whether the marginal revenue product theory (MRP) always explains the differences in wages. [20]

Section C

Answer **one** question.

EITHER

4 A country with an open economy has falling demand for exports.

Consider the view that monetary policy alone will solve this problem. [20]

OR

5 Evaluate how a country might increase its potential economic growth. [20]

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Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

Question number

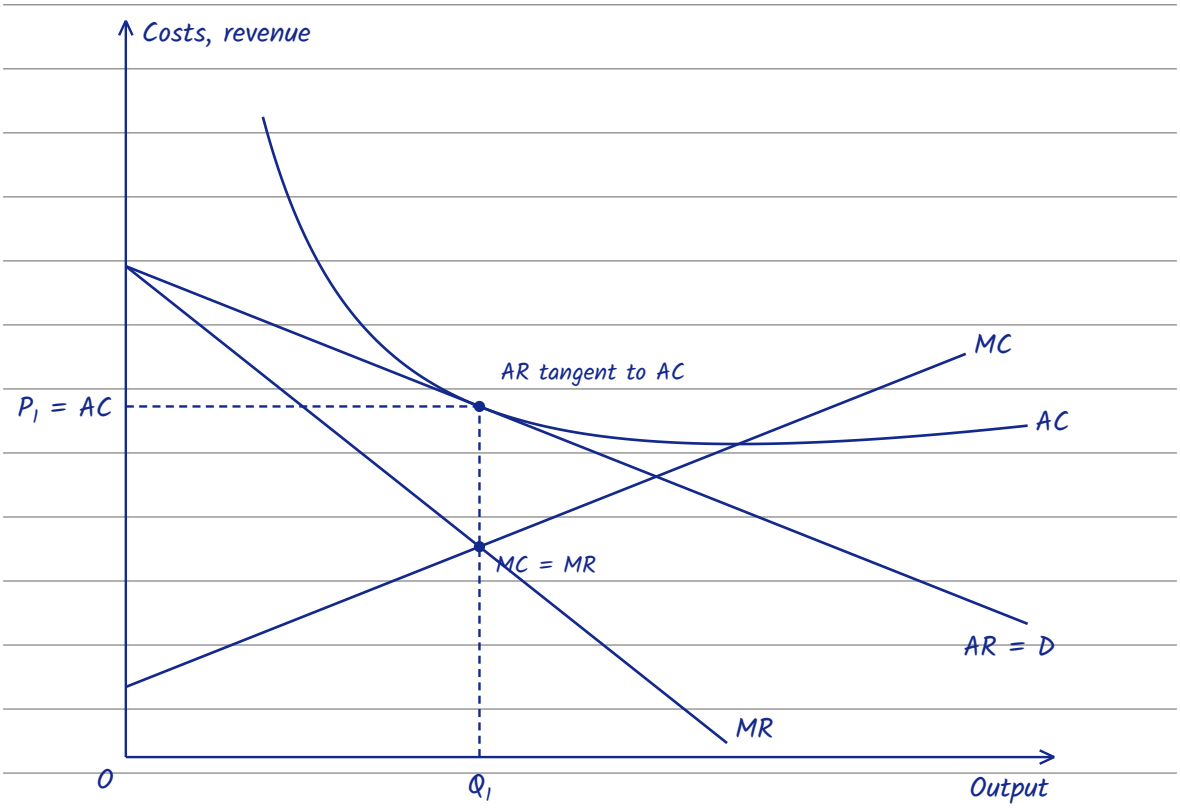
Answers for paper 9708/44

1(a) The HDI is a composite index of three dimensions: health, measured by life expectancy at birth; education, measured by mean years of schooling and expected years of schooling; and income, measured by Gross National Income (GNI) per capita at purchasing power parity.

1(b) Division of labour means splitting production into separate tasks, with each worker specialising in one task, for example cutting, sewing zips, assembly and packaging. Through repetition workers become more skilled and faster, no time is lost moving between tasks and specialised machinery can be used, so labour productivity (output per worker) increases. With the same wage bill spread over more output, average (total) costs of RMG firms fall.

1(c) The probable market structure is monopolistic competition: there are more than 4000 RMG manufacturers, their products are differentiated by quality and speed of delivery, and barriers to entry are low.

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Each firm faces a downward-sloping demand curve (AR) because its product is differentiated, with MR below it. It maximises profit where MC = MR, at Q1, and charges P1. If firms earn supernormal profit in the short run, new firms are attracted and enter easily because barriers are low. Each firm loses customers, so its AR curve shifts left and becomes more elastic until it is tangent to the AC curve at Q1. Then P1 = AC, so in the long run firms earn only normal profit (if they make losses, firms leave until normal profit is restored). A firm may earn supernormal profit for a while if it differentiates successfully, for example by faster delivery to major retailers.

1(d) Living standards include monetary measures, such as real income per head, and non-monetary measures, such as health, education, working conditions and environmental quality.

Evidence of improvement: GNI per capita at constant 2017 prices rose from $2342 to $5823 between 2000 and 2020, an increase of $3481, or (3481 ÷ 2342) × 100

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= 148.6%. Because it is at constant prices this is a real rise in average income. The HDI rose from 0.49 to 0.66, showing improvement in health and education as well as income, and Bangladesh moved from low-income to lower-middle-income status. Agricultural output increased by more than 100% while its share of employment fell from 65% to 38%, so productivity rose. Net exports of the RMG sector of $23 billion improved the balance of trade in goods and allowed a wider range of goods and services to be imported, and 4.4 million jobs were created, 2.5 million for women.

Evidence against: the RMG industry creates negative externalities such as air and water pollution, is accused of employing child labour, and has poorly constructed factories, so working conditions are bad. Many agricultural jobs were lost. GNI per capita is an average and tells us nothing about how income is distributed.

Conclusion: there is not enough evidence. The figures cover only 2000 to 2020, not the whole period since 1971, and there is no separate information on housing, education or health. The data suggest material living standards have improved, but the costs mean we cannot be sure overall living standards have risen for everyone.

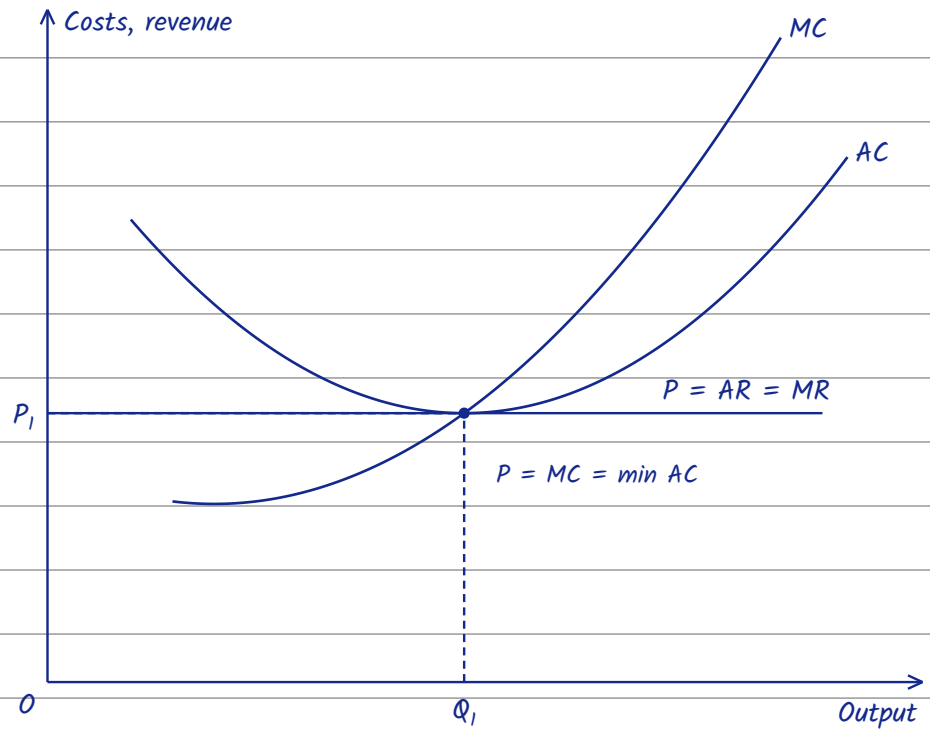
2

Economic efficiency means making the best use of scarce resources. Productive efficiency is producing at the lowest possible average cost, the minimum point of the AC curve. Allocative efficiency is producing the combination of goods that consumers most want, where price equals marginal cost (P = MC), so the value placed on the last unit equals the cost of producing it. When both are achieved the economy is Pareto efficient. In a market economy resources are allocated by the price mechanism, without government intervention.

In perfect competition there are many buyers and sellers, a homogeneous product, perfect information and freedom of entry and exit. Each firm is a price taker (P = AR = MR) and maximises profit where MC = MR. Supernormal profit attracts new firms and losses cause firms to leave, so in the long run each firm makes normal

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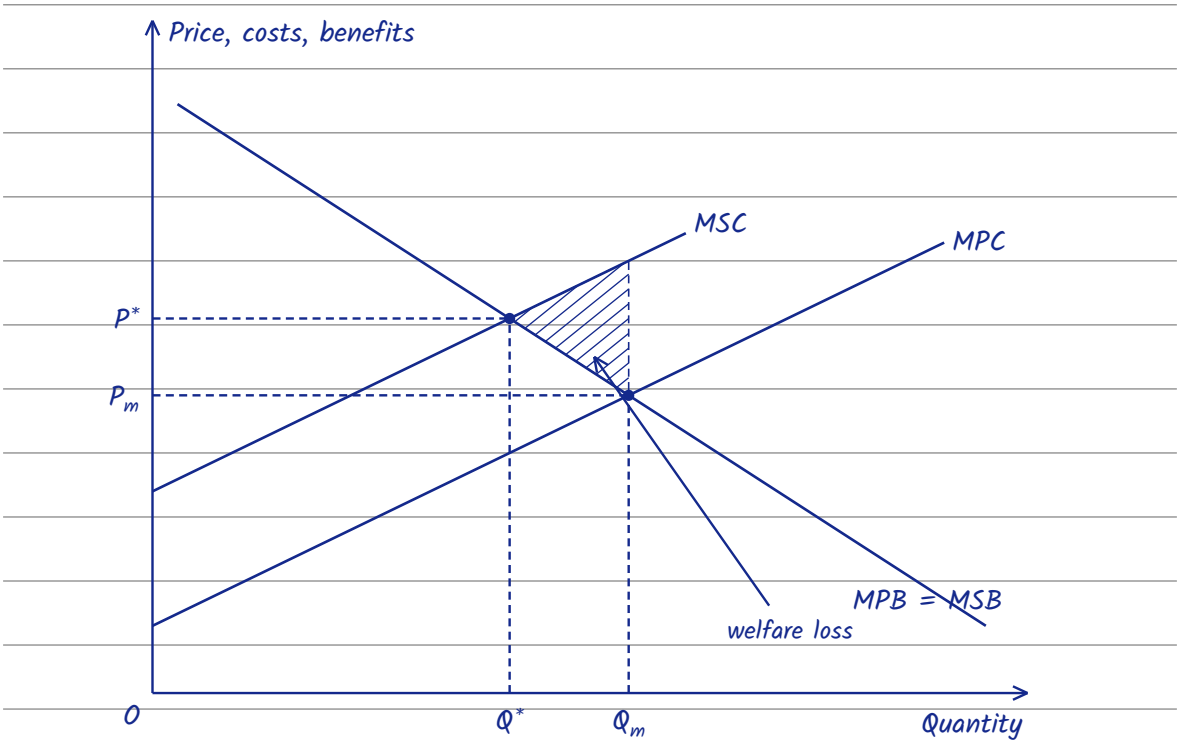
profit where P = AC.



At QI and PI, P = MC, so the firm is allocatively efficient, and P = minimum AC, so it is productively efficient. So in theory efficiency can be achieved without any government intervention: competition and self-interest lead firms to produce what consumers want at the lowest cost.

However, real markets often fail. Negative externalities, such as pollution from production, cause the social cost to exceed the private cost. The market produces at Qm where MPB = MPC rather than at Q^* where MSB = MSC, so there is over-production and a welfare loss (shaded). Positive externalities, for example from education and health care, cause under-consumption.

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Imperfect information means merit goods are under-consumed and demerit goods over-consumed. Pure public goods such as street lighting and defence are non-rival and non-excludable, so the free-rider problem means the market does not supply them, and quasi-public goods are under-supplied. Monopolies protected by barriers to entry restrict output and charge prices above MC, so they are neither allocatively nor productively efficient. Factor immobility causes unemployment and a loss of productive efficiency. Markets can also produce an unfair distribution of income.

Governments can correct these failures with indirect taxes equal to the external cost, subsidies for merit goods, direct provision of public goods, regulation and competition policy, pollution permits, property rights, information and nudges.

Evaluation: intervention does not automatically improve efficiency. The government may not be able to measure the extent of the market failure accurately, for example the money value of external costs, so a tax may be set too high or too low. Every policy has an opportunity cost: the resources used for subsidies or direct provision could have been used elsewhere, and subsidies add to the budget deficit

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while taxes may reduce incentives. Intervention can also have unintended consequences, such as regulatory capture, the cost of bureaucracy and political interference, leading to government failure. On the other hand, some failures can be solved without government: if property rights are clear and the number of people affected is small, private bargaining may reach the efficient output, and contestable markets keep prices close to cost.

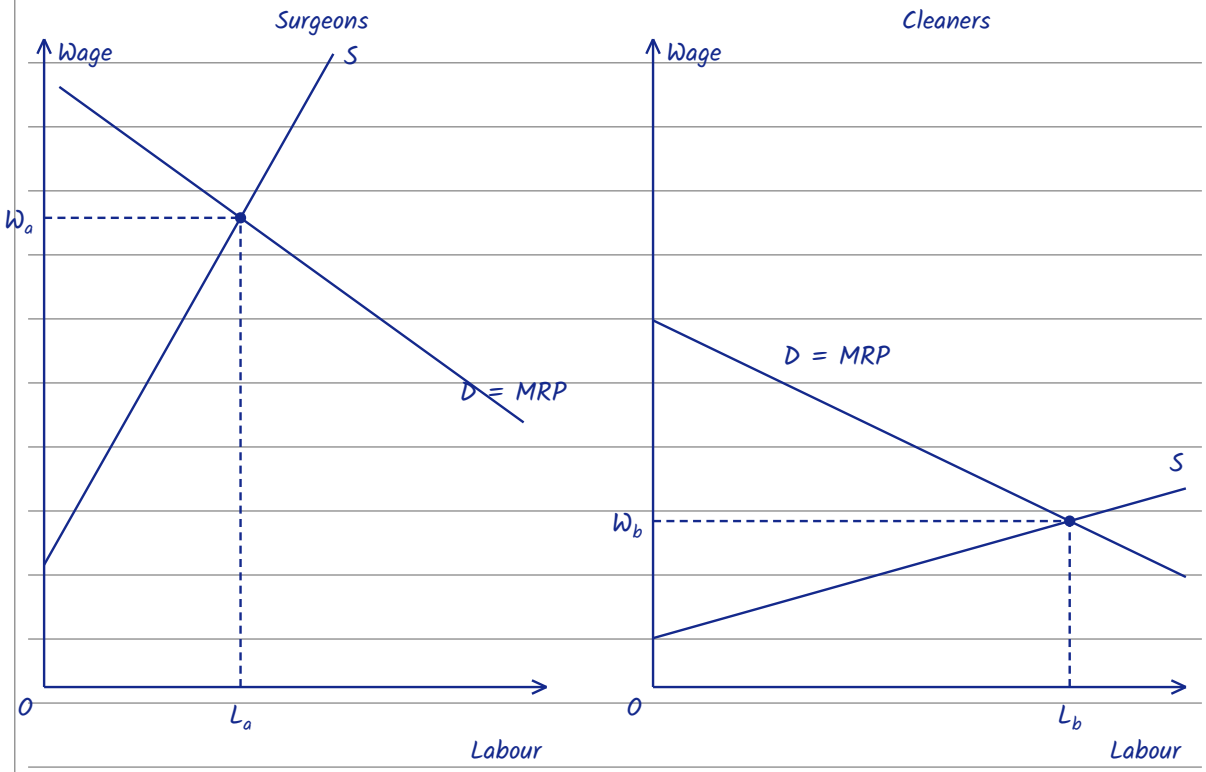
In conclusion, economic efficiency can be achieved without government intervention only in the theoretical case of perfect competition with no externalities, public goods or information failure, which rarely exists. In practice some intervention is needed, but how far it improves efficiency depends on whether the government can measure the failure and design a policy whose benefits exceed its costs.

3 Marginal revenue product (MRP) is the extra revenue a firm earns from employing one more worker. It equals the marginal physical product (MPP), the extra output of that worker, multiplied by marginal revenue; in a perfectly competitive product market MR equals price, so MRP = MPP × P. Because of diminishing returns, MRP falls as more workers are employed. A profit-maximising firm employs workers up to the point where MRP equals the wage, so the MRP curve is the firm's demand curve for labour. Demand for labour is a derived demand.

MPP depends on the skills, education and training of the workers and on the amount and quality of capital equipment they use. MR depends on the price of the product and on market structure: a firm with monopoly power faces MR below price, so its MRP is lower than in perfect competition.

In the theory the wage is set by the interaction of the demand for labour (MRP) and the supply of labour. Supply depends on the size and age structure of the population, education and training needed, migration, working conditions and other non-monetary benefits.

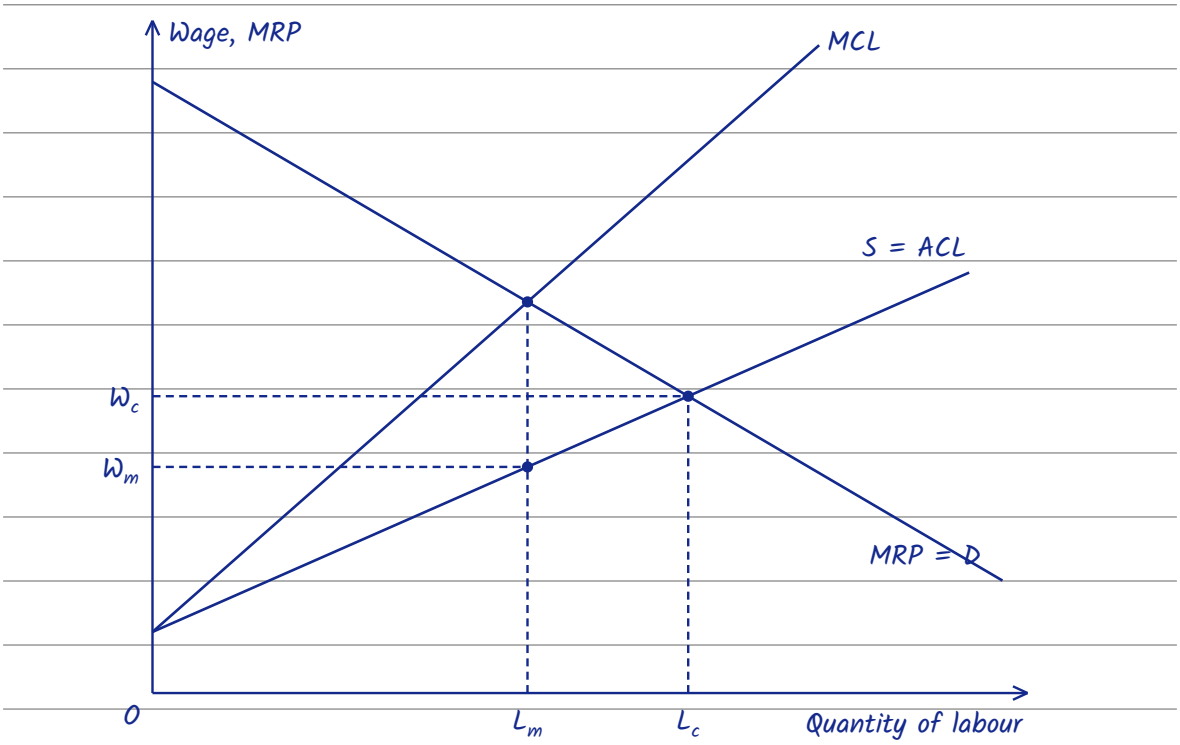
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The diagram explains the wage difference between surgeons and cleaners. Surgeons have a high MRP because their skills are scarce and their output is highly valued, and their supply is low and inelastic because of the long training needed. So the wage Wa is high. Cleaners have a low MRP and a large, elastic supply because few qualifications are needed, so the wage Wb is low. This shows how MRP, together with supply, explains many differences in wages, for example between skilled and unskilled workers or between industries.

Evaluation: however, MRP theory does not always explain wage differences. It usually assumes perfect competition, which does not hold in real labour markets. In a monopsony the employer pays a wage below MRP, where MRP = MCL, so workers with the same MRP may earn different wages depending on the power of their employer.

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Here employment is Lm and the wage Wm, below both the MRP of the last worker and the competitive wage Wc. Trade unions can raise wages above the competitive level through collective bargaining, and governments intervene through minimum wages, pay scales and regulations such as staffing ratios in childcare, so wages are not set by MRP alone.

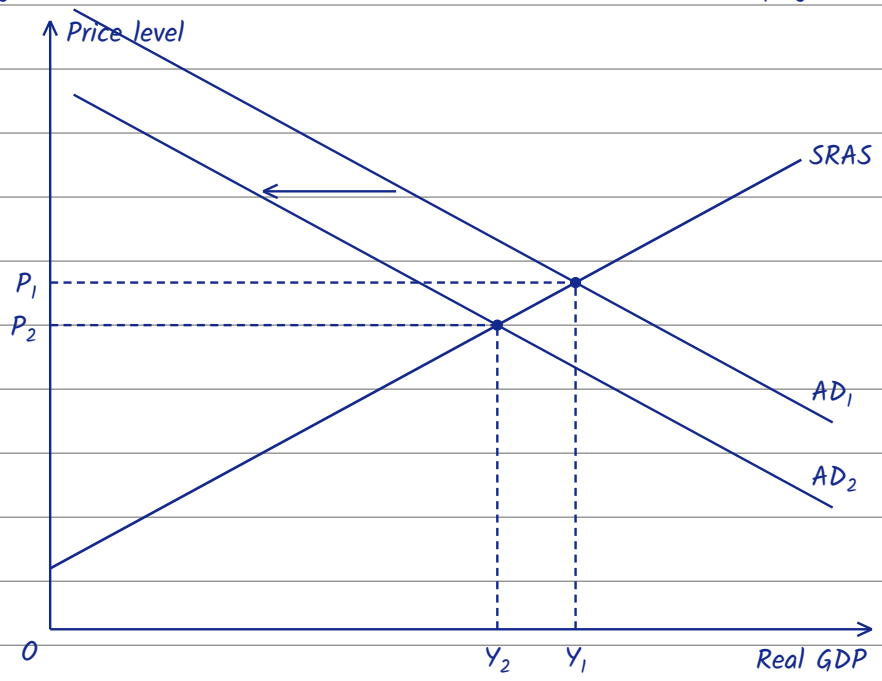
MRP is also very hard to measure. Labour is often collaborative, so employers cannot know the output of one worker in a team. In services such as health and education productivity is hard to measure and there is often no market price for the product, for example a nurse's care, so MRP cannot be calculated and pay is set by government. Wage differences also result from discrimination by gender or ethnicity, market segmentation, imperfect information and immobility of labour, and from differences in the capital equipment workers have. Top executive pay may be set by boards and reflect bargaining power rather than MRP.

In conclusion, MRP theory helps to explain the demand side of the labour market and many broad differences in wages, especially when combined with supply. But it does not always explain them: where markets are imperfect, productivity cannot

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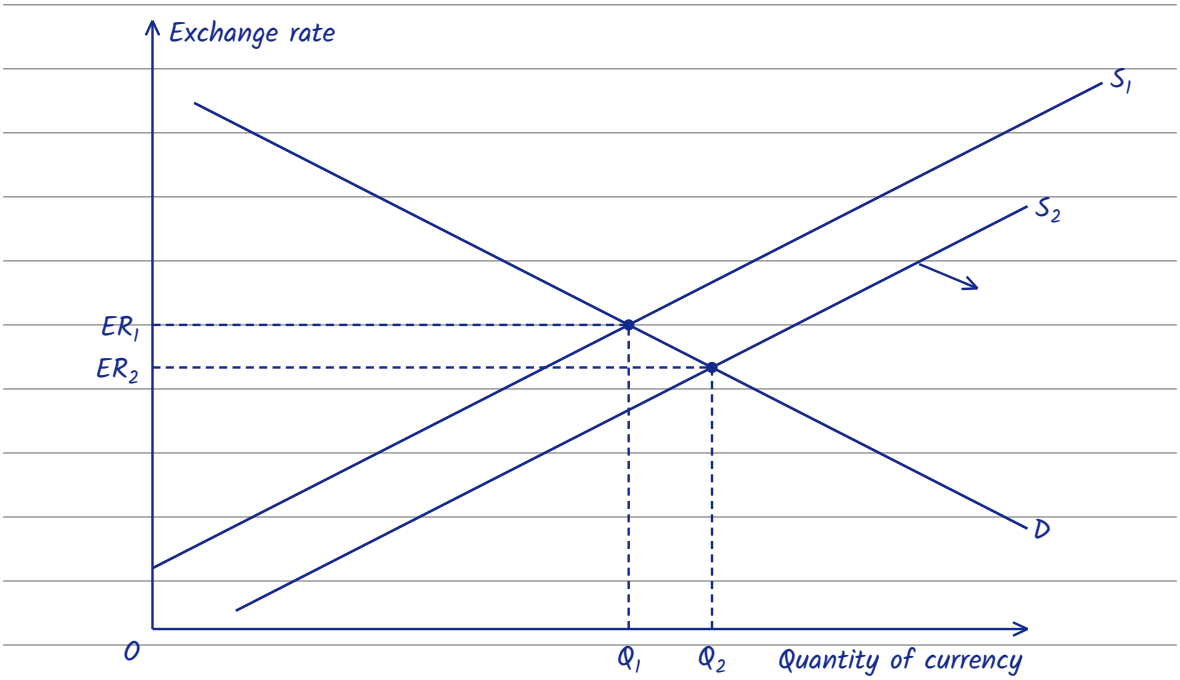
be measured, or wages are set by unions, governments or discrimination, other factors matter more.

4 An open economy is one that trades with other countries, so foreign trade is part of aggregate demand: AD = C + I + G + (X − M). Exports are an injection into the circular flow. Falling demand for exports, for example because of a recession in trading partners or loss of competitiveness, reduces (X − M), so AD shifts left from AD1 to AD2. Through the negative multiplier real GDP falls from Y1 to Y2, unemployment rises, and the current account of the balance of payments worsens.



Monetary policy is the use of interest rates, the money supply and the exchange rate to influence the economy. The central bank can reduce interest rates or increase the money supply, for example by quantitative easing. Lower interest rates make saving in the country less attractive, so hot money flows out: the supply of the currency on the foreign exchange market rises from S1 to S2 and the exchange rate falls from ER1 to ER2. Under a fixed exchange rate the government can devalue directly.

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The depreciation makes exports cheaper in foreign currency and imports dearer in domestic currency, so the demand for exports rises and imports fall, increasing (X – M). Through the monetary transmission mechanism lower interest rates also raise consumption and investment, because borrowing is cheaper. AD shifts back to the right, so output and employment recover.

Evaluation: whether this solves the problem depends on the price elasticities of demand for exports and imports. By the Marshall-Lerner condition, the trade balance only improves if the sum of the elasticities is greater than one. In the short run demand is often inelastic, as contracts are fixed and buyers take time to switch, so the balance may first get worse (the J-curve effect) and only improves in the long run.

Monetary policy also does not address the cause. If exports have fallen because of a recession abroad, lower prices may not raise demand much, since foreign incomes have fallen. If the cause is poor quality, design or reliability, a lower price will not make the products competitive; supply-side policies such as investment in training, research and development or subsidies for exporters are needed to improve non-price competitiveness.

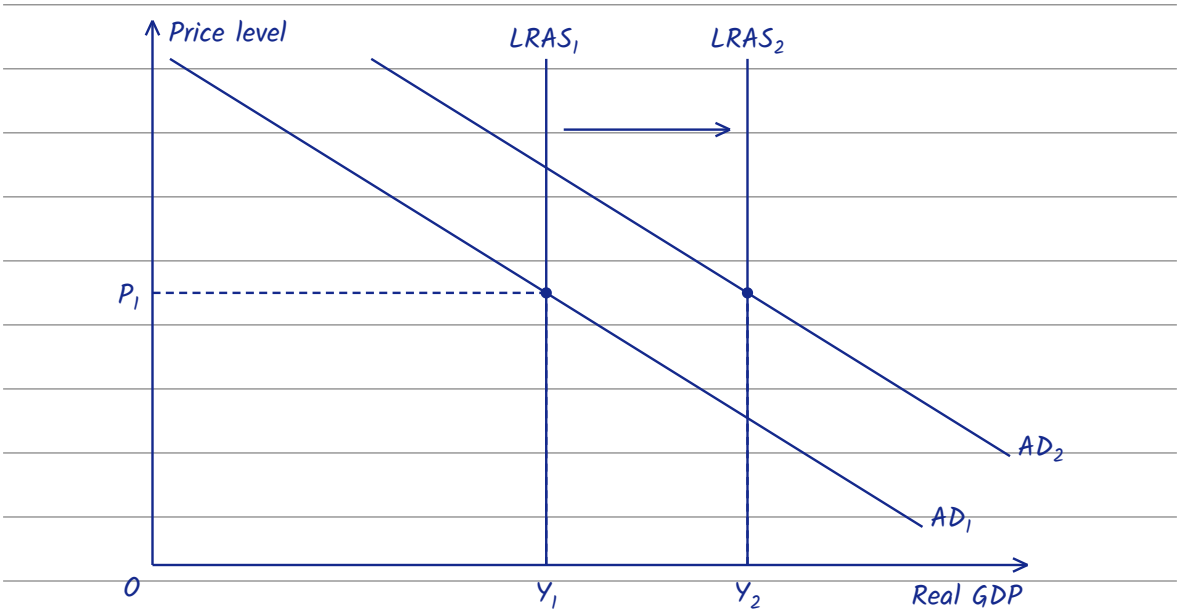
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There are also conflicts with other government aims. A depreciation raises import prices, which can cause cost-push and imported inflation and raise the cost of imported raw materials for exporters. Lower interest rates may fuel asset and house price inflation and rising debt. If interest rates are already very low there is little room to cut them. Other countries may respond with their own depreciation, and there are time lags before the policy takes effect. Monetary policy is decided by the central bank and may also be needed to control inflation.

In conclusion, monetary policy can help to solve a fall in export demand in the short run by depreciating the currency and boosting AD, especially if demand for exports is price elastic. It will not solve the problem alone, because its effect depends on elasticities and the cause of the fall, and it may create inflation. A combination with supply-side policies that improve the competitiveness of exports is more likely to succeed in the long run.

5 Potential economic growth is an increase in the productive capacity of the economy, the maximum output it can produce when all resources are fully and efficiently employed. It is shown by a rightward shift of the LRAS curve, or an outward shift of the production possibility curve. It depends on the quantity and quality of the factors of production and on productivity and technology. Actual growth, by contrast, is an increase in real GDP using spare capacity.

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In the diagram LRAS shifts from LRAS1 to LRAS2, so potential output rises from Y1 to Y2. If AD also rises from AD1 to AD2, actual output grows without inflation.

Education and training: government spending on schools, universities and vocational training increases human capital. Workers become more productive and more occupationally mobile, so the quality of labour rises and structural unemployment falls. This raises output per worker and shifts LRAS to the right.

Investment in infrastructure and in research and development: better transport, energy and communication networks reduce firms' costs, and tax credits or grants for research encourage innovation and new technology, raising the productivity of capital and labour. Attracting foreign direct investment by MNCs brings capital and technology transfer.

Labour market and competition policies: cutting income tax and reforming benefits increase the incentive to work, raising the size of the labour force; higher net migration adds workers with scarce skills. Privatisation, deregulation and competition policy increase competition, giving firms an incentive to cut costs and innovate, so productive efficiency improves.

Evaluation: these policies have long time lags. Education and research may take years or decades to raise productivity, so they do not help quickly. They are

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expensive, and spending is constrained by how much the government can borrow: high borrowing may raise interest rates and make domestic and international lenders reluctant to lend, and may crowd out private investment. Monetary policy aimed at promoting long-run growth may also be compromised by a growth in borrowing and a rise in interest rates. There is an opportunity cost, as the money could have been spent on health or welfare.

Supply-side policies may face political constraints, for example opposition from trade unions to labour market reform, or the government may rely on industrial support. Growth can be limited by shortages of factors of production such as skilled labour, raw materials or energy. Privatisation may simply replace a public monopoly with a private one that exploits consumers and workers, and cutting taxes may increase inequality. Faster growth can also have an environmental impact, through pollution and resource depletion, so it may not be sustainable.

The best policy also depends on the country. A low-income country may gain most from basic education, infrastructure and FDI, while a high-income country may rely more on research, innovation and competition.

In conclusion, a country can increase its potential growth mainly by improving the quantity and quality of its factors of production through education, infrastructure, investment in technology and labour market reforms. Education and innovation are likely to be most effective in the long run, but every policy is limited by time lags, government finance and political constraints, so a combination of policies, supported by enough aggregate demand to use the new capacity, is needed.