Cambridge Assessment International Education

Cambridge International AS & A Level

ECONOMICS **9708/41**

Paper 4 A Level Data Response and Essays **October/November 2025**

2 hours

9658429414

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.

DC (PQ) 351815/3
© UCLES 2025

[Turn over

stemup.co.uk

Section A

Answer all parts of Question 1.

1 **Working overseas**

Many low-income countries have large proportions of the population below the World Bank's absolute poverty level of $2.15 per day (United States dollars, 2022). One way in which these countries try to reduce their poverty is by the migration of workers to richer countries. The migrants send a portion of their incomes, known as remittances, back home to support their families.

These overseas workers are a link between migration and development. The flow of remittance money is greater than the foreign direct investment and official development aid received by middle-income and low-income countries. Total remittances received by those countries in 2022 was $650 billion, of which 45% ($293 billion) was received by only five countries.

About 50% of migrants from low-income countries went to high-income countries.

Migrants can find their incomes increase significantly. A nurse may make seven times more in Australia than in the Philippines, adjusted for purchasing power parity (PPP).

Unlike official aid, remittances flow directly to their receivers and are a stable source of income. They can buy extra food and they may provide savings for the receiver. They may reduce child labour in disadvantaged families and allow for higher spending on education through higher enrolments and more years of completed schooling.

Migration can reduce unemployment and raise wages in home countries. Migration may lead to larger benefits for the home country by increasing the rates of return on human capital caused by the creation of better, more productive, and higher paying jobs.

When the flow of migrants goes to a host country whose population is ageing, it may reduce the average age of the population. This can lead to an increase in the size of the labour force, reduce the age dependency ratio and make a positive tax contribution. The migrants increase the demand for host country output and may utilise housing in less popular areas. Those with a high level of education make an even more significant contribution to economic output.

Sources: The Guardian*, 23 August 2023*
asia.nikkei.com, 3 March 2023
imf.org, March 2020

(a) Explain what is meant by absolute poverty. [2]

(b) Explain, with the aid of a diagram, how the migration of workers from a low-income country is likely to affect wages in the low-income country. [5]

(c) The article states: 'Total remittances received by those countries in 2022 was $650 billion.'

Analyse how this is likely to benefit the migrants' home economies. [6]

(d) Consider if the article contains sufficient information to support the view that migrants have only a beneficial economic impact on the host country. [7]

© UCLES 2025

stemup.co.uk

Section B

Answer **one** question.

EITHER

2 Market failure is to blame for climate change and the inefficient allocation of resources. The only solution is for governments to intervene to improve resource allocation.

Assess the extent to which you agree with this statement. [20]

OR

3 The degree of competition that a firm experiences is determined only by the barriers to entry into its market.

With the help of a diagram(s), evaluate this statement. [20]

Section C

Answer **one** question.

EITHER

4 Evaluate the effect of a rise in the exchange rate on the achievement of the macroeconomic aims of a country. [20]

OR

5 Economic growth can only occur when an economy is below full employment.

Evaluate this statement. [20]

© UCLES 2025

stemup.co.uk

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.

© UCLES 2025

stemup.co.uk

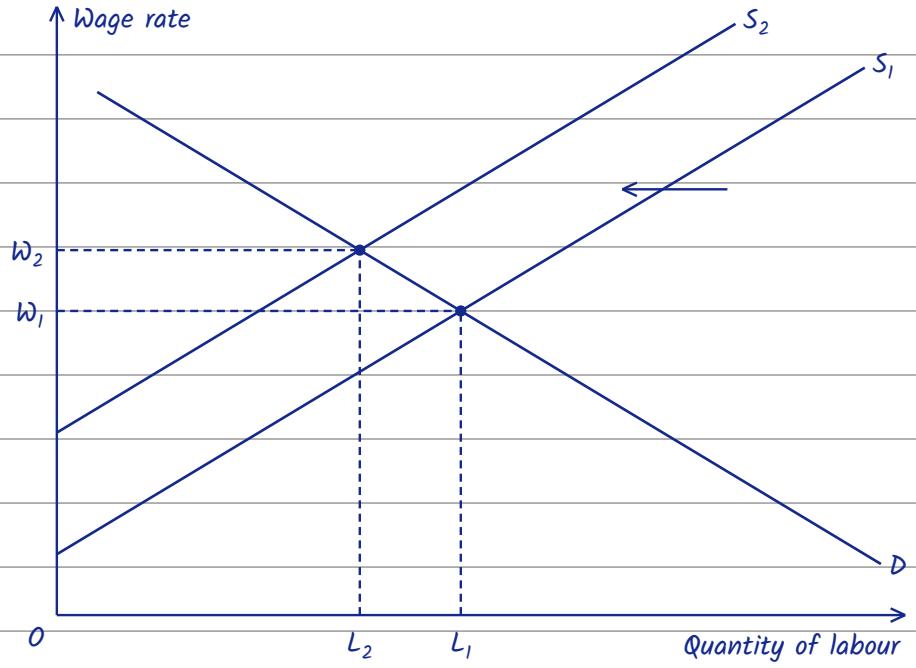
Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

Question number

Answers for paper 9708/41

1(a) Absolute poverty is when a person's income is below a fixed minimum level needed to meet basic needs for survival, such as food, clean water, shelter and clothing. Here the poverty line is the World Bank's fixed level of $2.15 per day (2022), so anyone living on less than this is in absolute poverty, unlike relative poverty, which is measured against the average income within a country.

1(b) Wages are determined by the demand for and supply of labour. Initially the labour market in the low-income country is in equilibrium where D = S1, at wage W1 and employment L1.



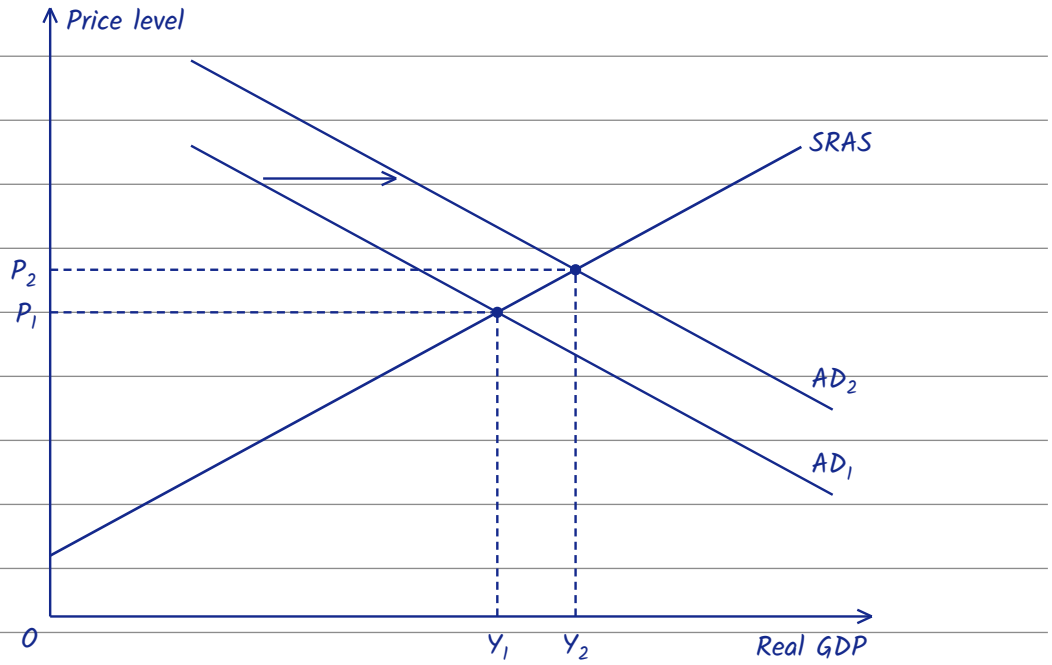
When workers migrate to richer countries, fewer workers are available at every wage, so the supply of labour shifts left from S1 to S2. At W1 there is now a shortage of labour, so employers compete for the remaining workers and the wage

Question number

rises to the new equilibrium W2, while employment falls from L1 to L2. This supports the article, which says migration can reduce unemployment and raise wages in home countries. The rise is largest in occupations that lose many workers, such as skilled nurses.

1(c) Remittances are money sent home by migrants working abroad. In the balance of payments they are recorded as secondary income (current transfers) in the current account, so they are an invisible earning for the home country. The $650 billion received in 2022 was more than the FDI and official aid these countries received, so it is a large inflow of foreign currency that improves the current account and helps pay for imports.

This inflow has the same effect as an increase in export earnings (X), raising the (X − M) element of aggregate demand, AD = C + I + G + (X − M). It also goes directly to families, who spend it on extra food, housing and schooling, so consumption rises. AD shifts right from AD1 to AD2 and, through the multiplier, real GDP rises from Y1 to Y2 with more employment.



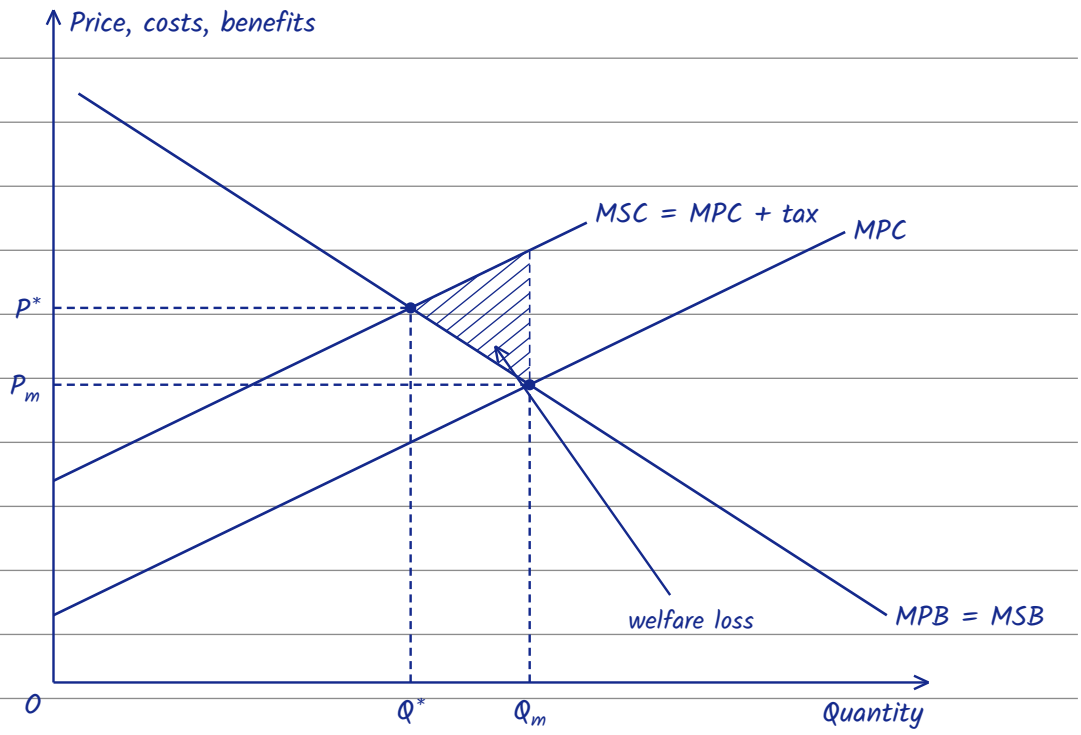
There are also long-term benefits. Remittances that are saved can be lent by

Question number	
	banks for investment, and higher school enrolment and fewer children in child labour raise human capital, increasing productivity and the productive capacity of the economy, so poverty falls in the long run as well.
1(d)	The article does give evidence of benefits. Where the host population is ageing, migrants lower the average age and increase the size of the labour force, reduce the age dependency ratio and make a positive tax contribution, which helps fund pensions and public services. They increase demand for host country output, raising AD and economic growth, they may use housing in less popular areas, and highly educated migrants raise productivity and output even more. However, the article mentions none of the possible costs. Migrants increase the demand for housing, so rents and house prices may rise, and they add pressure on health and education services, at least until their taxes pay for extra provision. A larger labour supply may hold down wages or cause short-term unemployment for low-skilled local workers in some sectors. There may be training and integration costs, migrants may cluster in some regions, widening regional disparities, cultural differences can cause tension, and remittances sent home are a leakage from the host economy. So the article is not sufficient: it presents only the benefits and gives no data on costs to the host country, so it cannot show that the impact is only beneficial. The net effect depends on the skills of the migrants, the state of the host labour market and how quickly housing and public services can expand.
	Section B
2	Market failure occurs when the free market fails to allocate resources efficiently, so that output is not at the allocatively efficient level where marginal social benefit equals marginal social cost (MSB = MSC). Climate change is often

Question number

described as the greatest market failure, because firms and consumers who burn fossil fuels do not pay for the damage caused by the carbon dioxide and other greenhouse gases they emit.

This is a negative externality: a cost of production or consumption borne by third parties who are not part of the transaction. A power station burning coal considers only its private costs (MPC), but society also suffers external costs such as rising temperatures, floods, crop failures and health damage, so MSC = MPC + external cost and MSC > MPC. In the diagram the market produces where MPB = MPC at Qm and price Pm, but the socially optimum output is Q^*, where MSB = MSC. Too much of the polluting good is produced and consumed, between Q^* and Qm each unit adds more to social cost than to social benefit, and the shaded triangle is the welfare loss. Resources are over-allocated to polluting goods and under-allocated to cleaner alternatives, so the statement that market failure causes inefficient allocation is correct. The atmosphere is also a common resource with no owner, so no one has an incentive to protect it.



Governments can intervene in several ways. An indirect tax equal to the external

Question number

cost, such as a carbon tax, shifts the supply curve up from MPC to MSC = MPC + tax, so the price rises to P^* and output falls to the optimum Q^*, internalising the externality and removing the welfare loss, as the diagram shows. Tradable pollution permits cap total emissions and let firms that can cut pollution cheaply sell permits to others, so emissions fall at the lowest cost. Regulations can set emission limits or ban the most polluting activities. Subsidies for renewable energy, electric vehicles or public transport, and direct provision of low-carbon infrastructure, encourage a switch to cleaner goods, while information campaigns and nudges change behaviour.

However, government intervention does not always improve resource allocation. It is very difficult to measure the external cost of carbon in money, so a tax may be set too high or too low, and output will not be at Q^*. If demand for fuel is price inelastic, a tax reduces pollution only a little and mainly raises prices, which hits low-income households hardest, so it is regressive. Subsidies have an opportunity cost, since the money could have funded health or education, and they may take a long time to change behaviour. Permits may be over-issued, regulations need costly monitoring and firms may lobby for exemptions. These are examples of government failure, where intervention leads to a worse or more costly allocation than before.

It is also not true that government intervention is the only solution. Climate change is a global problem: one government acting alone has little effect if other countries keep polluting, and firms may simply move production abroad, so international agreements are needed. Markets themselves can help: falling costs of solar and wind power, consumer demand for green products, and the Coase idea that clear property rights allow those affected to bargain with polluters. Firms may also cut emissions voluntarily to protect their reputation. However, these rarely happen at the scale required without a carbon price or regulation set by government.

In conclusion, I largely agree that market failure, especially negative externalities

Question number

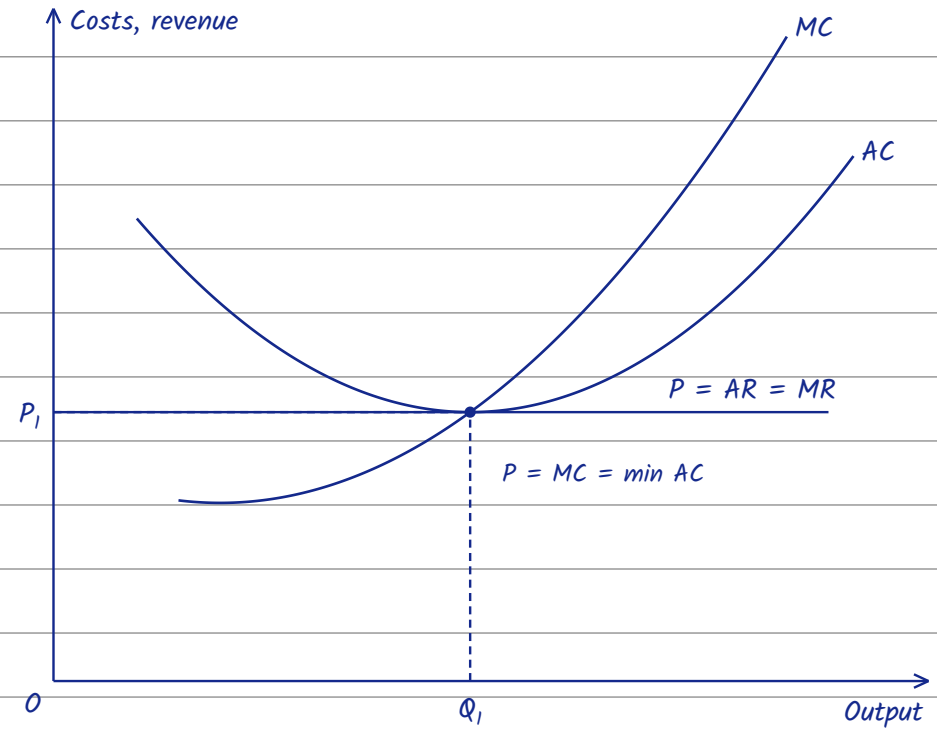
and the lack of ownership of the atmosphere, causes climate change and the misallocation of resources. Government intervention is necessary, but it is not the only solution and it can fail. The best outcome is likely to come from a combination of well-designed market-based policies such as carbon taxes and permits, international cooperation, and technological change driven by the market.

3

The degree of competition is how strongly firms in a market compete on price, quality and innovation. A barrier to entry is anything that makes it difficult or costly for a new firm to enter a market and compete with existing firms. Examples include economies of scale, which give large firms a cost advantage; high sunk costs, such as advertising or specialist capital; legal barriers such as patents and licences; control of raw materials or distribution outlets; brand loyalty; and strategic barriers such as limit pricing.

Barriers to entry are a key difference between market structures. In perfect competition there are no barriers to entry or exit, many small firms selling a homogeneous product and perfect knowledge. Each firm is a price taker. If firms make supernormal profit in the short run, new firms enter, market supply rises and the price falls until, in the long run, each firm makes only normal profit where P = AR = MR = MC = minimum AC, as in the diagram. Competition is intense and the outcome is both allocatively and productively efficient.

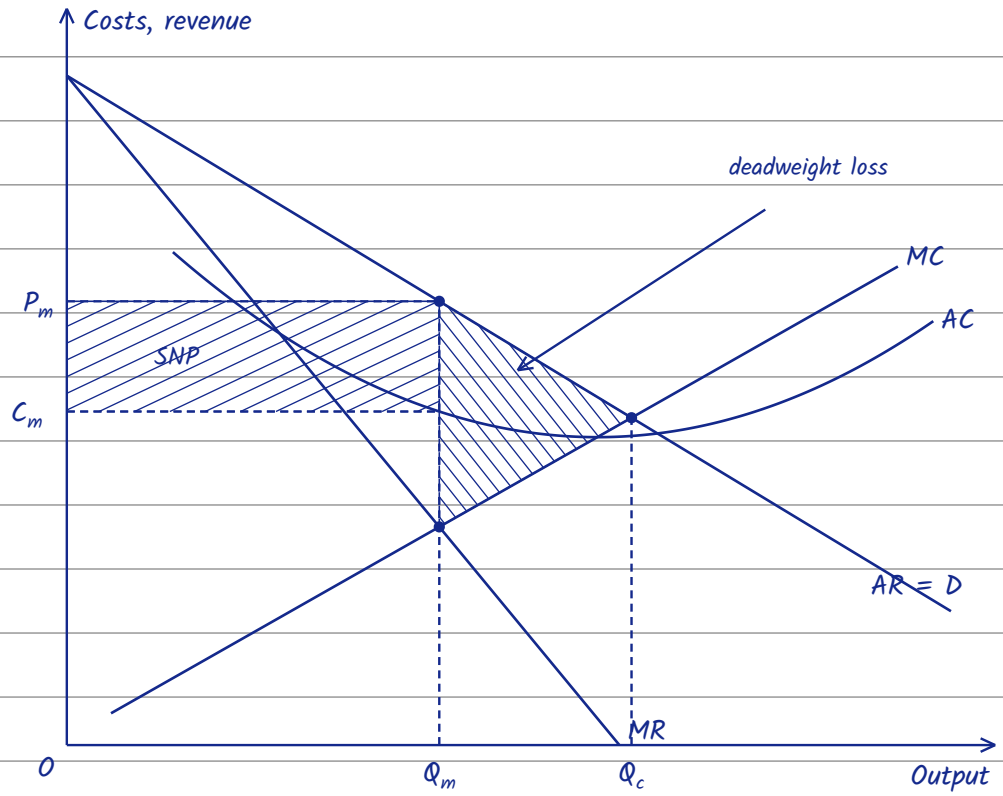
Question number



Monopolistic competition also has low barriers, so supernormal profits are competed away in the long run, although firms sell differentiated products and have some control over price.

In monopoly there is a single seller and very high barriers to entry. The firm faces the downward-sloping market demand curve, so it is a price maker and maximises profit where MR = MC at Qm and price Pm. Because barriers stop new firms entering, the supernormal profit (Pm – Cm) × Qm can be kept in the long run. Price is above MC and output is below the competitive level Qc, so there is little competition and a deadweight loss. Oligopoly, with a few large firms and high barriers, lies in between. So the diagrams support the statement: the higher the barriers, the fewer the firms and the weaker the competition.

Question number



However, barriers to entry are not the only factor. First, the number and size of existing firms matters: an oligopoly with high barriers can still be highly competitive. Supermarkets or mobile phone networks compete fiercely through price wars, advertising, loyalty schemes and product development, because they are interdependent. Equally, firms in a market with low barriers may collude or form a cartel, reducing competition. Second, the degree of product differentiation and consumer knowledge matter: strong brands reduce price competition even when entry is possible.

Third, contestability matters. Even a monopoly may behave competitively if the market is contestable, with low sunk costs, because the threat of hit-and-run entry forces it to keep prices close to average cost. Fourth, competition can come from substitutes, imports and new technology: a national monopoly may face strong international competition, and online firms have challenged established high street retailers. Finally, government regulation and competition policy, such as price caps or blocking mergers, can make firms behave as if markets were more

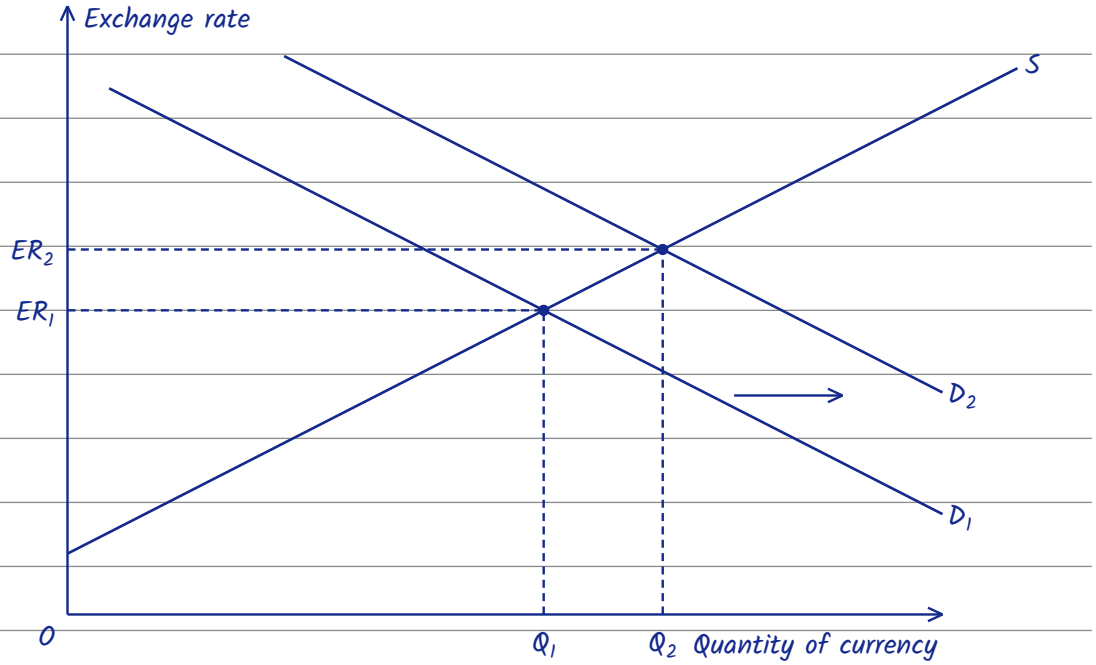
Question number

competitive, whatever the barriers.

In conclusion, barriers to entry are a very important determinant of the degree of competition, because they decide whether supernormal profits can be competed away in the long run. But the statement is too strong: the number of firms, their behaviour and interdependence, product differentiation, contestability, international competition and regulation also determine how competitive a market is, so barriers to entry are not the only factor.

Section C

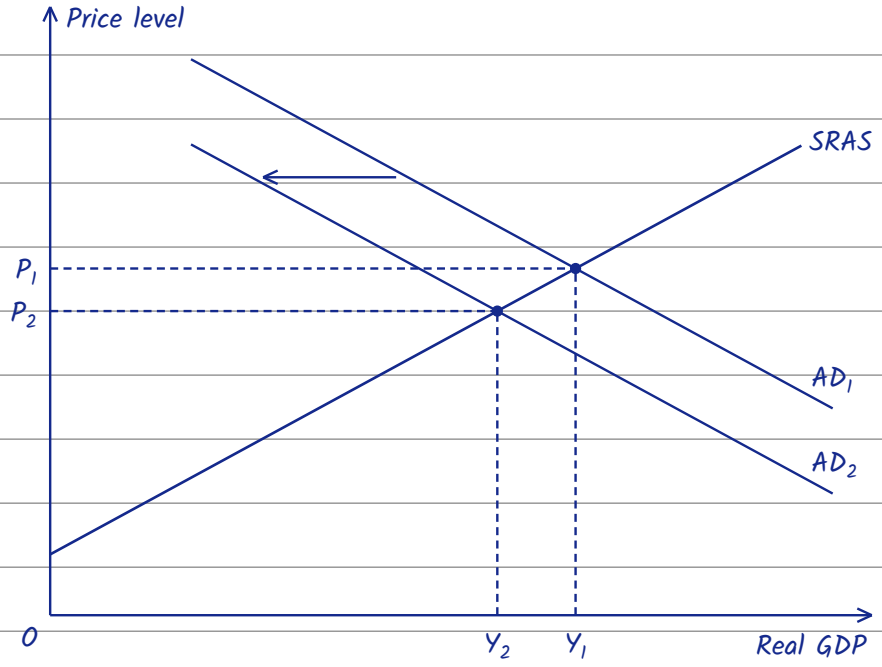
4 The exchange rate is the price of one currency in terms of another. A rise in a floating exchange rate is an appreciation. It may be caused by higher interest rates attracting hot money, rising demand for exports, or inflows of FDI, which increase the demand for the currency from D1 to D2, raising the rate from ER1 to ER2. The main macroeconomic aims are economic growth, low unemployment, low and stable inflation and a stable balance of payments.



An appreciation makes exports more expensive in foreign currency and imports

Question number

cheaper in domestic currency. If demand for exports and imports is price elastic, export volumes fall and import volumes rise, so (X − M) falls and the current account worsens. Since AD = C + I + G + (X − M), AD shifts left from AD1 to AD2. Exports are an injection and imports a withdrawal, so the multiplier causes a larger fall in national income: real GDP falls from Y1 to Y2, so actual economic growth slows. Firms producing exports and import substitutes cut output, so cyclical unemployment rises.



The effect on inflation is beneficial. The fall in AD reduces demand-pull pressure, with the price level falling from P1 to P2. Cheaper imported food, fuel and raw materials directly reduce the price of consumer goods and the costs of firms, reducing cost-push inflation, and domestic firms must keep their prices low to compete with cheaper imports, so they have an incentive to raise efficiency. So a rise in the exchange rate helps the inflation aim but conflicts with the growth, employment and balance of payments aims.

However, the size of these effects depends on several factors. The Marshall–Lerner condition says the current account worsens only if the sum of the price elasticities of demand for exports and imports is greater than one. If a country exports price

Question number

inelastic goods such as oil or agricultural commodities, export revenue may fall very little, and in the short run contracts mean volumes take time to change. If exports use many imported components, cheaper inputs offset much of the price rise. The impact also depends on the proportion of GDP made up of trade: for a very open economy such as Singapore the effect is large, but for the USA, where exports are a small share of GDP, it is small.

The cause of the rise also matters. If it is caused by strong demand for high-quality exports or large FDI inflows, the economy may already be growing fast, and MNC investment raises output, jobs and productive capacity. If the currency is a reserve currency, like the US dollar, demand for it is high whatever the trade balance. The state of the economy matters too: if the economy is overheating near full employment, the fall in AD and lower inflation are desirable, but in a recession the loss of output and jobs would be harmful. The size of the multiplier, which depends on the marginal propensity to import, decides how far income falls.

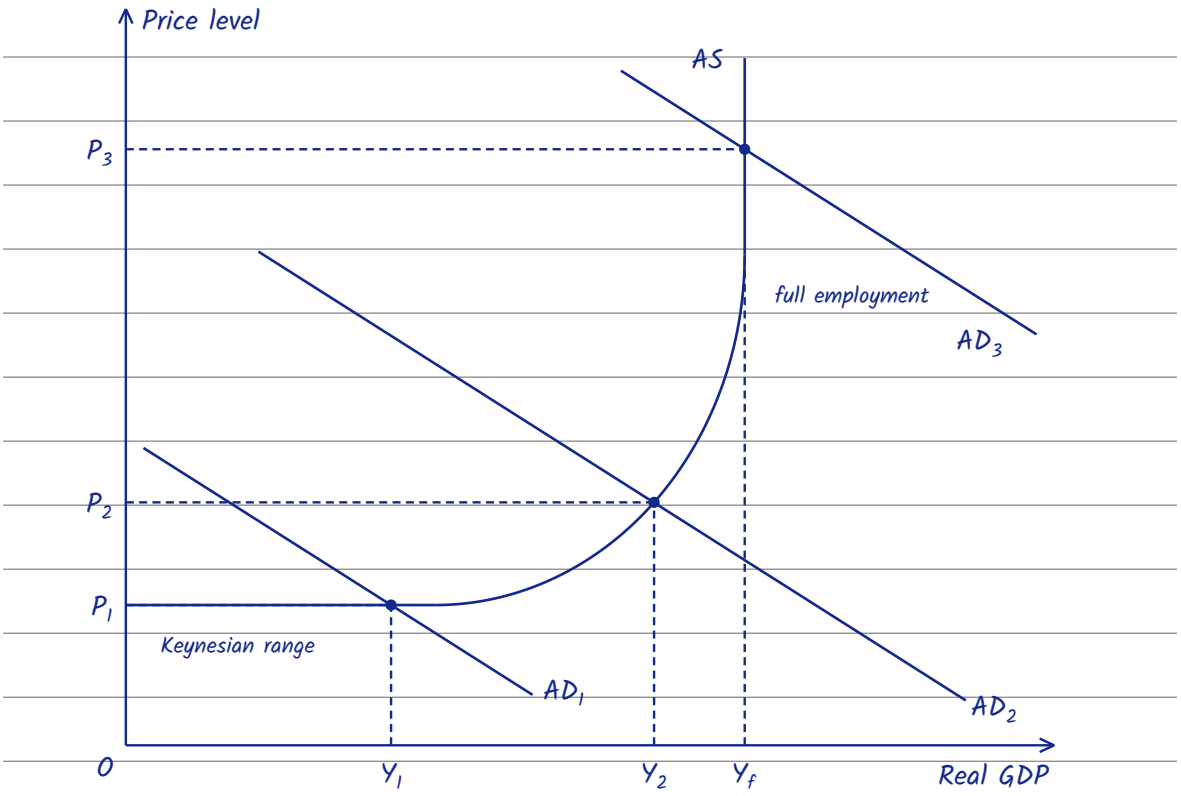
In conclusion, a rise in the exchange rate is likely to help achieve low inflation but makes it harder to achieve economic growth, low unemployment and a current account surplus. The overall effect depends on the price elasticities of exports and imports, why the currency rose, how open the economy is and its position in the economic cycle, and the effects are larger in the long run than in the short run.

5

Economic growth is an increase in real GDP over time. Actual growth is an increase in the output actually produced, using spare capacity; potential growth is an increase in the productive capacity of the economy, shown by an outward shift of the PPF or a rightward shift of LRAS. Full employment is when all those willing and able to work at the going wage have jobs, leaving only the natural rate of (frictional and structural) unemployment, and the economy is producing on its PPF.

Question number

Below full employment there is spare capacity, unemployed labour and idle capital. In the Keynesian diagram, an increase in AD from AD1 to AD2, for example from higher consumption, investment, government spending or net exports, raises real GDP from Y1 to Y2 with only a small rise in the price level, because firms can increase output by employing idle resources. The multiplier makes the rise in income larger than the initial injection. On a PPF this is a movement from a point inside the curve towards it. This supports the statement: actual growth is easiest when the economy is below full employment.

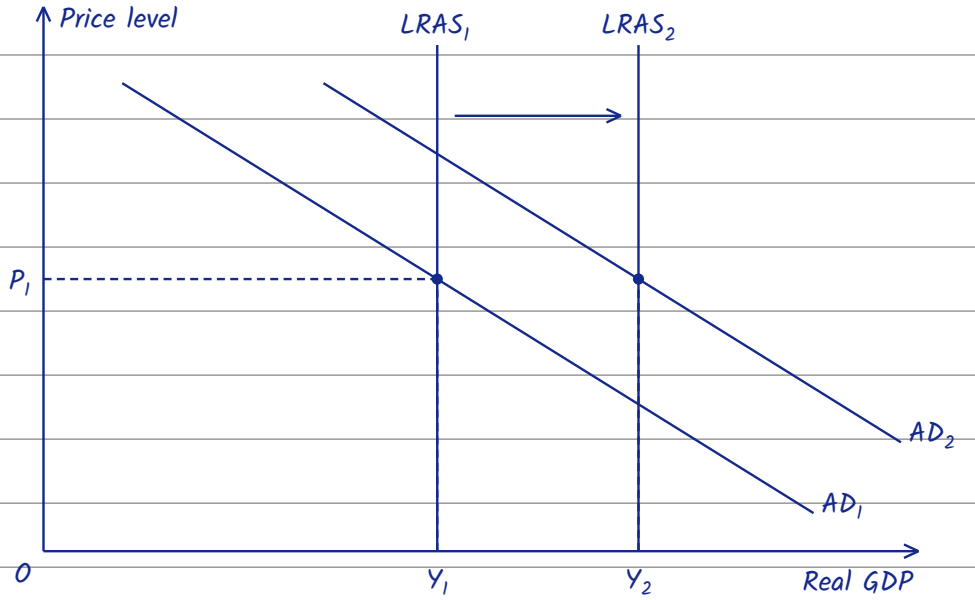


At full employment, at Yf, AS is vertical, so a further increase in AD from AD2 to AD3 only raises the price level to P3 and does not increase real output: it causes demand-pull inflation. So AD-led growth is not possible at full employment, and near full employment bottlenecks and skill shortages mean growth comes with rising inflation.

However, growth can still occur at full employment through potential growth. If the quantity or quality of factors of production increases, LRAS shifts right from

Question number

LRAS1 to LRAS2 and real GDP rises from Y1 to Y2 with no rise in the price level. This can come from investment in new capital, new technology, education and training that raise labour productivity, an increase in the labour force through immigration or higher participation, and supply-side policies such as deregulation and lower taxes. Productivity growth allows more output from the same fully employed workforce, so the statement is wrong to say growth can only occur below full employment.



In practice, for sustained growth AD and AS must both increase. Investment is part of AD and also adds to the capital stock, so it raises both actual and potential output. Even at full employment, consumption or net exports can rise if productive capacity grows at the same time, without causing unemployment to fall below its natural rate.

The answer also depends on the time period. In a recession, the quickest way to grow is by increasing AD to use spare capacity. In the long run, however, growth depends on supply-side improvements, because an economy cannot keep growing faster than its productive capacity. Supply-side measures such as education take many years to have an effect and have an opportunity cost. There is also a question of whether reducing unemployment is the main economic problem, since

Question number

stimulating AD to reach full employment may worsen inflation or the balance of payments.

In conclusion, the statement is only partly correct. Actual growth through higher AD can only occur when the economy is below full employment, but potential growth through increased productive capacity can occur at full employment, and it is the main source of long-run growth.

Cambridge Assessment International Education

Cambridge International AS & A Level

ECONOMICS **9708/42**

Paper 4 A Level Data Response and Essays **October/November 2025**

2 hours

9981664316

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.

DC (EV) 351816/2
© UCLES 2025

[Turn over

stemup.co.uk

Section A

Answer all parts of Question 1.

1 **Resources in Brazil**

Between 2000 and 2020, Brazilian GDP, measured in US dollars ($), rose from $1.19 trillion to $1.89 trillion at constant prices (2015). In the same period GDP per head rose from $6745 to $8204 at constant prices (2015).

The strength of the Brazilian economy lies in the variety and quantity of its natural resources. For example, Brazil is one of the world's largest exporters of agricultural commodities, mainly soya and beef. There are also significant exports of minerals. Brazil is the second largest iron ore producer in the world and extracts 3.4% of the world's crude oil.

World agricultural markets are dominated by four large commodity traders that buy and sell products such as grain and soya. They have grown through both horizontal integration and vertical integration. These traders own many large farms, they process farm produce and transport it to trade on international markets. In addition to buying and selling, the traders provide seed and fertiliser to farmers and supply storage for their products. They use agricultural by-products to produce items like biofuel. These traders also provide financial services to these markets.

Commodity traders are very important to the development of complex global food markets. Food prices, access to scarce resources such as land and water, climate change and food security are all affected by the activities of traders. In Brazil, the output of 15 000 farmers is purchased by a single trader.

In Brazil the development of agriculture, mining and oil extraction all contribute to environmental degradation. Both agriculture and mining have been accompanied by deforestation of the Amazon rainforest. Access roads to mining areas also lead to deforestation. Waste water from mining activity is frequently stored in reservoirs behind dams. On two occasions in the last 10 years these dams failed to hold back the water. This led to widespread flooding, the discharge of pollutants such as mercury into rivers, and deaths.

Sources: The Guardian*, 23 August 2022*
Cereal Secrets, Oxfam Research Report, August 2012
oec.world/en/profile, August 2023

(a) Explain the significance of measuring GDP at constant prices. [3]

(b) Explain **one** possible benefit of horizontal integration and **one** possible benefit of vertical integration. [4]

(c) Describe how the market structure in which individual farmers operate is likely to differ from the market structure in which the commodity traders operate. [6]

(d) Use the article to evaluate the impact of the development of the agricultural and mining industries on the standard of living in Brazil. [7]

© UCLES 2025

stemup.co.uk

Section B

Answer **one** question.

EITHER

2 Traffic congestion is a cause of allocative inefficiency.

Evaluate, with the help of diagram(s) **two** policies that a government may introduce to reduce the problem of allocative inefficiency caused by traffic congestion. [20]

OR

3 The average wage of chief executives in large companies in a country is over 100 times greater than the average wage of their employees.

Assess how economic theory can account for this variation in average wages. [20]

Section C

Answer **one** question.

EITHER

4 Evaluate the effect of a fall in the exchange rate on the achievement of the macroeconomic aims of a country. [20]

OR

5 Evaluate whether the presence of multinational companies (MNCs) in low-income countries is always beneficial. [20]

© UCLES 2025

stemup.co.uk

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.

© UCLES 2025

stemup.co.uk

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 9708/42

1(a) GDP is the total value of output produced within a country in a year. Measuring it at constant prices (here 2015 prices) removes the effect of changes in the price level, so the figure shows the real change in output. This means the rise from $1.19 trillion to $1.89 trillion is a genuine increase in the volume of goods and services, and the GDP of different years can be compared fairly.

1(b) Horizontal integration is when two firms at the same stage of production in the same industry join, for example two commodity traders. One benefit is economies of scale: the larger firm can buy, store and transport grain in bulk, lowering average costs, and it gains market share.

Vertical integration is when a firm joins with a firm at a different stage of production of the same product, for example a trader that owns farms and also processes and transports produce. One benefit is control of supply: the trader secures reliable, good-quality inputs from its own farms and avoids paying other firms' profit margins, which reduces its costs.

1(c) Individual farmers operate in monopolistic competition. There are many sellers, for example 15 000 farmers sell to one trader in Brazil, each with a very small share of the market. The products such as soya and beef are similar, with only slight differences in quality or variety, and there are few barriers to entry, so farmers can enter and leave the market easily. Each farmer therefore has very little control over price.

The commodity traders operate in an oligopoly. The world market is dominated by

Question number

only four large traders, so there are a few sellers with high concentration and the firms are interdependent. There are high barriers to entry, such as the huge capital needed for farms, processing plants, storage and transport, and the economies of scale gained from integration. The traders are price makers, setting the prices they pay farmers and charge buyers, and they differentiate their services, for example by also supplying seed, fertiliser, storage and financial services.

1(d) The standard of living is the level of welfare of people in a country. It has a monetary side, such as real income per head, and a non-monetary side, such as health, education, housing and the quality of the environment.

Some data suggest the standard of living improved. Real GDP rose by $0.7 trillion, from $1.19 trillion to $1.89 trillion (59%) between 2000 and 2020, and real GDP per head rose by $1459, from $6745 to $8204 (22%), so on average people had more goods and services. Brazil is one of the largest exporters of soya and beef, the second largest iron ore producer and extracts 3.4% of the world's oil, which earns foreign currency and creates jobs and income.

Other data suggest the standard of living fell for many people. Agriculture and mining caused deforestation of the Amazon rainforest, mining polluted rivers with mercury, and two dam failures led to flooding and deaths, so environmental quality and health worsened. The growth may also have been unevenly shared, since one trader buys from 15 000 farmers and may keep much of the income.

However, the article gives no data on non-monetary indicators such as education, health, life expectancy or housing, or on how income is distributed. So the evidence is mixed: incomes rose, but at a large environmental cost, and a wider range of data, such as HDI, would be needed to make a full judgement.

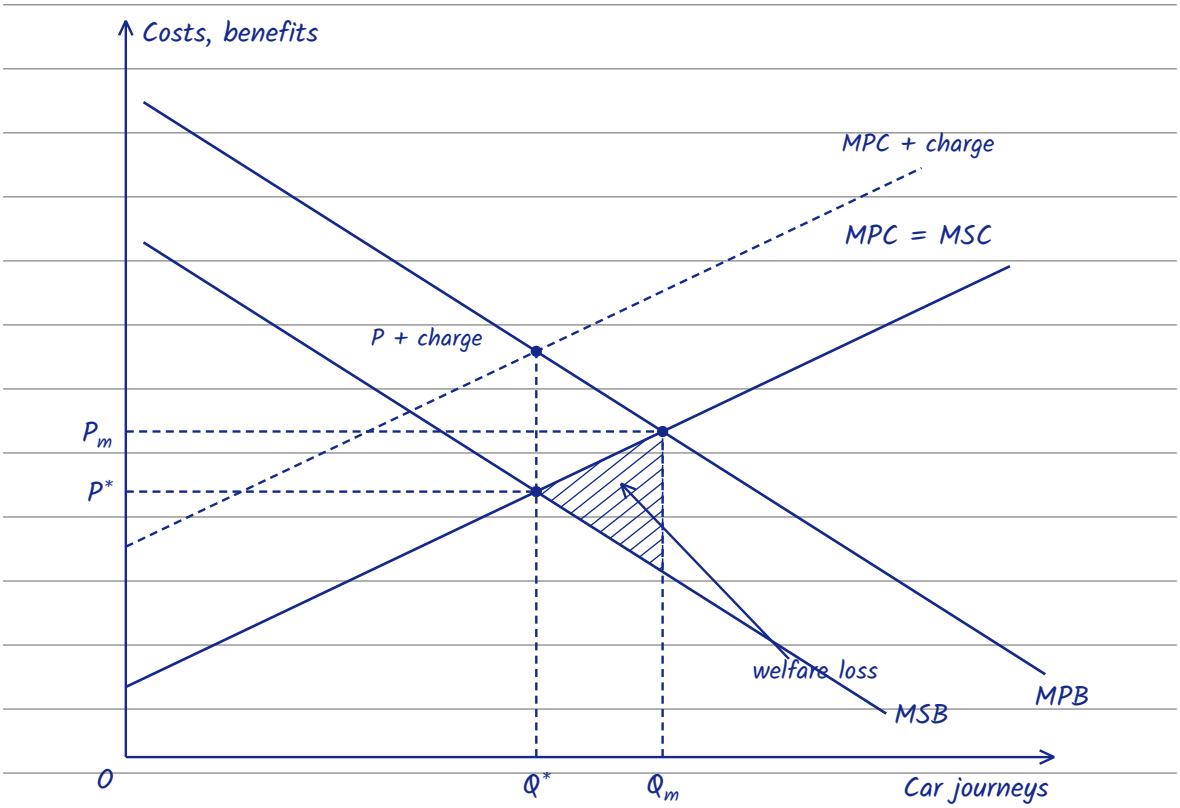
Question number

Section B

2 Allocative efficiency is achieved when resources are allocated to produce the combination of goods and services that maximises society's welfare, where marginal social benefit equals marginal social cost (MSB = MSC), or where P = MC. Traffic congestion causes allocative inefficiency because it is a negative consumption externality. When a driver makes a journey at a busy time, they consider only their own private costs and benefits, but they slow down all other road users, increasing their journey times and fuel costs, and add to air pollution and noise. These external costs are borne by third parties.

In the diagram, the external cost means MSB is below MPB. Drivers make journeys up to Qm, where MPB = MPC, but the socially optimum number of journeys is Q^*, where MSB = MSC. Too many journeys are made, and between Q^* and Qm the social cost of each journey exceeds its social benefit, giving the shaded welfare loss. Roads are also often free at the point of use, so there is no price to ration them at peak times.

Question number



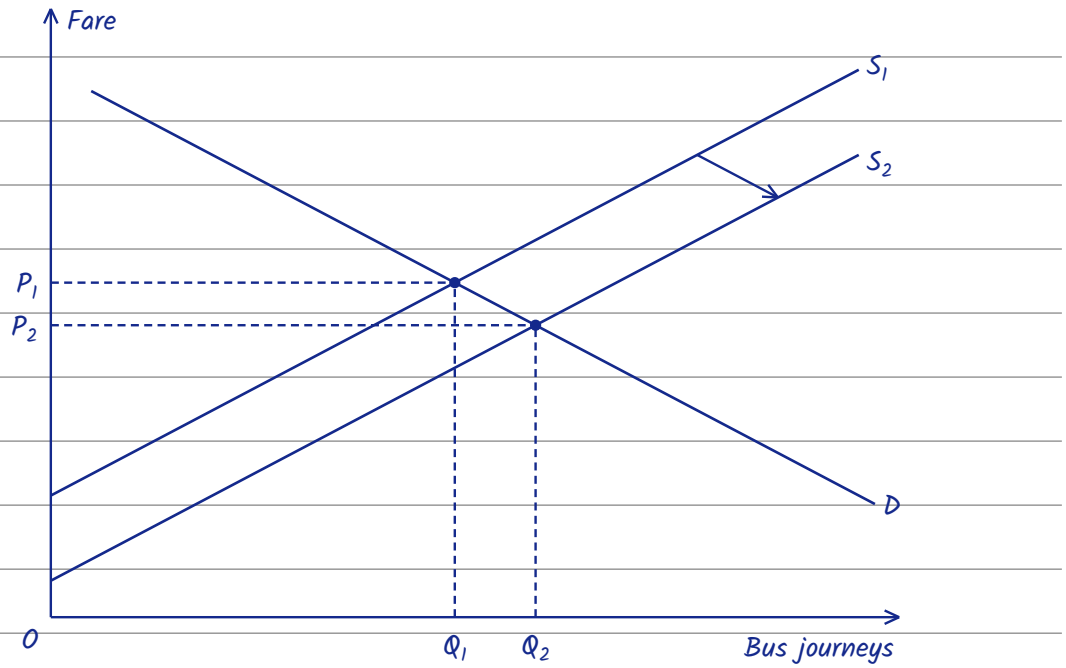
The first policy is a congestion charge, a form of road pricing or indirect tax on using roads at busy times, as in London or Singapore. If the charge equals the external cost at the optimum, the private cost of a journey rises to MPC + charge, so drivers face the full social cost and the number of journeys falls from Qm to Q^*. The externality is internalised and the welfare loss removed. The charge also raises revenue that can be spent on public transport, and electronic systems can vary the charge by time and place.

However, it is very difficult to measure the external cost of congestion in money terms, so the charge may be set at the wrong level. The demand for car journeys is often price inelastic, especially for people who commute with no good alternative, so a charge may reduce congestion only slightly. A flat charge is regressive, hitting low-income drivers hardest, and it may divert traffic to uncharged roads nearby. The cameras and enforcement are costly, and the policy may be politically unpopular.

The second policy is to subsidise public transport or provide it directly, for example

Question number

buses, trams or a mass rapid transit system. In the second diagram, a subsidy shifts the supply of bus journeys from S1 to S2, so the fare falls from P1 to P2 and bus journeys rise from Q1 to Q2. Since buses and cars are substitutes, the demand for car journeys falls, MPB shifts left and the number of car journeys moves towards the optimum. One bus carries many people, so congestion and pollution per passenger fall.



Again there are problems. Subsidies have an opportunity cost, since the money could be spent on health or education, and it is hard to know the right size of subsidy. Demand for public transport may be price inelastic or the cross elasticity with car travel may be low: many people prefer the comfort, flexibility and status of a car, so a lower fare may attract few drivers. Large projects such as a new metro take years to build, and public sector provision may be less efficient than private provision. Advertising the benefits of public transport, or nudges, are cheaper but their effect is uncertain.

In conclusion, both policies can reduce the allocative inefficiency caused by congestion, but neither is perfect. A congestion charge tackles the cause directly and raises revenue, but works only if there are good alternatives. Subsidised public

Question number

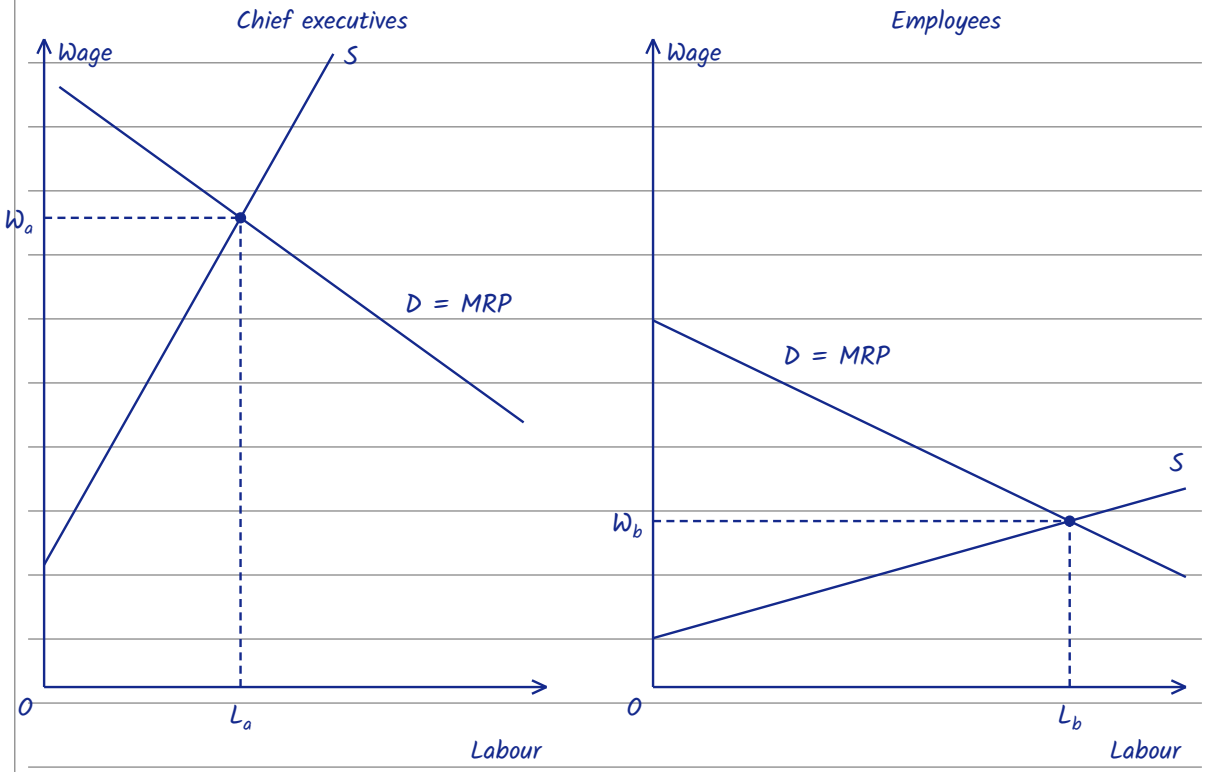
transport provides those alternatives but is costly and slow. The most effective approach is to combine them, using the revenue from the charge to fund better public transport.

3

In a free labour market, the wage is determined by the demand for and supply of labour. The demand for labour is a derived demand, determined by its marginal revenue product: MRP = MPP × MR, where MPP is the extra output from employing one more worker, and in a competitive product market MR is the price of the good. A profit-maximising firm employs workers up to the point where MRP equals the wage. The supply of labour to an occupation depends on the skills, qualifications, training and ability needed, the non-monetary benefits of the job and the wages in other jobs.

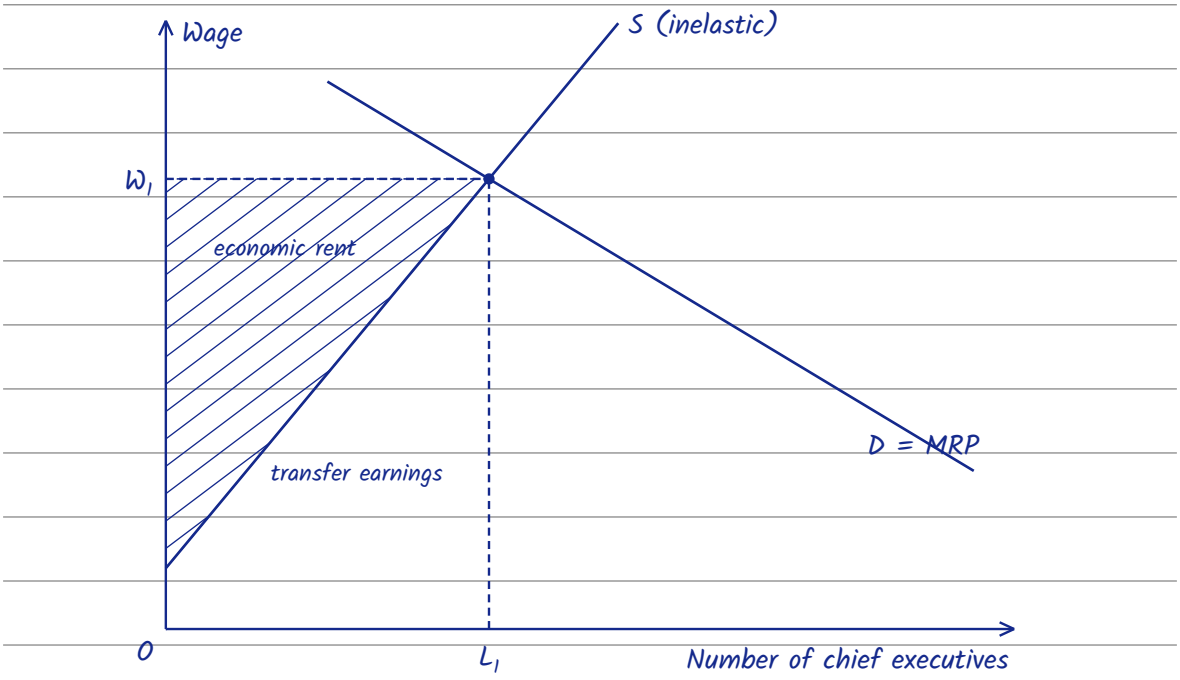
Marginal productivity theory can explain why chief executives earn over 100 times more than their employees. The decisions of a chief executive of a large company affect the whole firm: a good strategy, merger or new product can add millions of dollars to revenue and profit, so the MRP of a chief executive is extremely high and demand is high. The supply of people with the rare talent, experience and track record to run a large company is very small and very inelastic. In the left diagram, high demand and low, inelastic supply give a very high wage Wa. For general employees, each worker adds a relatively small amount to output, so MRP is lower, and many people have the skills to do the job, so supply is large and elastic. The wage Wb is therefore much lower, explaining the large variation.

Question number



The concept of economic rent helps further. Transfer earnings are the minimum payment needed to keep a factor in its current use, and economic rent is any payment above this. Because the supply of chief executives is inelastic, most of their pay WI is economic rent, shown by the area above the supply curve. Rising demand raises their pay a lot without increasing supply. Chief executives may also be in a global labour market, where companies compete internationally for the best managers, raising pay further.

Question number



However, marginal productivity theory has limits. It is very difficult to measure the MPP of a chief executive, whose output is not a physical product and whose contribution cannot be separated from the work of thousands of employees and market conditions. Pay is often set by remuneration committees made up of other directors and executives in similar positions, who compare pay with other firms and push it up, so pay may reflect bargaining power rather than productivity, a principal-agent problem. Some chief executives receive large bonuses even when the company performs poorly.

On the other side, employees' wages may be below their MRP. If the firm is a monopsony employer, it pays a wage below the competitive level, and if workers are not in a trade union they have little bargaining power. Discrimination may lower the wages of some groups, and government policies such as a national minimum wage and taxation also affect the gap. The theory assumes perfectly competitive labour markets with perfect information and mobility, which is rarely the case.

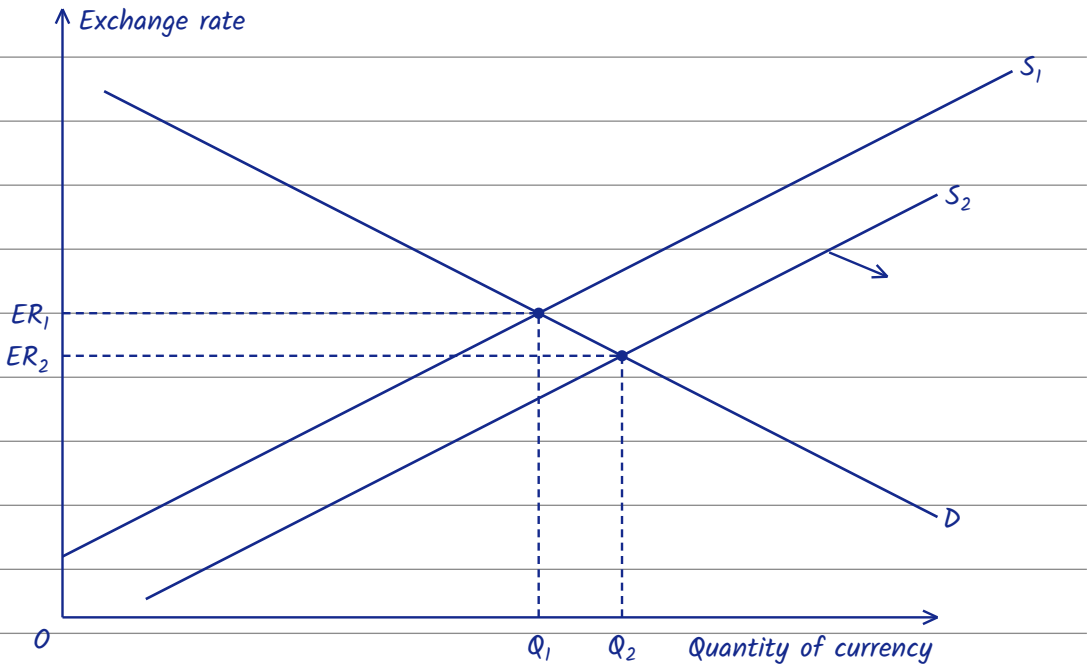
In conclusion, economic theory, especially MRP, the elasticity of labour supply and economic rent, goes a long way to explain why chief executives earn much more

Question number

than ordinary employees. However, it cannot fully account for a gap of over 100 times, since institutional factors such as how executive pay is set, monopsony power and weak bargaining power of employees also play a large part.

Section C

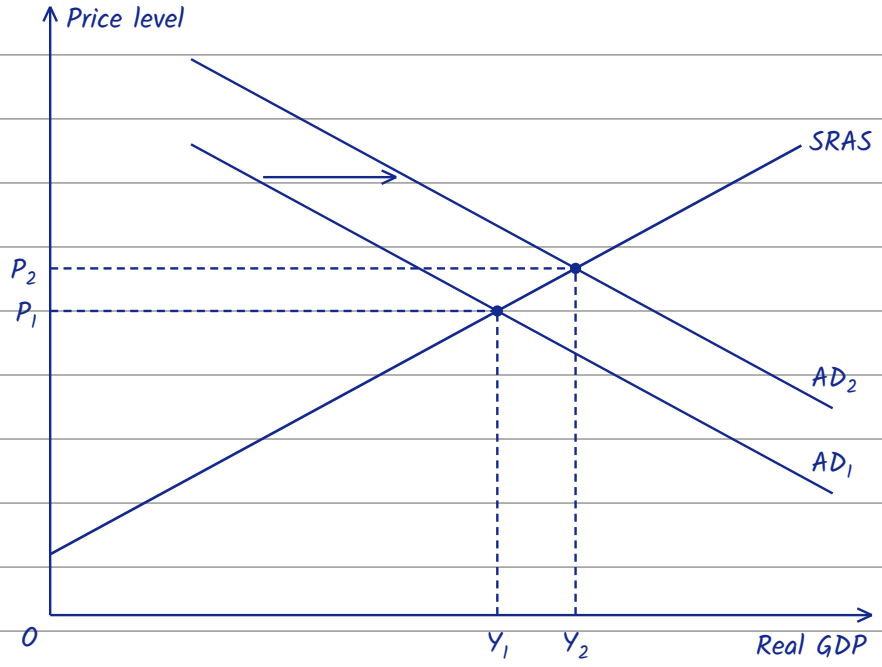
4 A fall in a floating exchange rate is a depreciation, while a deliberate fall in a fixed rate is a devaluation. It occurs when the supply of the currency rises, for example as residents buy more imports or invest abroad, shifting S1 to S2, or when demand falls, so the exchange rate falls from ER1 to ER2. The main macroeconomic aims are economic growth, low unemployment, low and stable inflation and a stable balance of payments.



A depreciation makes exports cheaper in foreign currency and imports more expensive in domestic currency. If demand for exports and imports is price elastic, export volumes rise and import volumes fall, so (X – M) rises and the current account improves. Since AD = C + I + G + (X – M), AD shifts right from AD1 to AD2. Exports are an injection and imports a withdrawal, so through the multiplier

Question number

real GDP rises by more than the initial change, from YI to Y2, giving actual economic growth. Exporting firms and firms producing import substitutes take on more workers, so unemployment falls.



However, the effect on inflation is likely to be negative. The higher AD causes demand-pull inflation, with the price level rising from PI to P2, especially near full employment. Imported food, fuel and raw materials become more expensive, raising firms' costs and causing cost-push inflation, which may lead workers to demand higher wages. Exporters also face less pressure to cut costs. So a depreciation helps growth, employment and the balance of payments but conflicts with low inflation, a trade-off shown by the Phillips curve.

The size of these effects depends on several factors. By the Marshall–Lerner condition the current account improves only if the sum of the price elasticities of demand for exports and imports is greater than one. In the short run demand is inelastic because of contracts and habits, so the current account first worsens before improving, the J-curve effect. Many low-income countries export agricultural commodities whose supply is price inelastic, so they cannot quickly increase output to meet higher demand. If the economy is already near full employment there is

Question number

little spare capacity, so the main result is inflation rather than growth.

Other effects matter. If exports use many imported components, their cost rises, offsetting the price advantage. A country with large debts in foreign currencies, such as US dollars, finds them more expensive to service, while debts in domestic currency are unaffected. A lower currency makes the country's assets cheaper, which may attract FDI by MNCs, increasing output, jobs and growth, but it may also cause capital flight if investors expect further falls. The impact depends on how large a share of GDP trade makes up, and other countries may retaliate with their own depreciations. A competitive advantage based only on price may also be short-lived if inflation rises.

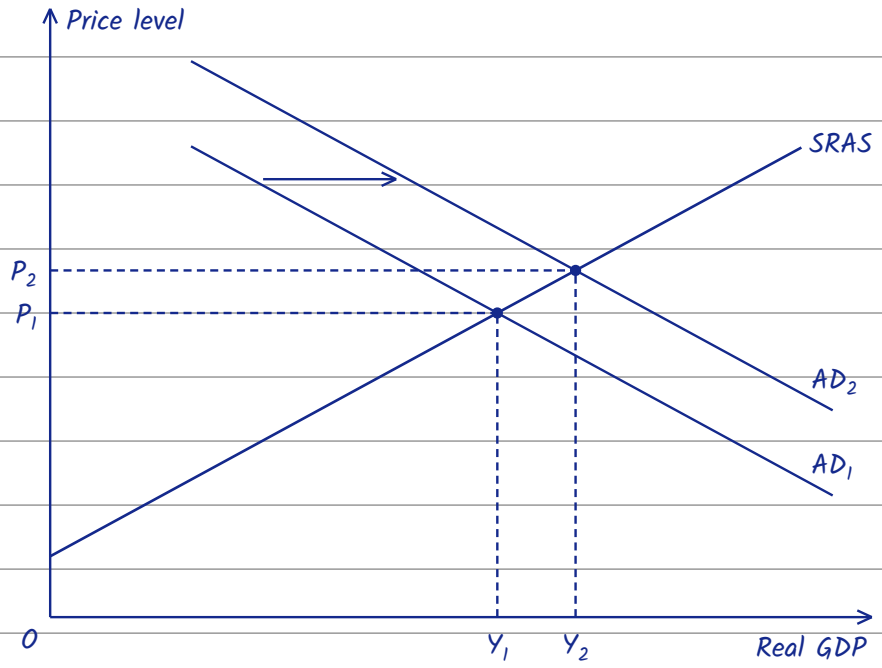
In conclusion, a fall in the exchange rate is likely to help achieve economic growth, lower unemployment and an improved current account, especially when there is spare capacity and demand is price elastic, but at the cost of higher inflation. Its overall effect depends on elasticities, the time period, the state of the economy and the openness of the country, and in the long run lasting competitiveness depends on productivity, not the exchange rate.

5 A multinational company (MNC) is a firm that has its headquarters in one country and owns or controls production in other countries. A low-income country (LIC) is one with low GNI per head, often with a large share of employment in agriculture, low productivity and low levels of education and health. MNCs enter LICs through foreign direct investment (FDI), attracted by cheap labour, raw materials and new markets.

MNCs can bring many benefits. The FDI is an injection into the circular flow: building factories and mines raises investment, and the wages paid raise consumption, so AD shifts right and through the multiplier real GDP rises, giving actual growth and reducing unemployment. MNCs often pay higher wages than local firms and pay taxes, which governments can spend on health and education.

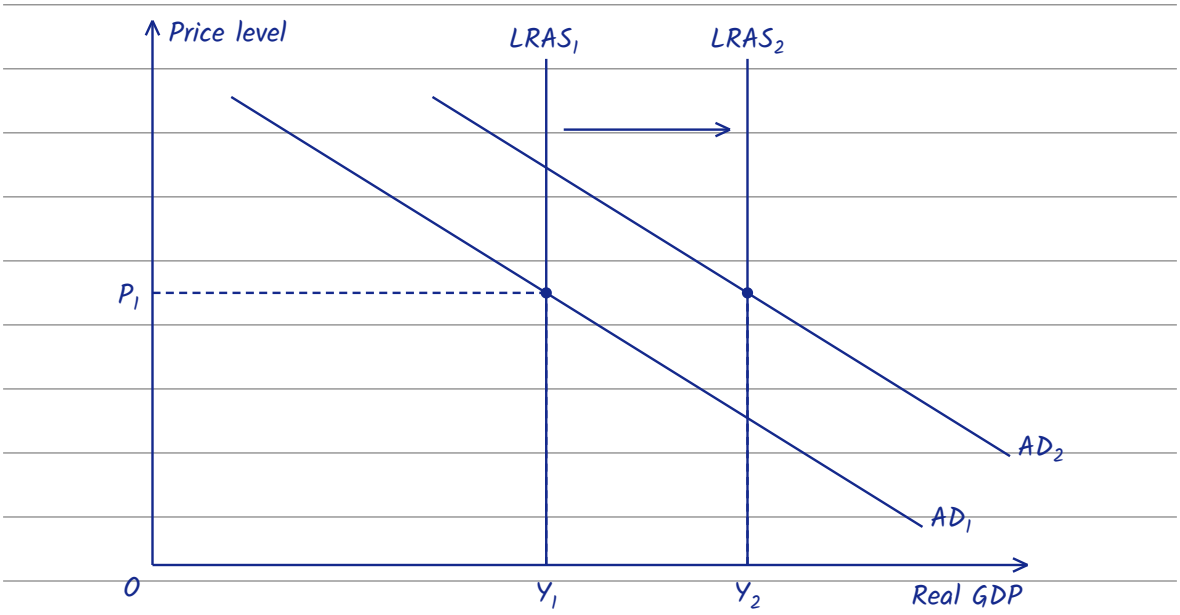
Question number

In the balance of payments, FDI is an inflow on the financial account, increasing the demand for the currency, and if the MNC exports its output, the current account also improves, bringing foreign currency needed to pay for imports of capital goods.



MNCs can also increase potential growth. They bring new capital, technology and management skills, train workers and develop raw materials, raising the quantity and quality of factors of production. They often build infrastructure such as roads, railways, ports and sometimes schools and clinics. These shift LRAS to the right from LRAS1 to LRAS2, or move the PPF outwards, so the country can produce more in the long run. Local suppliers can learn from the MNC (technology spillovers), and consumers gain a wider range of products, so the standard of living rises.

Question number



However, MNCs are not always beneficial. Large MNCs with low costs may drive local firms out of business, causing structural unemployment, and if they use capital-intensive production methods they create few jobs. Much of the profit is sent back to the home country, which is an outflow in the primary income account, so GNI rises by less than GDP. MNCs may pay very low wages, use poor working conditions and transfer pricing to avoid tax, and may only employ local people in unskilled jobs, with managers brought from abroad.

There may also be negative externalities, such as pollution, deforestation and the depletion of non-renewable resources, which reduce the non-material standard of living. MNCs may bribe local officials to gain permission for projects, increasing corruption, and changes in work and cultural practices can damage local cultures. If an MNC exports large amounts of raw materials, the exchange rate may rise, making other exports uncompetitive, the so-called Dutch disease, again causing structural unemployment. MNCs are also footloose and may leave quickly if costs rise elsewhere.

Whether MNCs are beneficial therefore depends on the type of activity, for example manufacturing creates more jobs and skills than mining; on the terms the government negotiates, such as tax rates and requirements to train local workers

Question number

or use local suppliers; and on the quality of regulation and governance in the LIC.

In conclusion, the presence of MNCs can bring significant benefits for growth, jobs and development, but it is not always beneficial: without effective regulation the costs to local firms, workers and the environment can outweigh the gains.

Cambridge Assessment International Education

Cambridge International AS & A Level

ECONOMICS **9708/43**

Paper 4 A Level Data Response and Essays **October/November 2025**

2 hours

2743971832

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.

DC (EV) 351817/1
© UCLES 2025

[Turn over

stemup.co.uk

Section A

Answer all parts of Question 1.

1 Inequality and globalisation

A government commission published a report saying that global poverty and inequality were worsening and there was a risk that the gap between the rich and the poor would increase.

But, according to a newspaper, a lot of what is said about inequality is wrong. It overlooks the fact that the past 50 years saw a period of dramatic reduction in global inequality. The normal measurement of relative inequality is the Gini coefficient. The figure for global inequality in 1975 was 0.75, in 2020 it was 0.72 and in 2022 it was 0.67.

It is important to understand this trend rather than make the mistake of the commission.

The fall in global inequality should not come as a surprise. For about two hundred years the benefits of industrialisation went mainly to countries in Europe and North America. Income inequality between these countries and poorer countries worsened. The spread of globalisation in recent decades has meant this difference has lessened. Countries such as China and India have benefited from large increases in per capita (average) income, as shown in Table 1.1.

Table 1.1 Per capita (average) income and Gini coefficient for China and India 1990 and 2016

	Per capita (average) income (US$)		Gini coefficient	
	1990	2016	1990	2016
China	<1 000	>13000	0.32	0.38
India	<1 200	>7 000	0.32	0.36

With such an increase in per capita incomes maybe some level of inequality does not matter. Indeed, it might be a necessary condition for economic growth. Instead of concentrating on eliminating inequality perhaps the focus should be on the absolute position of the poorest.

If the attention is on the relief of poverty rather than the wealth of the richest, improvements can be seen. Life expectancy has increased, most noticeably by ten years in the past two decades in the poorest region of sub-Saharan Africa. Literacy rates have also increased. Those in absolute poverty across the world have fallen from more than a third to under a tenth of the world's population. And all this while the world's population has increased.

Critics of globalisation and foreign direct investment (FDI) by multinational companies point to the possible negative environmental effects, the weakening of individual cultures and the reliance on international financial institutions that can fail. They also claim there can be exploitation of workers leading to greater wage inequality and possible increases in domestic unemployment as cheaper goods are imported.

Source: The Times*, 23 August 2021*

© UCLES 2025

stemup.co.uk

(a) The article refers to the Gini coefficient. With the help of a diagram explain the link between a Gini coefficient and a Lorenz curve. [5]

(b) **(i)** Distinguish between equity and equality. [2]

(ii) 'But, according to a newspaper, a lot of what is said about inequality is wrong.'

Analyse whether there is a conflict between what the newspaper wrote about changes in equality and Table 1.1. [5]

(c) With reference to the article, explain the idea of globalisation and assess whether there is enough evidence to conclude that globalisation has a net benefit for everyone. [8]

Section B

Answer **one** question.

EITHER

2 With the help of a diagram, evaluate the impact on consumers and producers of an increase in market contestability. [20]

OR

3 With the help of a diagram, assess the importance of the supply of labour in relation to the wage and employment levels for firms operating in perfectly competitive and monopsony labour markets. [20]

Section C

Answer **one** question.

EITHER

4 With the help of a diagram, evaluate the effectiveness of using monetary policy to increase the rate of economic growth in a country. [20]

OR

5 'The use of tariffs is the most effective way to correct a balance of payments deficit.'

With the help of a diagram, evaluate this statement. [20]

© UCLES 2025

stemup.co.uk

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.

© UCLES 2025

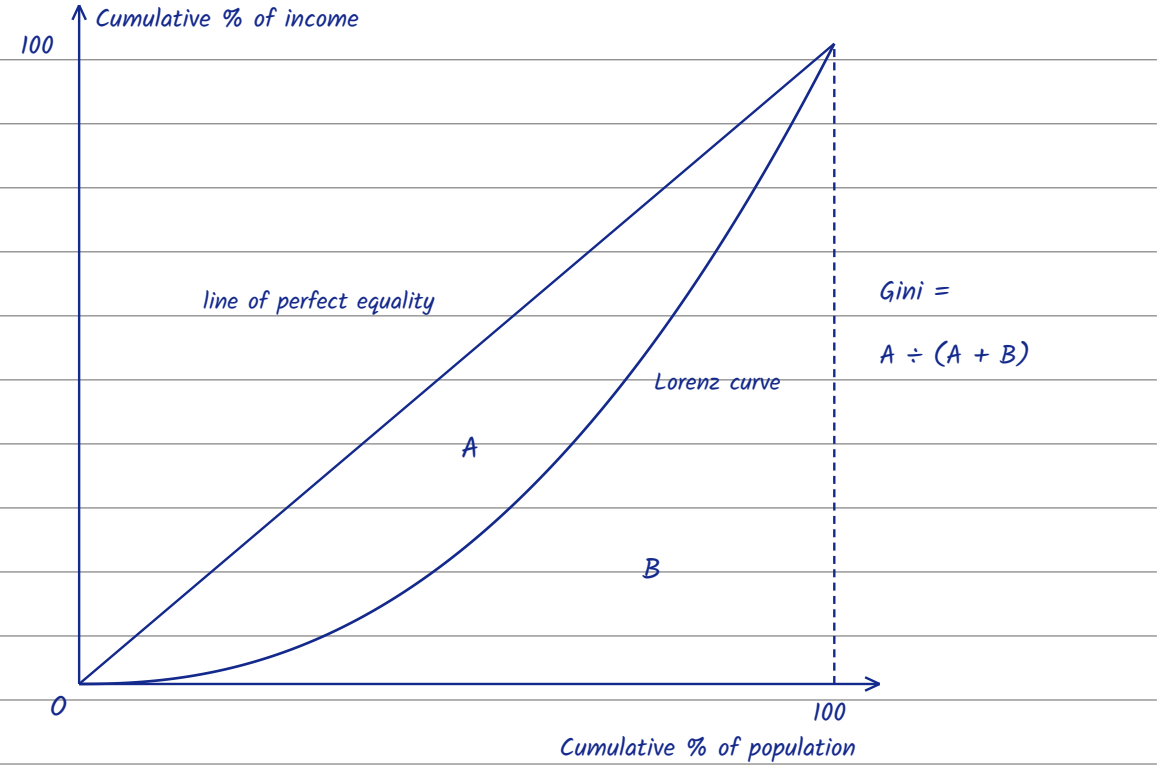
stemup.co.uk

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) The Gini coefficient measures the extent to which the distribution of income (or wealth) in a country is unequal. It is calculated from the Lorenz curve, which plots the cumulative % of income received against the cumulative % of the population, from poorest to richest.



If income were equally distributed, the Lorenz curve would be the 45° line of perfect equality. The further the Lorenz curve bows away from this line, the more unequal the distribution. The Gini coefficient is the area A between the line of equality and the Lorenz curve divided by the total area under the line of equality: Gini = A ÷ (A + B). A value of 0 means perfect equality and a value of 1 means perfect inequality (one person has all the income), so the global fall from 0.75 to 0.67 means the Lorenz curve moved closer to the line of equality.

Question number	
1(b)(i)	Equality means everyone being treated the same or having the same, for example equal opportunities or equal shares of income. Equity means fairness: achieving fairer outcomes, which may mean treating people differently according to need, so an equitable distribution is not necessarily an equal one.
1(b)(ii)	The newspaper says inequality has fallen: the global Gini coefficient fell from 0.75 in 1975 to 0.72 in 2020 and 0.67 in 2022. Table 1.1 seems to conflict with this, because inequality rose in both countries: China's Gini coefficient rose from 0.32 to 0.38 and India's from 0.32 to 0.36 between 1990 and 2016. However, the conflict is limited. The newspaper's figures are a global measure, mainly of inequality between countries, while the table measures inequality within two particular countries. As China's per capita income rose from under $1000 to over $13 000 and India's from under $1200 to over $7000, these large, poor countries caught up with rich countries, so global inequality fell even though the gap between rich and poor within each country widened. There is no conflict about incomes: both the text and the table show per capita incomes rising strongly. So the table gives only limited support to the newspaper, but it does not contradict it.
1(c)	Globalisation is the growing interdependence of the world's economies, cultures and populations, brought about by cross-border trade in goods and services, technology and flows of investment, people and information, for example through FDI by multinational companies. The article gives evidence of benefits. Per capita incomes rose strongly, in China from under $1000 to over $13 000. Global inequality fell (the Gini coefficient fell from 0.75 to 0.67), life expectancy rose by ten years in sub-Saharan Africa, literacy rates increased, and the share of the world's population in absolute poverty fell from more than a third to under a tenth, even while the world's population

Question number

grew, so the benefits are probably substantial.

It also mentions drawbacks: negative environmental effects, the weakening of individual cultures, reliance on international financial institutions that can fail, exploitation of workers, greater wage inequality and higher domestic unemployment as cheaper goods are imported. Table 1.1 shows inequality within China and India rose, so not everyone gained equally.

There is not enough evidence to conclude that globalisation has a net benefit for everyone. The benefits are given as averages and the drawbacks are not measured, so they cannot be compared, and other causes, such as government policy, may explain some improvements. It also depends on what net benefit means: more goods and higher incomes, or wider choice, better quality and a better environment. Some groups, such as workers who lose their jobs to imports, are clearly worse off, so globalisation may give a net benefit overall but not for everyone.

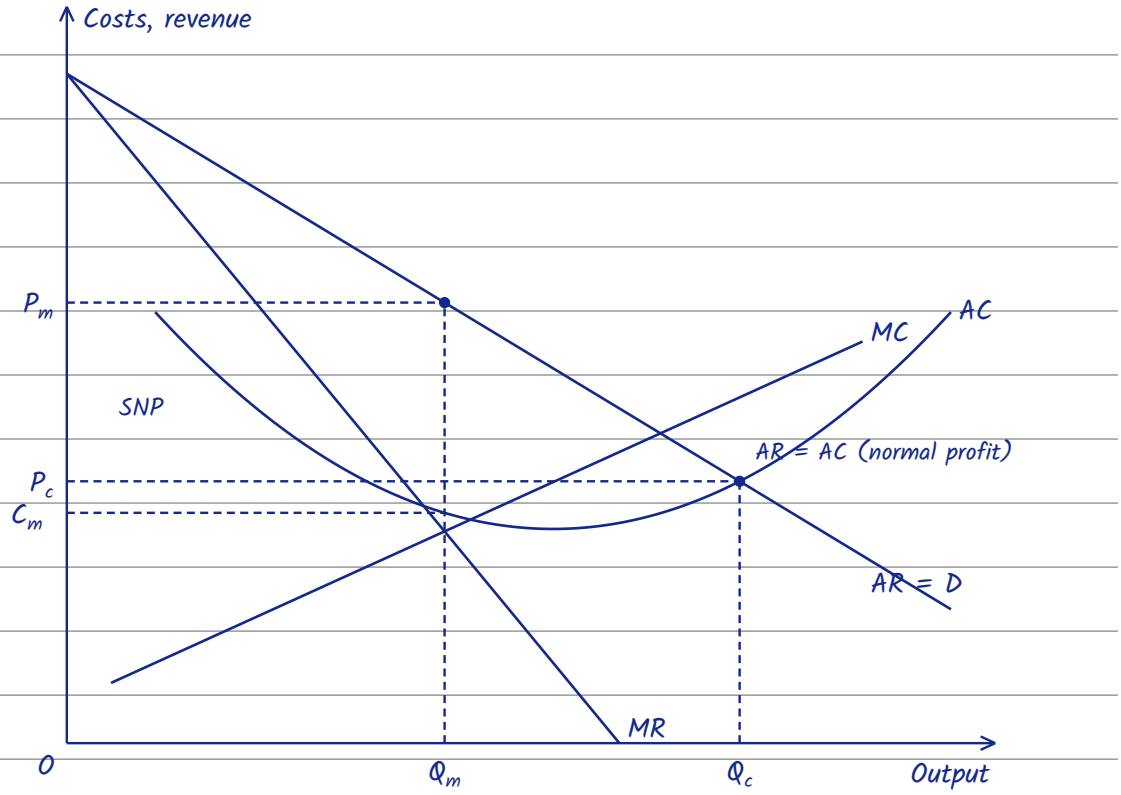
Section B

2 Market contestability is the degree to which a market is open to new competition, so that firms can enter and leave freely. A perfectly contestable market has no barriers to entry or exit and no sunk costs, so new firms can carry out hit-and-run entry whenever existing firms make supernormal profit. Contestability is limited by barriers to entry such as high sunk costs (for example advertising or specialist equipment that cannot be recovered on exit), economies of scale, patents and licences, brand loyalty and control of supplies.

When a market is not contestable, a monopolist protected by high barriers maximises profit where MR = MC, at output Qm and price Pm. Because Pm is above average cost Cm, it earns supernormal profit, and since no firm can enter, this profit is kept in the long run. Price is above MC, so the outcome is

Question number

allocatively inefficient, and output is not at minimum AC, so it is productively inefficient. Without the threat of competition, the firm may also allow costs to rise (X-inefficiency).



If contestability increases, for example through deregulation, the removal of legal barriers or lower sunk costs, the existing firm faces the threat of entry. If it continues to charge Pm, new firms will enter and take its profits. To deter entry, it lowers its price towards the point where AR = AC, at Pc and Qc in the diagram, making only normal profit (limit pricing). Consumers benefit from a lower price, a higher output and more consumer surplus. If firms do enter, consumers gain more choice and better quality, and price moves closer to MC, so allocative efficiency improves.

Producers are affected in several ways. Incumbent firms lose supernormal profit and market share, so their shareholders lose. However, the threat of competition gives them an incentive to cut costs and remove X-inefficiency, so they become more productively efficient. They may innovate or improve quality to keep

Question number

customers. New entrants gain the chance to earn profit, as when low-cost airlines entered deregulated air travel markets, causing fares to fall sharply.

However, the effects are not always beneficial. If firms lose market share, they may no longer benefit from economies of scale to the same extent, so average costs rise and lower prices may not be passed on to consumers. In a natural monopoly, such as water supply or railways, the market can support only one firm at lowest cost, so more contestability may cause wasteful duplication. Lower supernormal profits mean firms have less to invest in research and development, so dynamic efficiency may fall and future consumers may face higher prices or fewer new products. Hit-and-run entry can also make supply less reliable.

The size of the impact depends on the degree of contestability introduced and whether it can be maintained: incumbent firms may use strategic barriers such as predatory pricing, heavy advertising or exclusive contracts to deter entry. It also depends on the type of industry and on whether the government regulates to keep entry open.

In conclusion, an increase in contestability usually benefits consumers through lower prices, more choice and greater efficiency, and it benefits new entrants, while existing producers lose supernormal profit but are forced to become more efficient. The net benefit is greatest in industries without large economies of scale; in natural monopolies, or where research and development is important, the gains may be small or negative.

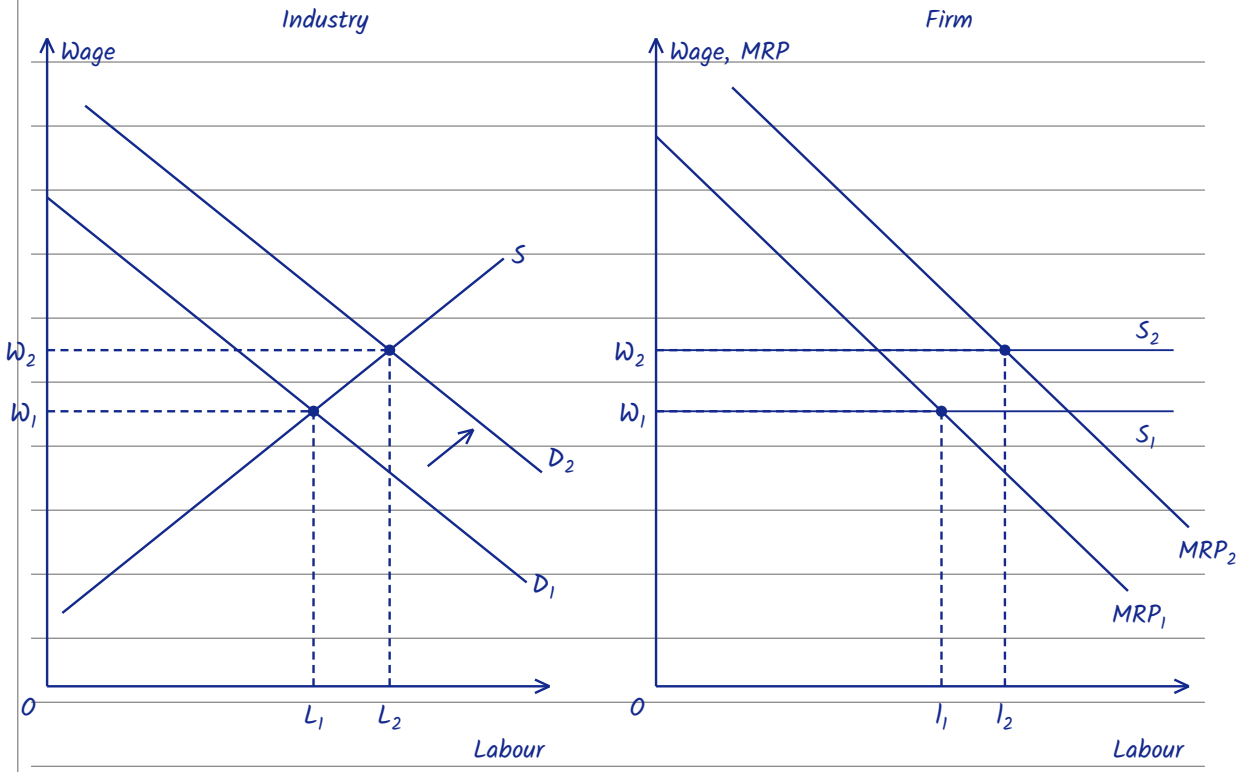
3

The supply of labour is the number of workers willing and able to work at each wage rate. In a perfectly competitive labour market there are many firms and many workers, workers are homogeneous and mobile, there is perfect information, and no single firm or worker can influence the wage. The wage is set by market demand and supply, and each firm is a wage taker.

In the left diagram, the industry wage W1 is set where industry demand D1 equals

Question number

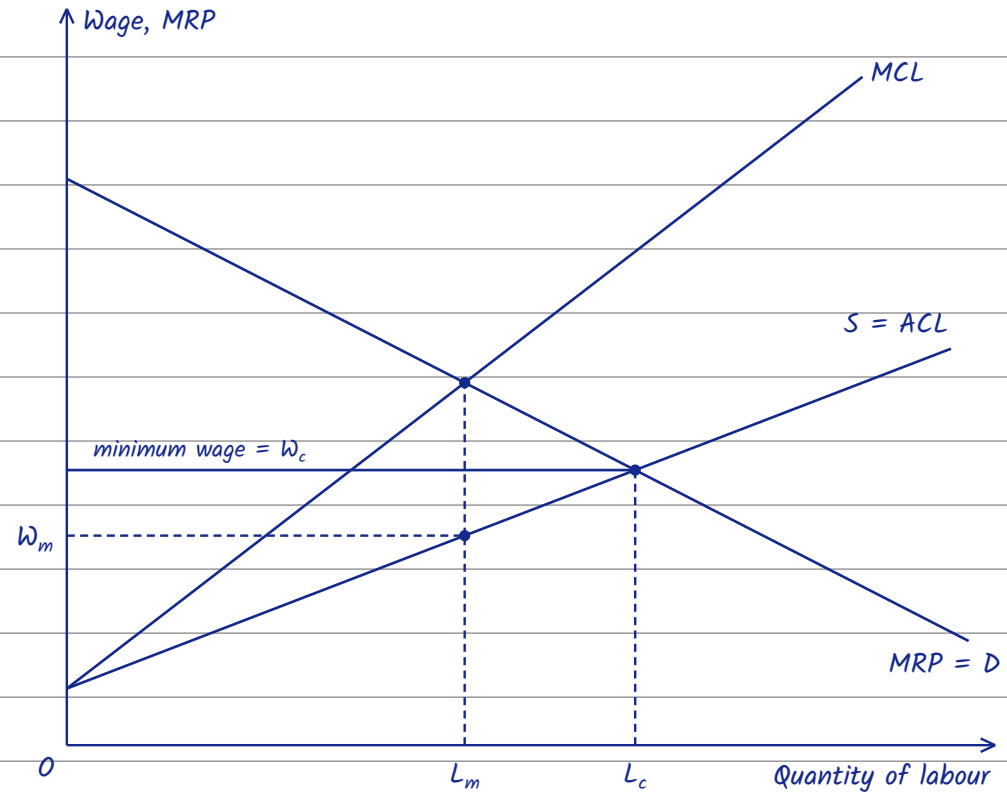
supply S. The individual firm can hire as many workers as it wants at W1, so the supply of labour to the firm is perfectly elastic, S1, and the wage equals the marginal cost of labour. The firm employs workers up to where MRP = wage, employing l1. The supply of labour to the firm therefore fixes the wage, while employment depends on MRP. If demand for labour in the industry rises, for example because productivity rises across the market, the industry wage rises to W2, and each firm faces a higher perfectly elastic supply S2 and, with MRP2, employs l2. Similarly, a fall in the supply of labour across the market, such as a shortage of skills, raises the wage paid by every firm.



In a monopsony labour market there is a single buyer of labour, for example the only large employer in a town. The monopsonist faces the upward-sloping market supply of labour, S = ACL, so to employ an extra worker it must raise the wage for all workers. The marginal cost of labour (MCL) is therefore above the supply curve. It employs where MCL = MRP, at Lm, and pays only the wage needed to attract Lm workers, read from the supply curve, Wm. Compared with a competitive market at Wc and Lc, workers receive a lower wage and there is less employment,

Question number

and the wage is below the MRP of labour, so workers are exploited. Here the upward-sloping supply of labour is the reason the firm restricts employment: the more inelastic the supply, the larger the gap between MCL and S and the lower the wage.



The supply of labour is therefore important in both markets, but in different ways. In a perfectly competitive market, the perfectly elastic supply to the firm does not mean the wage is fixed for ever: it changes whenever market supply or demand changes. An increase in the MRP of labour in one firm alone will not raise its wage, but it will still increase employment. So demand, through MRP, is just as important as supply in determining employment.

In monopsony, intervention can change the effective supply of labour. If the government sets a minimum wage at Wc, the supply of labour becomes perfectly elastic at Wc up to Lc, so MCL equals Wc over this range. The firm then employs where Wc = MRP, so both wages and employment rise to the competitive level. A trade union bargaining for a higher wage can have the same effect. However, if

Question number

the minimum wage is set too high, above Wc, employment falls. In practice, the elasticity of labour supply, the mobility of workers and the degree of monopsony power are hard to measure, and real markets lie between the two models.

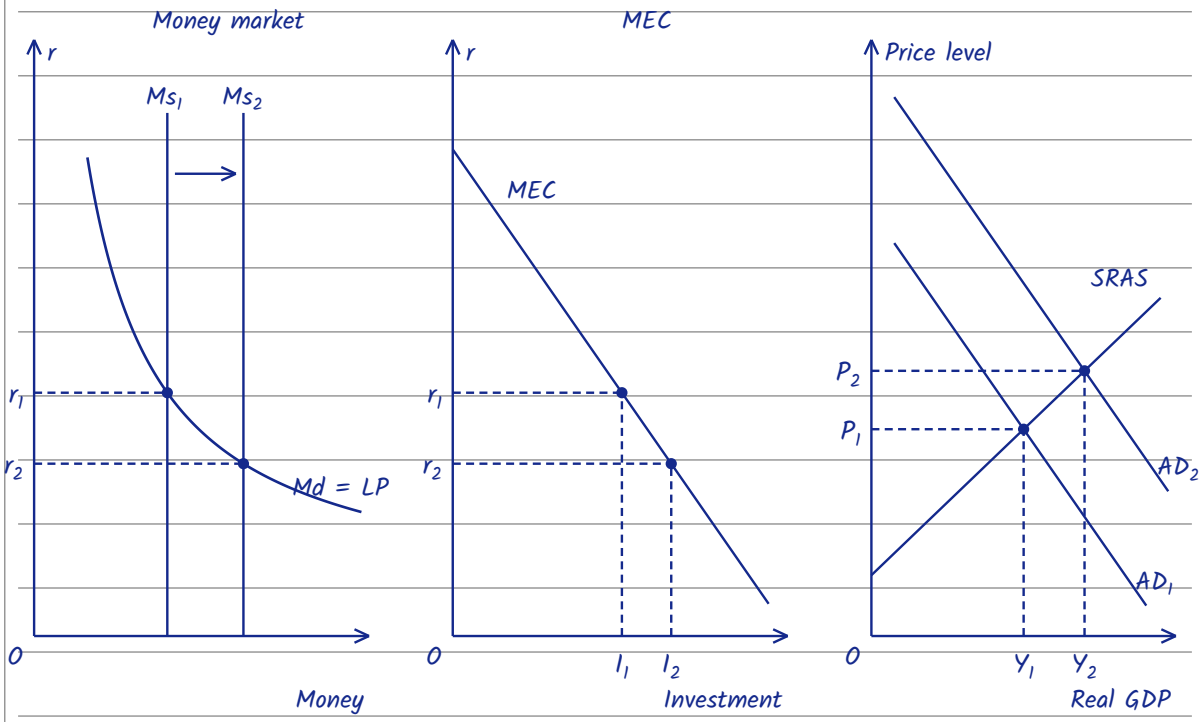
In conclusion, the supply of labour is very important: in perfect competition it sets the wage that each firm must pay, and in monopsony its upward slope allows the employer to pay lower wages and employ fewer workers. However, wage and employment levels also depend on demand for labour, shown by MRP, and on intervention by governments and trade unions.

Section C

4 Economic growth is an increase in real GDP over time, which raises incomes, employment and living standards. Monetary policy is the use of interest rates, the money supply and the exchange rate by the central bank to influence aggregate demand. To increase growth, expansionary monetary policy is used: cutting interest rates, increasing the money supply, for example by quantitative easing, or lowering the exchange rate.

The transmission mechanism is shown in the diagrams. An increase in the money supply from Ms1 to Ms2 lowers the interest rate from r1 to r2. Lower interest rates reduce the cost of borrowing, so more investment projects become profitable and investment rises along the MEC curve from I1 to I2. Households pay less on mortgages and loans and the reward for saving falls, so consumption rises, especially of durables bought on credit. Lower rates also cause hot money outflows, so the currency depreciates, making exports cheaper and imports dearer, so (X – M) rises. AD shifts right from AD1 to AD2 and, through the multiplier, real GDP rises from Y1 to Y2, so the economy grows.

Question number



However, the effectiveness of monetary policy depends on the state of the economy. It has the greatest effect on real output when there is significant spare capacity. If the economy is close to full employment, higher AD mainly causes demand-pull inflation, so the price level rises with little growth. An increase in the money supply may also cause inflation, as the quantity theory of money suggests. Lower interest rates may not increase spending. If interest rates are already close to zero, they cannot be cut much further, and in a liquidity trap extra money is simply held, so interest rates do not fall. If the MEC curve is inelastic, a fall in interest rates causes only a small rise in investment. In a recession, firms and households have negative expectations: they will not borrow and spend however cheap credit is, and banks may be unwilling to lend. Monetary policy also works with long and variable time lags of up to two years.

A depreciation will only lead to export-led growth if the Marshall–Lerner condition holds, so that the sum of the price elasticities of demand for exports and imports is greater than one. In the short run the J-curve means the current account worsens first. Dearer imported raw materials may cause cost-push inflation, and other countries may retaliate.

Question number

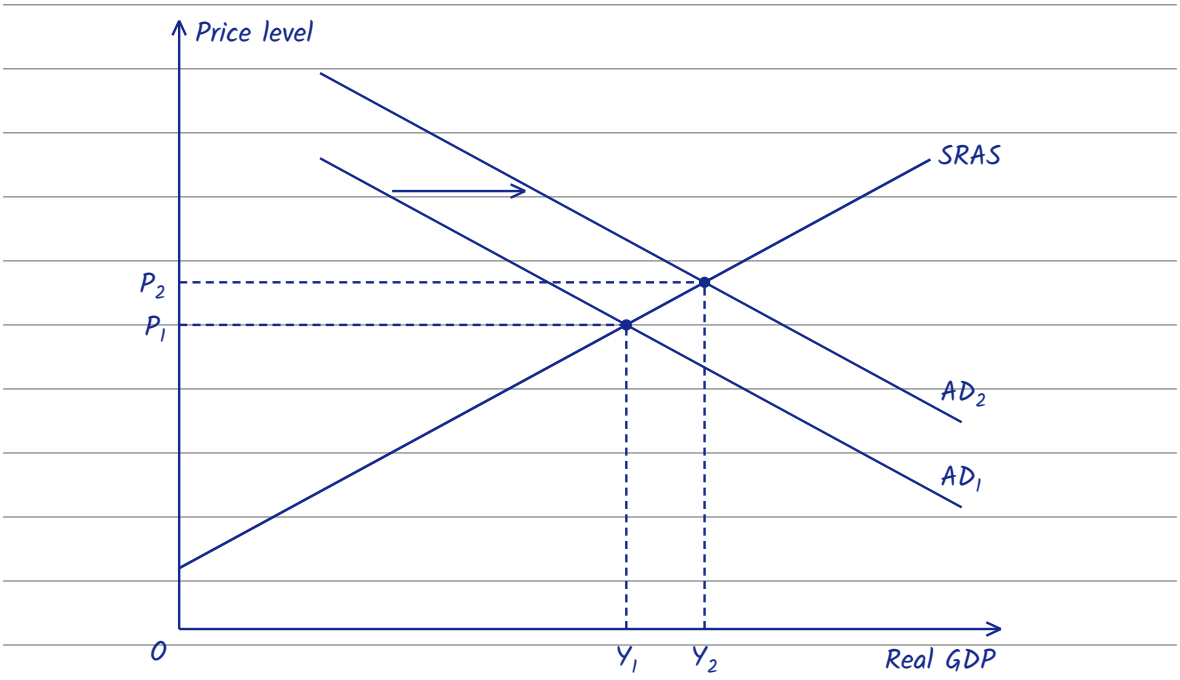
Monetary policy also mainly increases actual growth by using spare capacity. It does little directly to raise potential growth, apart from encouraging investment that adds to the capital stock. In stagflation, cutting interest rates may reduce unemployment but worsen inflation. Supply-side policies such as education, training and investment in infrastructure raise LRAS and are a more appropriate long-term policy, while fiscal policy may be more effective in a deep recession.

In conclusion, expansionary monetary policy can be effective in increasing growth in the short run when there is spare capacity, low inflation and confidence among firms and consumers. It is much less effective in a liquidity trap, when expectations are poor or the economy is near full employment, and long-run growth depends more on supply-side policies, so it works best combined with fiscal and supply-side measures.

5 A tariff is a tax on imports, which raises their price and acts as a barrier to free trade. The balance of payments records all transactions between a country and the rest of the world. Its current account includes trade in goods and services, primary income and secondary income, while the capital and financial accounts record flows of capital such as FDI. A current account deficit means more money flows out for imports and income than flows in, which increases the supply of the currency and puts downward pressure on the exchange rate.

A tariff is an expenditure-switching policy. It raises the domestic price of imports, so consumers switch from imports to domestically produced goods. If demand for imports is price elastic, spending on imports falls and the deficit on trade in goods narrows. Because (X – M) increases, AD rises from AD1 to AD2. The rise in domestic output is shown by the increase in real GDP from Y1 to Y2, and the multiplier raises income further, increasing employment in import-competing industries. The government also gains tariff revenue.

Question number



However, the effect depends on the price elasticity of demand for imports. If imports are price inelastic, such as oil, food or components with no domestic substitute, the volume falls little and total spending on imports may even rise, worsening the deficit. Tariffs on imported raw materials raise firms' costs, causing cost-push inflation and making exports less competitive. The rise in AD shown in the diagram also raises the price level from PI to P2, and higher incomes increase the demand for imports, partly reversing the improvement.

Tariffs often provoke retaliation. If trading partners impose tariffs on the country's exports, X falls and the improvement in the balance of payments may disappear, as in trade wars. Tariffs may also break World Trade Organisation rules or trade agreements. They protect inefficient domestic firms, which have less incentive to cut costs and innovate, so in the long run competitiveness may fall. Consumers lose consumer surplus through higher prices and less choice, and there is a deadweight loss, so world resources are allocated less efficiently.

The best policy depends on the cause of the deficit. If it is caused by high inflation and excess demand, an expenditure-reducing policy such as higher interest rates, higher taxes or lower government spending reduces AD and so imports, and

Question number

lowers inflation. A depreciation or devaluation of the currency is another expenditure-switching policy that makes exports cheaper as well as imports dearer, and it does not break trade rules, although it depends on the Marshall–Lerner condition and the J-curve. If the deficit is persistent because of a lack of competitiveness, supply-side policies such as education, training and investment in infrastructure raise productivity and improve the quality of exports, giving a long-term solution. A short-term deficit financed by capital inflows may need no action at all.

In conclusion, tariffs can reduce a balance of payments deficit in the short run, especially if demand for imports is price elastic and there is no retaliation. However, they are not the most effective way, because of retaliation, inflation, inefficiency and loss of consumer welfare. A combination of expenditure-reducing policy in the short run and supply-side policies in the long run is likely to be more effective and sustainable.

Cambridge Assessment International Education

Cambridge International AS & A Level

ECONOMICS **9708/44**

Paper 4 A Level Data Response and Essays **October/November 2025**

2 hours

3752979692

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.

DC (JP) 360350
© UCLES 2025

[Turn over

stemup.co.uk

Section A

Answer all parts of Question 1.

1 **Market Economies**

From Adam Smith onwards, most economists have regarded competitive markets as the main mechanism of economic activity. They argue that the interaction between producers and consumers can lead to both allocative efficiency and productive efficiency.

It can, however, be questioned whether the market automatically produces the best solution. Sometimes there are significant reasons for governments to intervene in a market in order to produce a better outcome than market forces alone. These situations are market failures.

When producing goods and services firms consider the private costs they pay and private benefits they receive. For example, a steel producer accounts for the cost of iron ore, fuel, labour and administration. It offsets these costs against the revenue from selling the steel. However, those people who live near the steelworks suffer the consequences of the noise, dirt and polluted air generated as part of the production process. Similarly, in many areas the extraction of iron ore can lead to environmental destruction such as the degradation of ground water for domestic consumption and a reduction in the variety of wildlife and flowers.

Competitive markets as envisaged by economists, however, may not exist. Firms may integrate to gain the benefits of economies of scale, to realise their ambition to rule the market or to increase their market share. Such integration might lead to the development of a monopoly market structure. Many believe that a monopoly always operates against the interests of the consumer because of its lack of efficiency. As a result, governments often restrict the operation of monopolies.

(a) Explain the meaning of 'allocative efficiency and productive efficiency'. [4]

(b) **(i)** Explain what is meant by a negative production externality. [2]

(ii) Identify from the extract a negative production externality resulting from steel production. [1]

(iii) Explain, with the aid of a diagram, the consequences for output and price if the steel market is required to take into consideration negative production externalities. [5]

(c) Consider whether 'a monopoly always operates against the interests of the consumer'. [8]

© UCLES 2025

stemup.co.uk

Section B

Answer **one** question.

EITHER

2 Evaluate, with the aid of a diagram, whether the diminishing marginal utility theory of demand provides an adequate explanation of the market demand curve for all goods and services. [20]

OR

3 Subnormal and supernormal profits are only experienced in the short run and only by firms in perfect competition.

With the help of diagrams, evaluate this statement. [20]

Section C

Answer **one** question.

EITHER

4 A country imposes a tariff of 20% on imported goods and restricts the number of immigrants entering the country.

Evaluate, with the aid of a diagram(s), the impact of these **two** policies on the rate of inflation in that country. [20]

OR

5 Evaluate whether an increase in a government's budget deficit will always lead to economic growth. [20]

© UCLES 2025

stemup.co.uk

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.

© UCLES 2025

stemup.co.uk

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) Allocative efficiency is when resources are allocated so that firms produce the goods and services consumers want, in the quantities they want, where price = marginal cost (P = MC, or AR = MC), so the value consumers place on the last unit equals the cost of producing it.

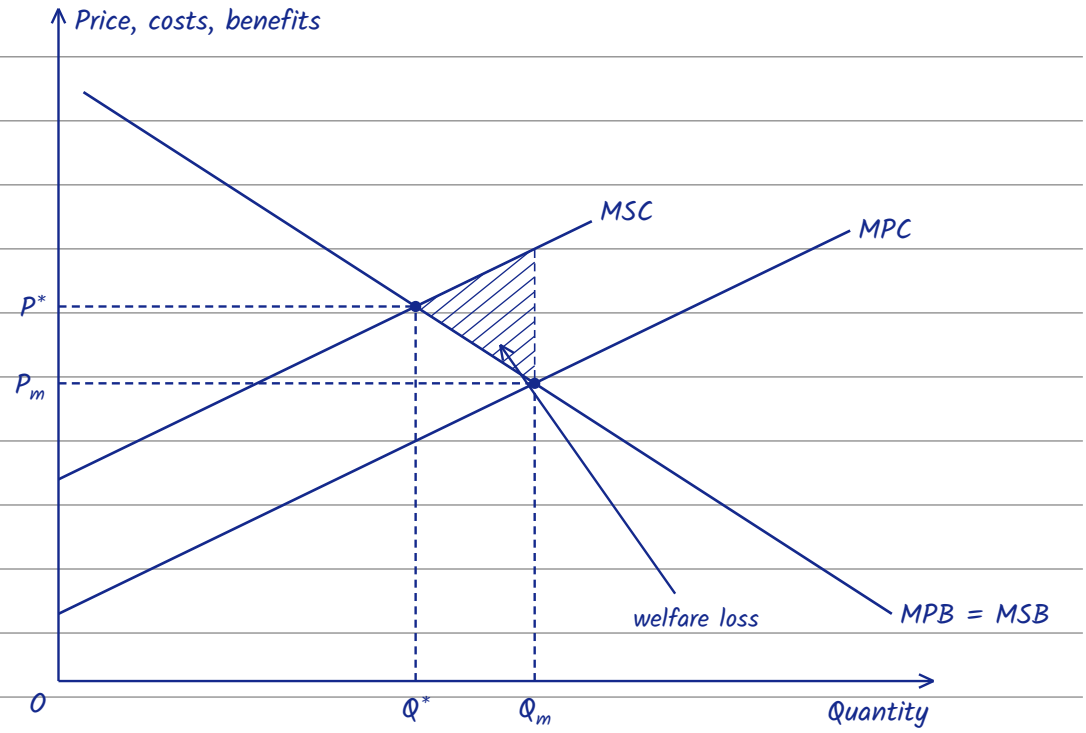
Productive efficiency is when goods and services are produced using the least possible resources, at the lowest point of the average cost curve (minimum AC), so the economy is producing on its production possibility curve.

1(b)(i) A negative production externality is a cost arising from the production of a good that is borne by a third party, someone other than the producer or consumer, who is not compensated, so the social cost is greater than the private cost.

1(b)(ii) The polluted air suffered by people who live near the steelworks.

1(b)(iii) In the free market, steel producers consider only their private costs (MPC), so the market is in equilibrium where MPB = MPC, at output Qm and price Pm. Because production creates external costs such as noise, dirt and polluted air, the marginal social cost is MSC = MPC + external cost, which lies above MPC.

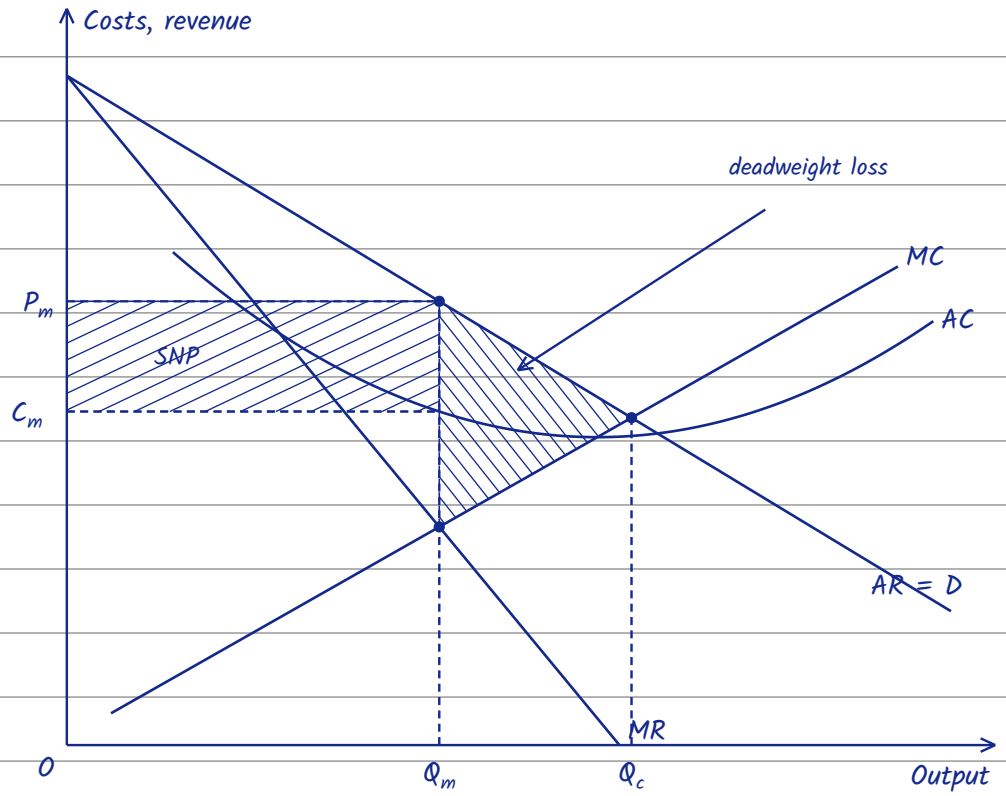
Question number



If the steel market is required to take the negative externality into account, for example through a tax equal to the external cost, the supply curve becomes MSC. Output falls from Qm to Q^* and the price rises from Pm to P^*, where MSB = MSC. This is the socially optimum level of output, so the welfare loss shown by the shaded triangle, caused by over-production between Q^* and Qm, is removed.

1(c) The extract suggests a monopoly always operates against consumers. A monopolist maximises profit where MR = MC, producing Qm and charging Pm. Price is above MC, so it is allocatively inefficient, and output Qm is less than the competitive output Qc, causing the deadweight loss shown. It does not produce at minimum AC, so it is productively inefficient, and high barriers to entry protect its supernormal profit (SNP) in the long run. Without competition it may also become X-inefficient and lack the incentive to innovate, so it lacks dynamic efficiency, and consumers have less choice.

Question number



However, a monopoly does not always act against consumers. A large monopoly can gain economies of scale, such as bulk buying and specialised capital, so its average costs may be much lower than those of many small competitive firms, and its price may be lower and output higher than in a competitive market. Its supernormal profit can be used for research and development, leading to new and better products in the long run (dynamic efficiency). In a natural monopoly such as railways or water supply, one firm can supply the whole market at a lower average cost than several firms, avoiding wasteful duplication.

Consumers may also be protected if the market is contestable or if the government regulates the monopoly, for example with price caps. So a monopoly does not always operate against consumers: it depends on economies of scale, its use of profits and how it is regulated.

Question number

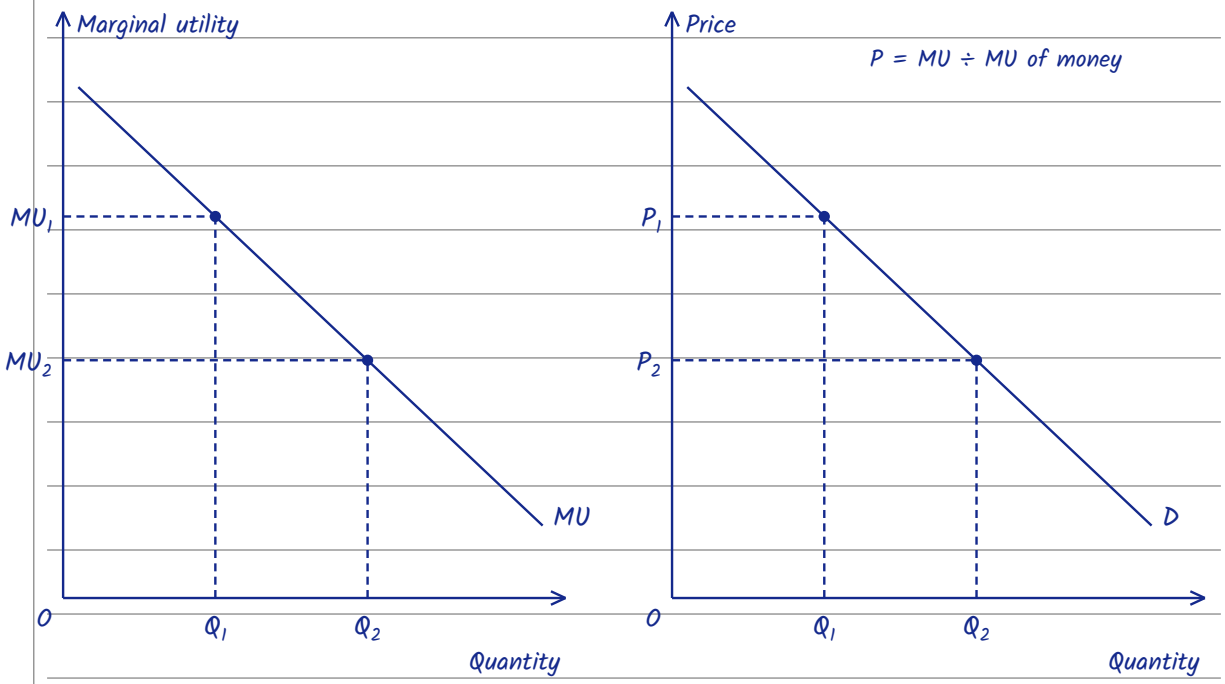
Section B

2 Utility is the satisfaction a consumer gets from consuming a good. Total utility is the total satisfaction from all units consumed, and marginal utility (MU) is the extra satisfaction from consuming one more unit. The law of diminishing marginal utility states that as a consumer consumes more units of a good in a given period, the MU of each extra unit falls: the first cup of coffee gives more satisfaction than the fourth.

The theory assumes that consumers are rational and aim to maximise their total utility from a limited income, that utility can be measured, that they have perfect knowledge of prices and of the utility of goods, and that the marginal utility of money is constant. Usually a simple two-good world is assumed in which the goods can be substituted for each other.

A consumer will buy a good up to the point where the value of its MU, measured in money, equals its price. Because MU falls as more is consumed, the consumer will buy more only if the price falls. In the diagram, at price P1 the consumer buys Q1, where MU equals P1. If the price falls to P2 they buy Q2, where the lower MU2 equals the lower price. The MU curve therefore becomes the consumer's downward-sloping demand curve.

Question number



With two goods, A and B, utility is maximised when the equi-marginal principle holds: MUa ÷ Pa = MUb ÷ Pb, so the last dollar spent on each good gives the same extra utility. If the price of A falls, MUa ÷ Pa becomes greater than MUb ÷ Pb, so the consumer switches spending to A. As they buy more A its MU falls, and as they buy less B its MU rises, until the equality is restored. More A is bought at the lower price, which again explains a downward-sloping demand curve.

The market demand curve is the horizontal sum of all individual demand curves, so it also slopes downwards, and as price falls new consumers also enter the market.

However, the theory does not provide an adequate explanation for all goods and services. It assumes consumers are rational and calculating, able to compare the utilities of a huge number of combinations of goods. In reality consumers buy many goods, not two, and behavioural economics shows they use rules of thumb, habits and impulse buying, are influenced by advertising and the behaviour of others, and do not always maximise utility. Utility cannot be measured in units, so the theory cannot be tested directly.

The theory also does not separate the income and substitution effects of a price change, so it cannot explain the demand for inferior goods, where a fall in price

Question number

makes consumers feel richer and buy less, or Giffen goods, where the demand curve slopes upwards. Veblen or ostentatious goods, such as designer watches, are bought because they are expensive, so demand may rise when the price rises. Some goods are indivisible, one-off purchases, such as a fridge or a car, where the choice is between one fridge and several weeks of food, so the idea of marginal units does not apply easily. The assumption that the MU of money is constant is unrealistic for large purchases or for people with very different incomes.

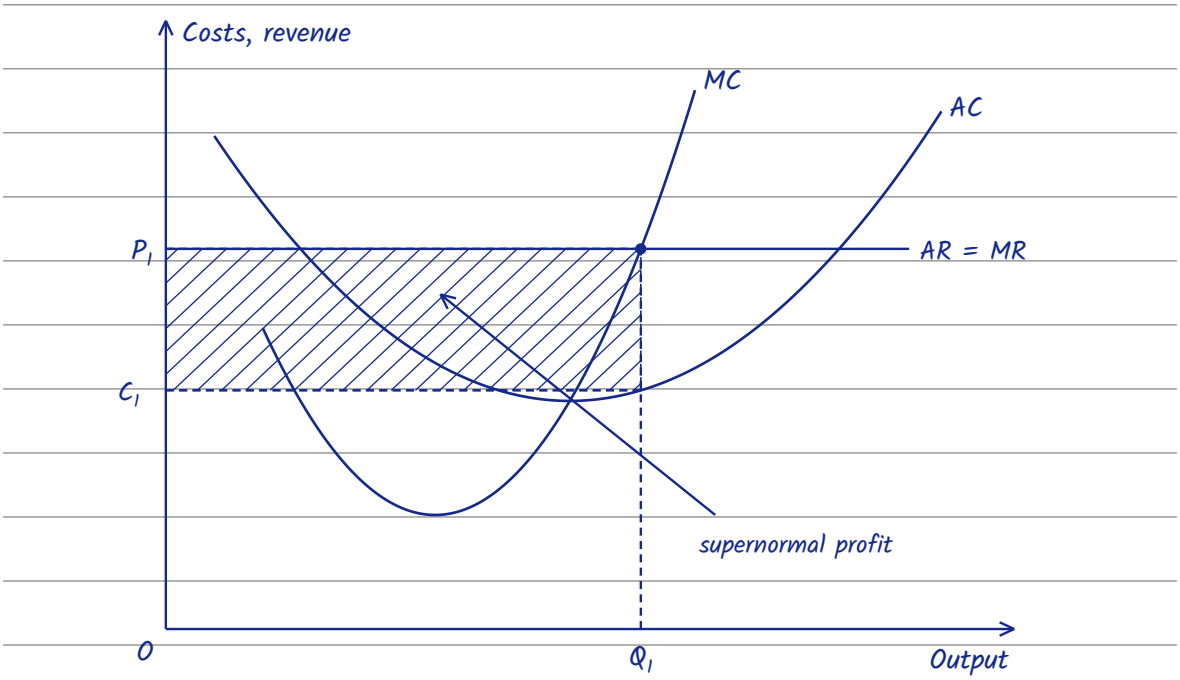
In conclusion, diminishing marginal utility gives a simple and useful explanation of why the market demand curve for most normal goods bought regularly slopes downwards. However, it is not adequate for all goods and services, as it cannot explain inferior, Giffen and Veblen goods or indivisible purchases, and it relies on unrealistic assumptions; indifference curve analysis gives a fuller explanation.

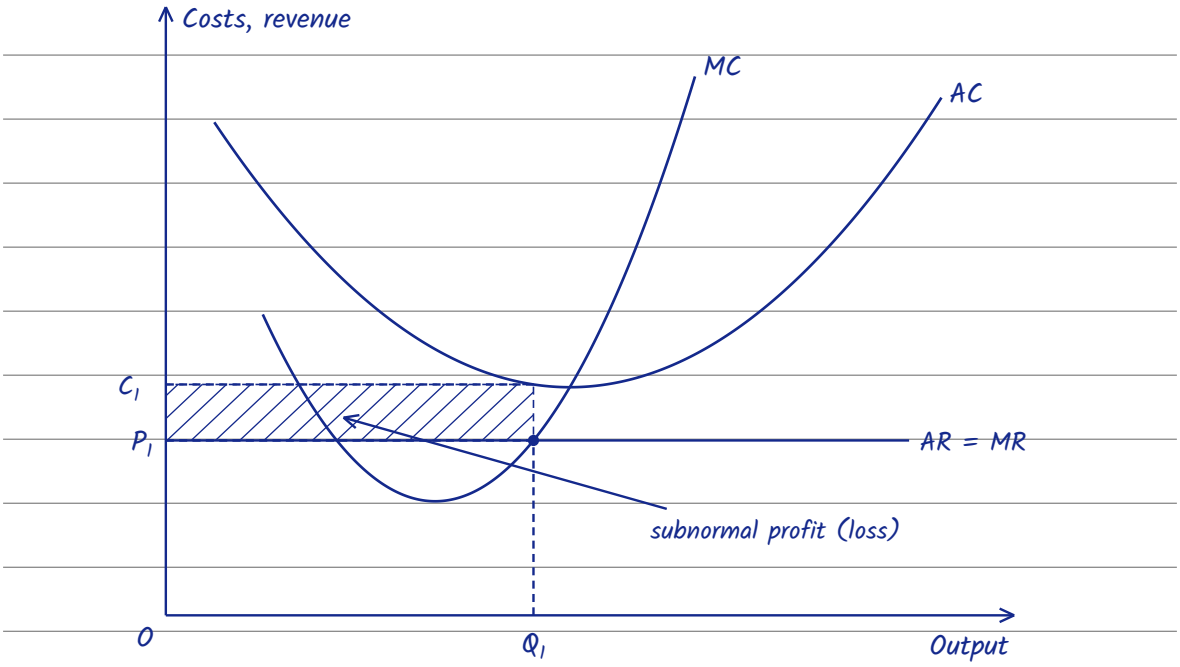
3

Normal profit is the minimum profit needed to keep a firm in an industry, where total revenue equals total cost (AR = AC), including the opportunity cost of the owner's resources. Supernormal profit is profit above this (AR > AC), and subnormal profit is profit below this, a loss in economic terms (AR < AC). The short run is the period in which at least one factor of production is fixed, so the number of firms in the industry is fixed; in the long run all factors are variable and firms can enter or leave.

Perfect competition has many small firms, a homogeneous product, perfect knowledge and no barriers to entry or exit. Each firm is a price taker, so AR = MR, and it produces where MR = MC. In the short run, if price is above AC, the firm makes supernormal profit, the shaded area (P1 – C1) × Q1 in the first diagram. If price is below AC, it makes subnormal profit, shown in the second diagram, and as long as price covers average variable cost it continues to produce in the short run.

Question number

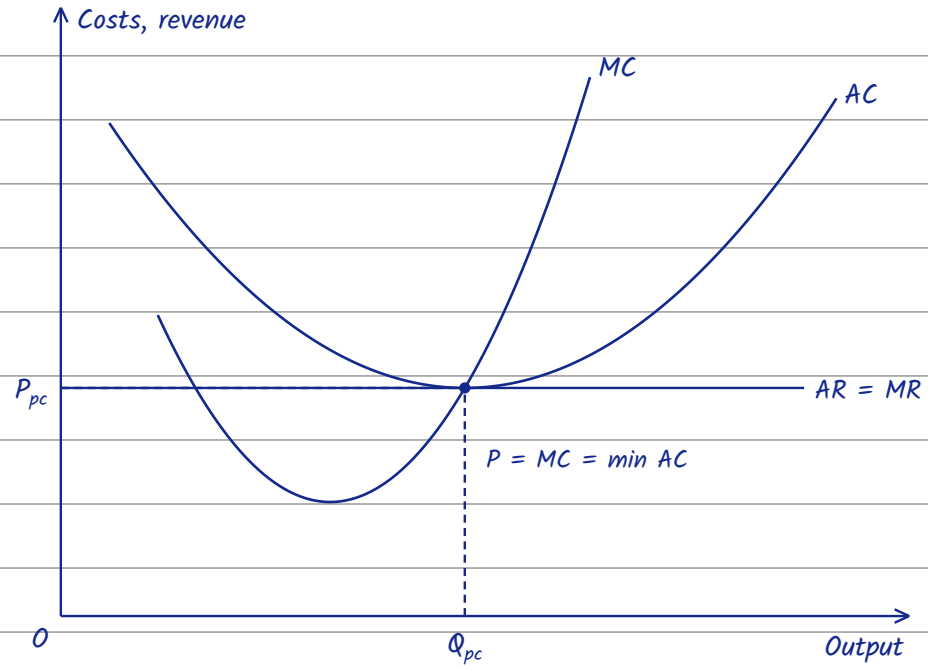




These profits cannot last in the long run. Supernormal profit attracts new firms, and since there are no barriers, market supply increases and the price falls until supernormal profit is competed away. With subnormal profit, some firms leave the industry, supply falls and the price rises. In long-run equilibrium each firm makes only normal profit where P = AR = MR = MC = minimum AC, as in the third diagram. So in perfect competition the statement is correct: supernormal and

Question number

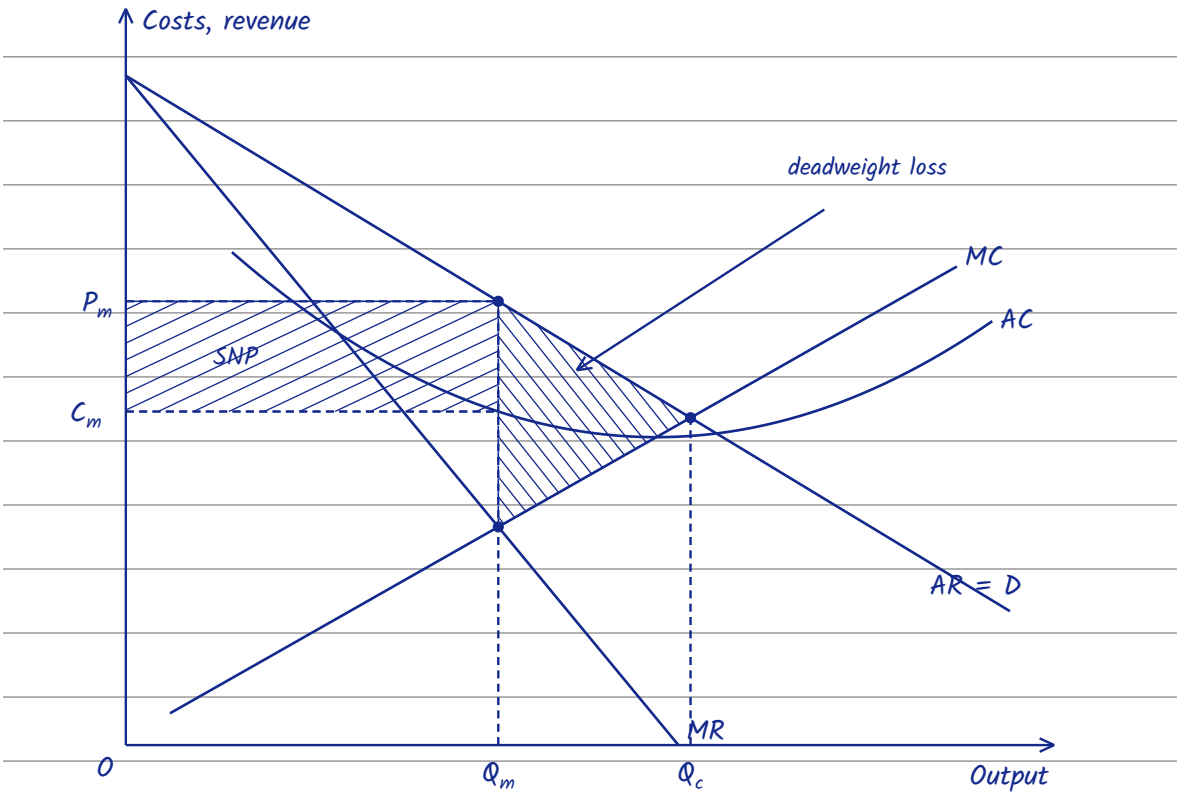
subnormal profits exist only in the short run.



However, the statement is wrong to say they are experienced only by firms in perfect competition. In monopolistic competition, with many firms selling differentiated products, a firm can make supernormal or subnormal profit in the short run. Because barriers to entry are low, new firms enter or firms leave, shifting each firm's demand curve until it is tangent to AC, so only normal profit is made in the long run, as in perfect competition.

In monopoly, high barriers to entry such as patents, economies of scale or control of resources prevent new firms from entering. The monopolist produces where MR = MC at Qm and charges Pm above AC, so it can make supernormal profit (SNP in the diagram) in the long run as well as the short run. A monopoly can also make subnormal profit in the short run, for example if demand falls in a recession.

Question number



In oligopoly, a few large firms protected by barriers to entry may make supernormal profit in both the short and the long run, especially if they collude, but a price war can cause subnormal profits, which may last for a long time if firms are willing to make losses to drive out rivals. If the market is contestable, even a monopolist or oligopolist may earn only normal profit, because the threat of entry keeps prices down. Firms in any structure may also make losses in the long run if they are subsidised or kept open by the government.

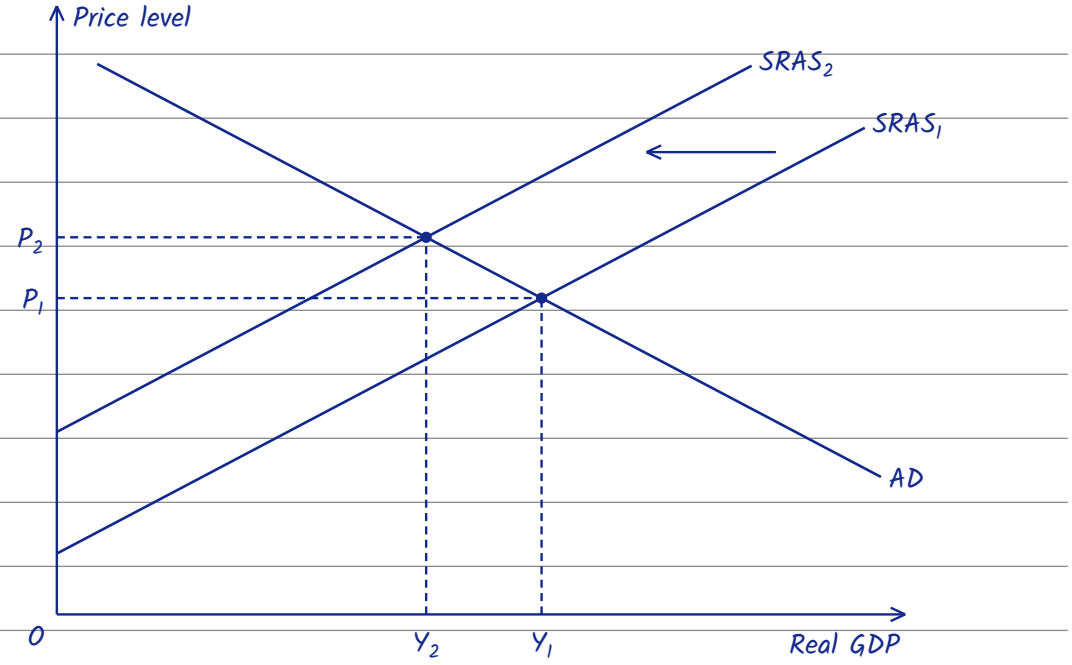
In conclusion, the statement is only partly correct. In perfect competition, and also in monopolistic competition, supernormal and subnormal profits exist only in the short run because there are no significant barriers to entry. But firms in all market structures can make these profits in the short run, and where barriers to entry are high, as in monopoly and oligopoly, supernormal profit can persist in the long run.

Question number

Section C

4 Inflation is a sustained rise in the general price level, measured by the annual percentage change in a consumer price index. A tariff is a tax on imported goods; here it is 20%, so imports become up to 20% more expensive. Restricting immigration reduces the number of workers entering the country, so the labour force grows more slowly.

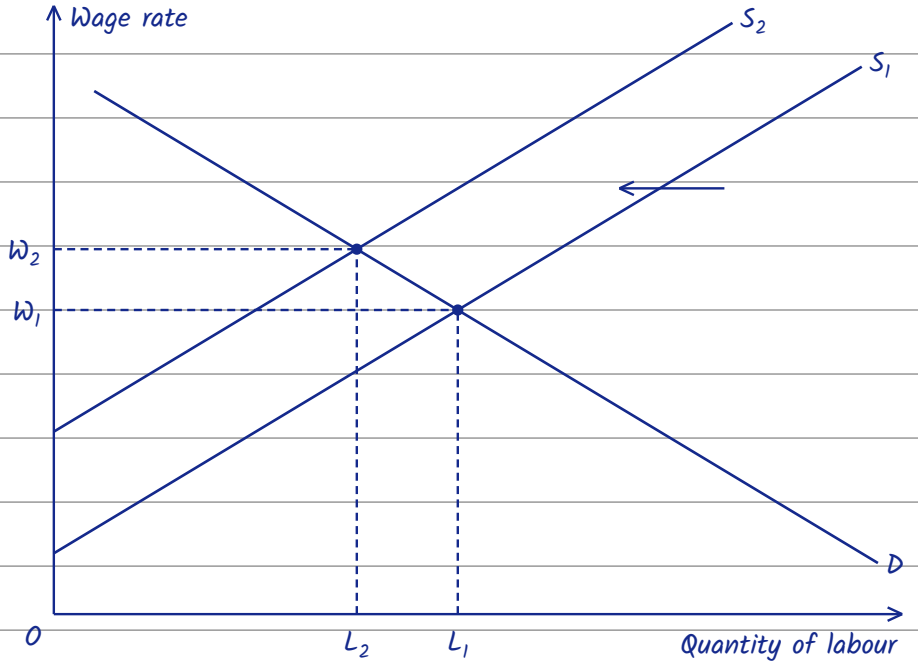
The tariff affects inflation directly and indirectly. Imported consumer goods in the price index become more expensive, directly raising the price level. Many imports are raw materials and components, so firms' costs rise and they pass these on in higher prices, causing cost-push inflation. Domestic producers competing with imports face less competition, so they can also raise their prices. In the diagram, higher costs shift SRAS left from SRAS1 to SRAS2, so the price level rises from P1 to P2 and real GDP falls from Y1 to Y2.



Restricting immigration reduces the supply of labour. In the labour market diagram, supply shifts left from S1 to S2, so the wage rises from W1 to W2. Domestic workers can bargain for higher wages, and sectors that relied on migrant workers,

Question number

such as farming, construction and care, face labour shortages. Higher wage costs again shift SRAS to the left, adding to cost-push inflation. In the long run, a smaller labour force reduces productive capacity, shifting LRAS left, so the economy reaches full employment at a lower output and inflationary pressure rises.



However, the effect on inflation depends on several factors. If domestic supply of the goods subject to the tariff is price elastic, domestic firms can increase output to replace imports at little extra cost, so prices rise less. If consumers switch to domestic goods, the effect depends on how competitive domestic producers are. Imports are only part of the price index, so a 20% tariff raises the overall price level by much less than 20%, and the effect may be a one-off rise in the price level rather than continuing inflation. If foreign firms absorb part of the tariff by cutting their prices, the effect is smaller still.

The effect of the immigration restrictions depends on whether there is a domestic labour force willing and able to do the jobs. If unemployment is high, firms can recruit local workers and wages need not rise much. Fewer immigrants also means less consumer spending and less demand for housing, so AD grows more slowly, reducing demand-pull inflation, which partly offsets the cost-push effect. Similarly,

Question number

the tariff increases (X – M) as imports fall, raising AD and adding demand-pull inflation, unless other countries retaliate and exports fall.

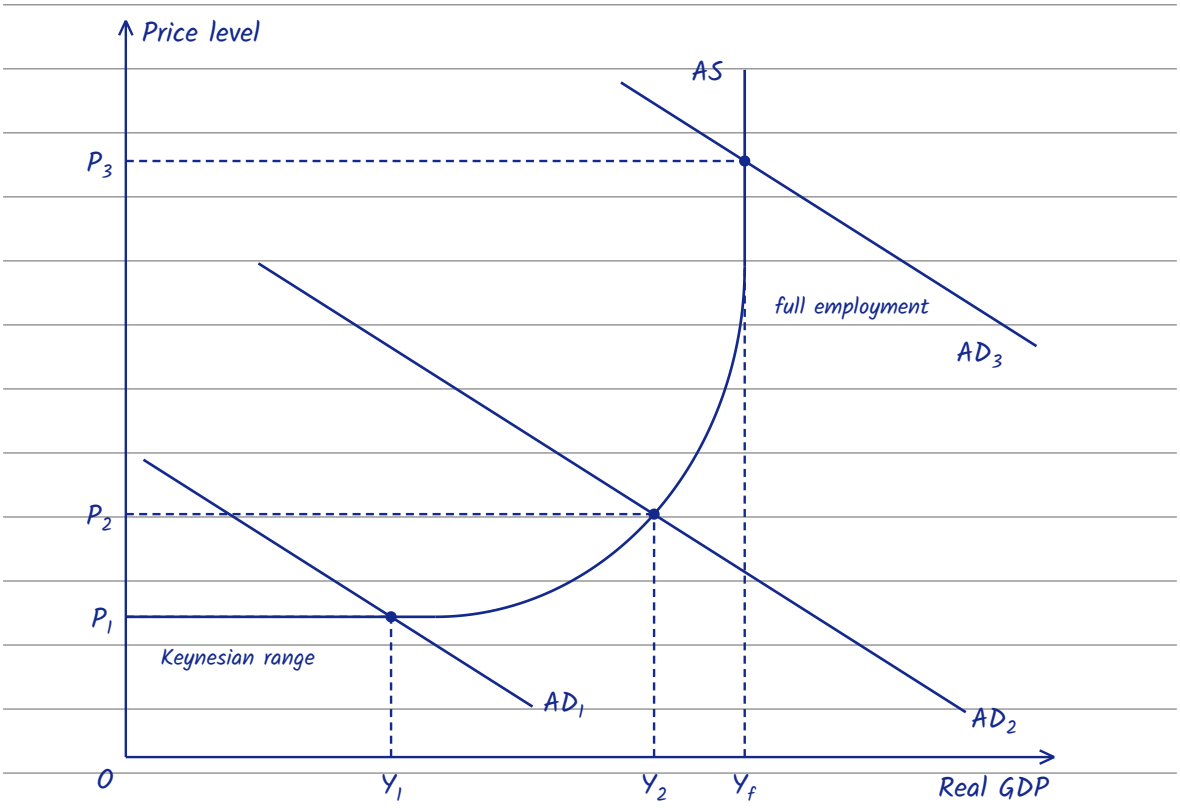
The overall effect also depends on the level of AD and how close the economy is to full employment. With spare capacity, rises in costs may be absorbed in profit margins. Near full employment, labour shortages and higher import prices are likely to cause a wage-price spiral, especially if expectations of inflation rise.

In conclusion, both policies are likely to increase the rate of inflation, mainly through cost-push effects on SRAS. The size of the increase depends on the elasticity of domestic supply, the availability of domestic workers, the share of imports in spending and the level of aggregate demand, and the immigration policy may partly offset its own cost-push effect by reducing demand.

5 A budget deficit occurs when government spending is greater than tax revenue in a year, and the deficit is financed by borrowing. Economic growth is an increase in real GDP over time; actual growth uses spare capacity, while potential growth is an increase in productive capacity. An increase in the budget deficit, through higher government spending or lower taxes, is expansionary fiscal policy.

In the circular flow of income, government spending is an injection and taxation is a withdrawal. A larger deficit means injections rise relative to withdrawals, so aggregate demand increases: higher G raises AD directly, and lower taxes raise disposable income and consumption. Through the multiplier, $k = 1 \div (1 - MPC)$ in a simple economy, the final rise in income is greater than the initial injection, as each person's spending becomes someone else's income. In the diagram, with spare capacity, AD shifts right from AD1 to AD2 and real GDP rises from Y1 to Y2, so the economy grows and unemployment falls.

Question number



If the deficit finances supply-side spending on education, training, health or infrastructure, it also raises the quantity and quality of factors of production, shifting LRAS to the right and increasing potential growth. Higher incomes may also cause investment to rise through the accelerator, which adds to the capital stock.

However, a higher deficit will not always lead to growth. If the economy is at or near full employment, as at Yf, AS is vertical, so the increase in AD from AD2 to AD3 only raises the price level to P3, causing demand-pull inflation rather than growth; the Phillips curve shows lower unemployment is achieved at the cost of higher inflation. The size of the effect depends on the multiplier. If the marginal propensities to save, tax and import are high, much of the extra income leaks out, so the rise in GDP is small, and spending on imports worsens the current account. Crowding out may occur. To finance the deficit, the government borrows, increasing the demand for loanable funds and raising interest rates, so private investment and consumption fall, offsetting the rise in G. Expectations also

Question number

matter: if households expect higher taxes in the future to repay the debt, they may save more now (Ricardian equivalence), and if firms lose confidence in the government's finances, investment may fall. A large and rising national debt raises interest payments, which have an opportunity cost, and may lead to a fall in the exchange rate or a credit rating downgrade.

It also depends on how the deficit arises and what it is spent on. A deficit caused by automatic stabilisers in a recession reflects falling income rather than causing growth. Spending on wasteful projects, or on current spending such as subsidies to inefficient firms, does little for long-run growth, and there are time lags before spending takes effect. The multiplier mainly affects the short run, while long-run growth requires increases in productive capacity.

In conclusion, an increase in the budget deficit can lead to economic growth, especially in a recession with spare capacity, a high MPC and low interest rates, and when it funds investment in infrastructure and human capital. It will not always do so: near full employment, with large leakages, crowding out or negative expectations, the result may be inflation, higher debt and little or no growth.