Cambridge Assessment International Education

Cambridge International AS & A Level

ECONOMICS **9708/22**

Paper 2 AS Level Data Response and Essays **February/March 2023**

2 hours

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.

DC (CE/CT) 315935/2
© UCLES 2023

[Turn over

stemup.co.uk

Section A

Answer this question.

1 Inflation in the United States (US)

Prices are rising much faster than expected across the world's economies, including the US.

Content removed due to copyright restrictions.

© UCLES 2023

stemup.co.uk

Content removed due to copyright restrictions.

Some economists believe that interest rates in the US may need to rise from 0.25% to as high as 4.50% to 'cool' the economy and reduce the rate of inflation and that this is likely to happen sooner rather than later.

Source: Adapted from 'Boom and doom?', a briefing on inflation, The Economist 10 July 2021.

(a) Using Fig. 1.1, compare the US inflation rate between July and December 2020 with that between January and June 2021. [2]

(b) Using the information provided, explain what is meant by 'the US government's economic stimulus package'. [2]

(c) Consider the extent to which an increase in interest rates could reduce the rate of inflation in the US. [4]

(d) With the help of an AD/AS diagram, assess whether the rising inflation rate in the US has been caused by changes to the demand side or changes to the supply side of the economy. [6]

(e) Assess the possible consequences of a rising rate of inflation for a country such as the US. [6]

© UCLES 2023

stemup.co.uk

Section B

Answer **one** question.

EITHER

2 **(a)** Explain the functions of price in resource allocation **and** consider the importance of these functions in relation to the potential effectiveness of a market economy. [8]

(b) Assess whether all market economies should become mixed economies. [12]

OR

3 **(a)** Explain the possible economic reasons for inequality of income **and** consider whether inequality of income can benefit an economy. [8]

(b) With the help of a diagram, assess whether the introduction of a minimum price in a market can be justified. [12]

Section C

Answer **one** question.

EITHER

4 **(a)** Explain the circular flow of income in a closed economy **and** consider the extent to which the circular flow of income changes as an economy becomes an open economy. [8]

(b) Assess whether the consequences of economic growth for an economy are always positive. [12]

OR

5 **(a)** With the help of a diagram, explain what is meant by an appreciation of a floating exchange rate **and** consider whether a country can only benefit from the appreciation of its currency. [8]

(b) Assess whether supply-side policies are the most effective way to correct a deficit on the current account of the balance of payments of an economy. [12]

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 2023

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

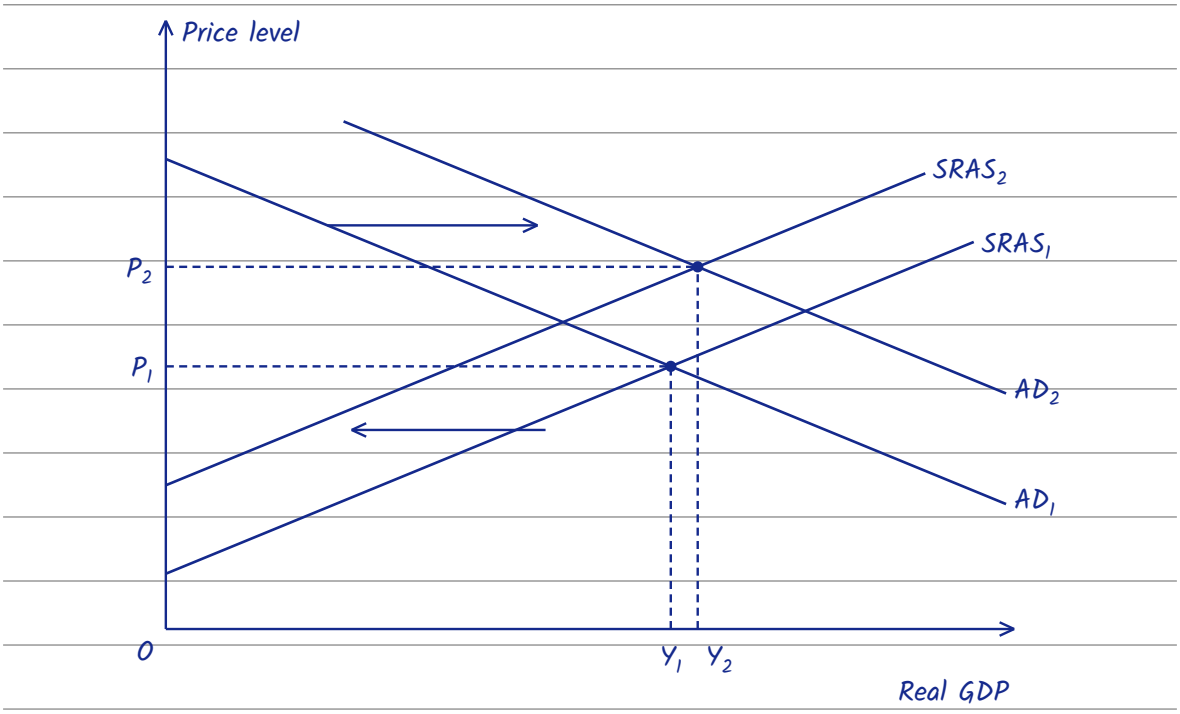
1(a) Between July and December 2020 the US inflation rate was fairly stable, rising only slowly from about 1.0% to 1.4%. Between January and June 2021 it rose much more rapidly, from 1.4% to 5.4%, so the rate of increase was far greater in the second period.

1(b) An economic stimulus package is expansionary fiscal policy: higher government spending and/or lower taxes designed to increase aggregate demand. In the US the government spent an additional US$6 trillion in 2020 to 2021, giving a budget deficit of 12.7% of GDP by mid-2021.

1(c) A rise in interest rates from 0.25% towards 4.50% increases the cost of borrowing and the reward for saving, so consumption and investment fall. Higher rates may also attract hot money and cause the US dollar to appreciate, which reduces net exports and makes imports cheaper, reducing imported cost-push inflation. The overall fall in AD reduces demand-pull pressure, so the rate of inflation falls. However, the effect is limited if borrowing is interest inelastic or confidence stays high, and it depends on how far inflation is demand-pull: rising shipping costs are a cost-push cause that higher interest rates cannot remove. So rates could reduce inflation only partly.

Question number

1(d)



On the demand side, the US$6 trillion stimulus and a budget deficit of 12.7% of GDP increased government spending and household incomes, shifting AD from AD_1 to AD_2 and pulling the price level up from P_1 towards P_2 (demand-pull inflation).

On the supply side, the rising cost of shipping goods and shortages of inputs raised firms' costs of production, shifting SRAS from $SRAS_1$ to $SRAS_2$, which also raises the price level (cost-push inflation).

The scale of the stimulus suggests demand was the main driver, as spending rose quickly while output was still recovering. However, supply bottlenecks were a global problem, which explains why prices rose faster than expected across the world's economies, not only in the US. In conclusion it was a combination of both, and the data is insufficient to say precisely which had the greater impact.

1(e)

Rising inflation can harm the US. Exports become less price competitive, so the current account may worsen. Firms face menu costs and households shoe leather costs, and uncertainty makes planning and investment harder. Income is redistributed: people on fixed incomes and savers lose as their real incomes and savings fall, while borrowers gain.

Question number

There may also be benefits. The real value of debt falls, encouraging borrowing, and if prices rise faster than costs, firms' profits rise, which may lead them to employ more workers. Asset values such as property may also rise.

The consequences depend on how high inflation goes and whether it is anticipated: a rise from 1.4% to 5.4% is significant, but if wages and contracts adjust, the costs are smaller. They also depend on whether US inflation is higher than its trading partners' and on the price elasticity of demand for US exports. On balance the negative consequences are likely to outweigh the positive ones if the rise is unexpected and persistent, which is why interest rates may rise sooner rather than later.

2(a) In a market economy the price mechanism allocates resources through three functions. The rationing function: when a good is scarce, its price rises, so only those willing and able to pay obtain it, and demand is reduced to match the limited supply. The signalling function: changes in price transmit consumers' preferences to producers; a rise in price signals that consumers want more of a good. The incentive function: a higher price raises potential profit, encouraging firms to move resources into producing that good, so supply extends.

These functions matter because they let a market economy answer what, how and for whom to produce without central planning. If demand for electric cars rises, the higher price signals this preference, the higher profits give firms an incentive to switch resources from petrol cars, and the price rations the cars until supply catches up. This makes the economy responsive to consumer sovereignty and promotes allocative efficiency, while competition encourages productive efficiency.

However, the functions only work effectively when markets are competitive, information is perfect and there are no externalities. Rationing by price is based on ability to pay, so it can be inequitable, and the signals ignore external costs and benefits and cannot provide public goods. On balance, the signalling and incentive

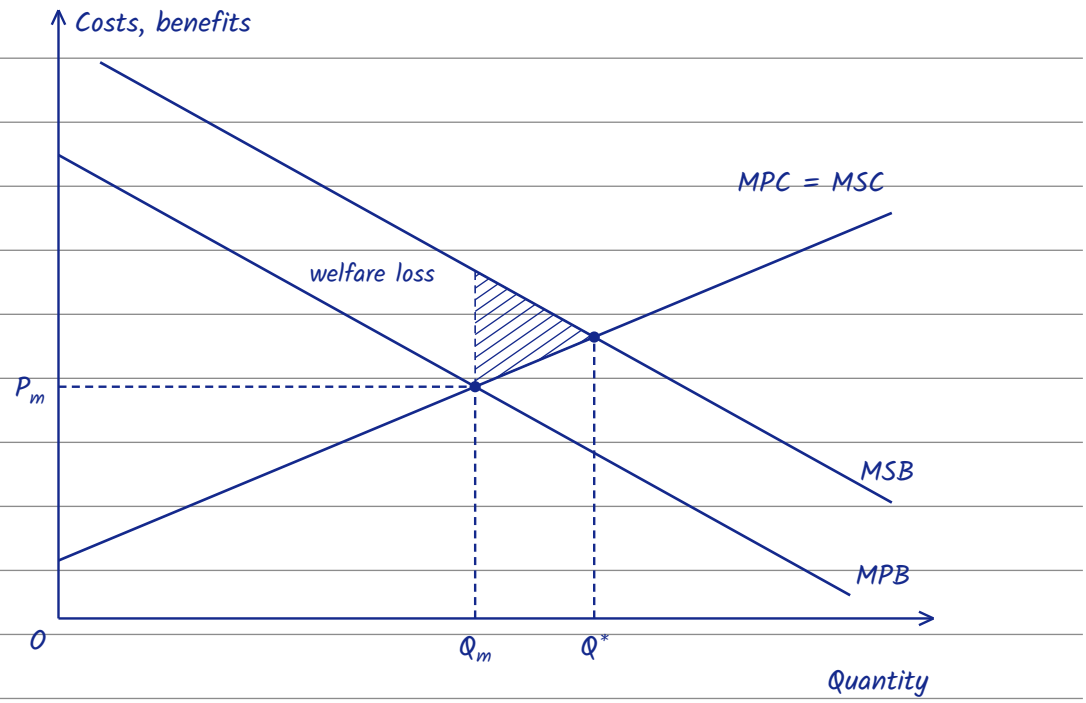
Question number

functions are the most important for the effectiveness of a market economy, but because of market failure they make it only potentially, not always, effective.

2(b) A market economy allocates resources through the price mechanism, with private ownership and little or no government intervention. A mixed economy combines the price mechanism with a significant role for the government, which provides some goods and services and regulates markets.

There are arguments for remaining a market economy. Decisions are based on demand and supply, so the signalling and incentive functions of price direct resources to what consumers want. Competition and the profit motive encourage firms to cut costs and innovate, so production is more efficient, and consumers and producers acting in their own self-interest maximise their own welfare.

Government intervention can lead to government failure: officials lack information, policies may be driven by political aims, and taxes create disincentives and an opportunity cost.



However, market economies suffer from market failure, which is why they should become mixed. Public goods such as street lighting and defence are non-rival and

Question number

non-excludable, so the free rider problem means they are not provided at all. Merit goods such as education and healthcare are under-consumed because consumers ignore the external benefits and lack information: in the diagram the market produces at Q_m, where MPB = MPC, below the socially optimum Q^*, where MSB = MSC, creating the shaded welfare loss. Demerit goods such as cigarettes are over-consumed, and some markets, such as agricultural markets, have prices that are too unstable. A government can provide public goods, subsidise or provide merit goods, tax demerit goods and use buffer stocks, moving output towards the social optimum. It can also redistribute income to reduce inequality.

Whether all market economies should become mixed depends on the extent of market failure compared with the risk of government failure. Where public goods are missing, the case is overwhelming, since the market provides none at all. For merit and demerit goods, intervention is justified only if the government has enough information and the benefits exceed the costs, including the opportunity cost of taxation. The degree of mixing also matters: a minimal role limited to public goods and regulation keeps most of the efficiency of the market. In conclusion, all market economies should become mixed to some extent, because no pure market provides public goods, but the government's role should be limited to correcting clear market failures.

3(a) Income inequality is the unequal distribution of income between households. One reason is differences in employment status: the unemployed rely on low transfer payments, while those in work earn wages. Another is differences in skills, qualifications and experience: highly skilled workers such as surgeons are scarce and highly productive, so the demand for them is high and their supply inelastic, giving high wages, while unskilled workers are in plentiful supply and earn low wages. Incomes also differ between full-time and part-time workers, between the public and private sectors, and with the amount of transfer payments and the

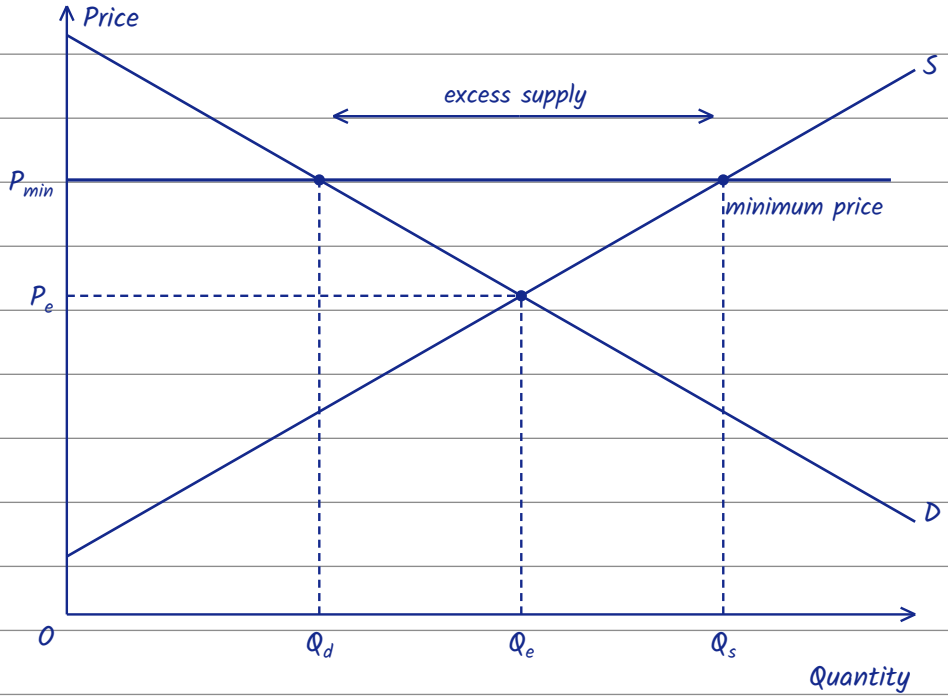
Question number

level and type of taxation; regressive taxes widen inequality.

Inequality can benefit an economy because wage differentials act as an incentive: workers are encouraged to work harder, raising productivity, and to retrain and reskill to reach better-paid jobs. The chance of high profits encourages enterprise and risk taking, which can raise investment and economic growth.

However, large inequality can demotivate those on the lowest incomes, increase crime and social tension, and require higher government spending on transfer payments, with an opportunity cost. Low-income households also spend a higher proportion of income, so extreme inequality limits demand. Overall, some inequality can benefit an economy by providing incentives, but only up to a point; beyond that the costs outweigh the benefits.

3(b) A minimum price is a legally set price, set above the equilibrium price, below which a good cannot be sold. In the diagram the free market equilibrium is at P_e and Q_e.



When the minimum price is set at P_{min}, quantity demanded contracts to Q_d and quantity supplied extends to Q_s, creating excess supply of $Q_s - Q_d$. Only Q_d is actually bought.

Question number

There are good reasons for a minimum price. For a demerit good such as alcohol, a higher price reduces consumption from Q_e to Q_d, reducing the negative externalities from over-consumption such as health costs and crime. Because it is a price floor, it mainly raises the price of the cheapest, strongest products that heavy drinkers buy most. For agricultural goods, a guaranteed minimum price protects the incomes of farmers from unstable prices, encouraging them to stay in production and secure food supplies. A minimum wage is a similar policy that protects low-paid workers.

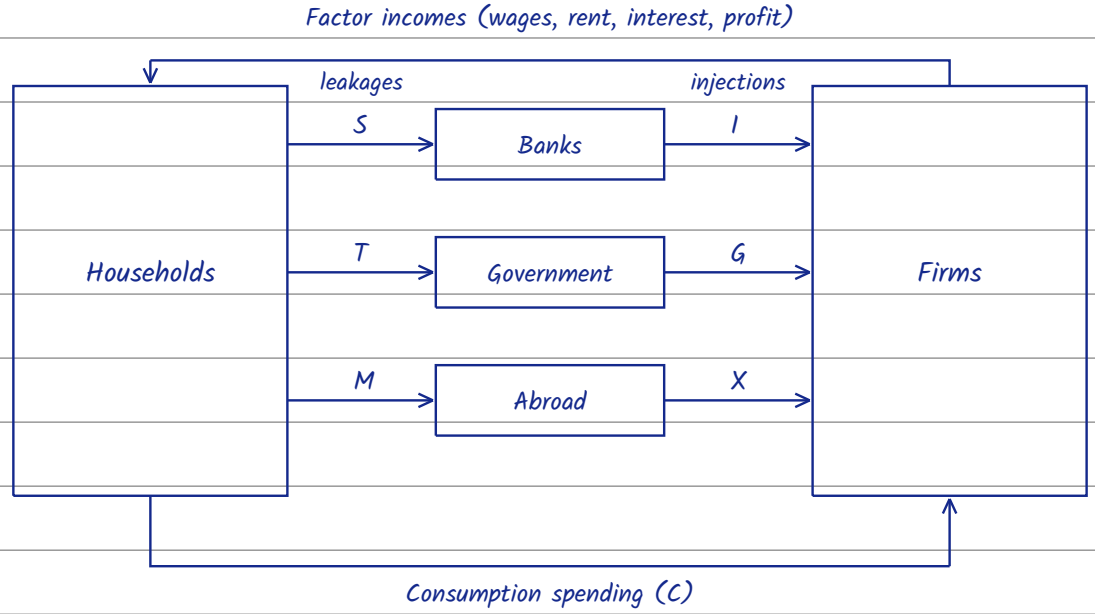
However, there are disadvantages. The excess supply must be dealt with: in agriculture the government may have to buy the surplus, which is expensive and has an opportunity cost, and the surplus may be wasted or destroyed. Guaranteed prices remove the pressure of competition, so producers may become less efficient. Consumers pay higher prices, which is regressive because it hits low-income households most. A minimum price may also be ineffective: if demand is price inelastic, as for addictive goods, consumption falls only slightly, and illegal markets may develop where the good is sold below P_{min}. If it is set below the equilibrium price it has no effect at all.

Whether a minimum price is justified depends on the market and the level at which it is set. It is most justified for demerit goods where the aim is to reduce consumption and the surplus is simply not produced, and less justified in agriculture where surpluses require costly storage. It depends too on price elasticity of demand and on enforcement. Alternatives such as indirect taxes raise revenue, and direct income support for farmers avoids surpluses. In conclusion, a minimum price can be justified for demerit goods with relatively elastic demand, if set at the right level and enforced, but in most other markets the costs of excess supply mean other policies are better.

4(a) The circular flow of income shows how income flows between sectors of the

Question number

economy. In a closed economy there is no international trade, so it involves households, firms and the government. Households supply factors of production to firms and receive factor incomes; they spend this income on firms' goods and services (consumption). Some income leaks out as savings (S) and taxes (T), while injections come from investment (I) and government spending (G). Equilibrium income is where injections equal leakages: $I + G = S + T$. If injections exceed leakages, income rises until they are equal again.



As the economy becomes open, it participates in international trade, so a fourth sector, the foreign sector, is added. Exports (X) are an injection, because foreign spending flows into domestic firms, and imports (M) are a leakage, because domestic spending flows abroad. Equilibrium now occurs where $I + G + X = S + T + M$.

The extent of the change depends on how important international trade is. For a very open economy such as Singapore, where exports and imports are larger than GDP, the circular flow changes greatly: income becomes highly sensitive to world demand, and a large leakage into imports reduces the size of the multiplier. For an

Question number

economy where trade is a small share of GDP, the change is much smaller. In conclusion, the structure changes in every case, but the size of the change depends on the importance of net trade.

4(b) Economic growth is an increase in real GDP. Actual growth is an increase in output using existing resources, while potential growth is an increase in productive capacity, shown by an outward shift of the PPC or LRAS.

Growth has many positive consequences. Higher real output raises real incomes and the standard of living, as people can consume more goods and services. As output rises, the derived demand for labour increases, so unemployment falls, and higher incomes may reduce poverty and possibly income inequality. Growth raises tax revenues without raising tax rates, so the government can spend more on public services such as education and healthcare, or reduce a budget deficit. Rising demand also increases business confidence, leading to more investment, which increases capacity further and creates a virtuous circle of growth.

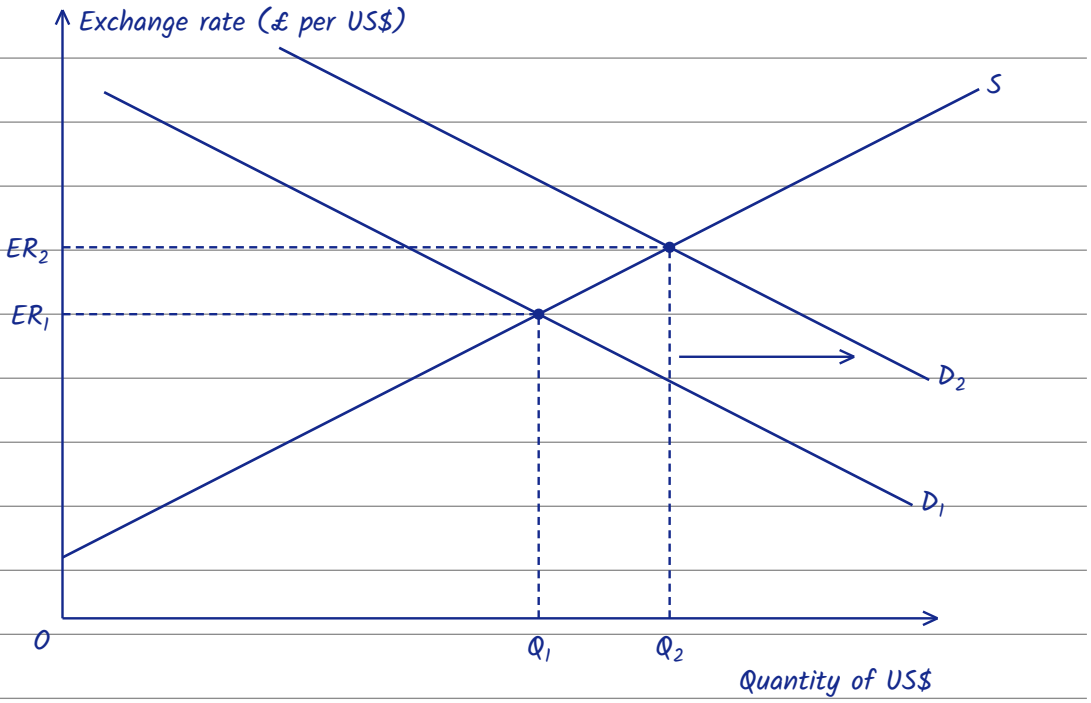
However, the consequences are not always positive. Growth may use up non-renewable resources and damage the environment through air and water pollution and climate change, which reduces quality of life and future growth. The benefits may be unequally shared: owners of capital and skilled workers gain more, so inequality can widen. People may work longer hours and have less leisure time, so welfare may not rise as much as GDP. Growth may involve a shift to capital-intensive production, causing structural unemployment for some workers. If AD grows faster than productive capacity, it causes demand-pull inflation and may worsen the current account as imports rise.

Whether growth is positive depends on its type and how it is achieved. Growth driven by rising productive capacity is non-inflationary, whereas demand-led growth near full capacity is inflationary. It depends on whether growth is sustainable, meeting today's needs without reducing the ability of future generations to meet

Question number

theirs. There may also be a short-term cost: resources used to make capital goods reduce consumer goods today, even though they raise long-term growth. Finally, it depends on whether the government redistributes the gains through taxes and transfers. In conclusion, the consequences of growth are usually positive overall, but not always, since unsustainable, unequal or inflationary growth can reduce welfare.

5(a) In a floating exchange rate system the exchange rate is set by the demand for and supply of a currency on the foreign exchange market. An appreciation is a rise in the value of a currency against another currency, so one unit buys more foreign currency.



In the diagram an increase in demand for US dollars, for example because foreigners buy more US exports, or because higher US interest rates attract hot money inflows, shifts demand from D_1 to D_2. The exchange rate rises from ER_1 to ER_2, an appreciation. A fall in supply of the currency, if residents buy fewer imports, would have the same effect.

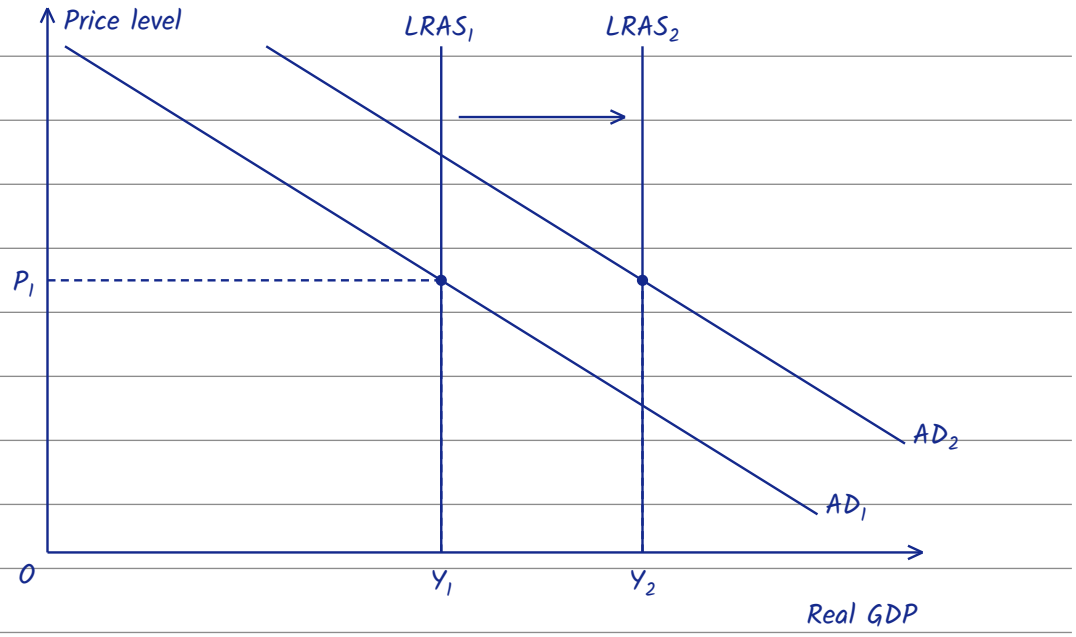
An appreciation brings benefits. Imports of finished goods become cheaper, raising

Question number

consumers' real incomes, and imported raw materials and components fall in price, cutting firms' costs. This reduces cost-push inflationary pressure, and competition from cheaper imports forces domestic firms to become more efficient. However, exports become more expensive in foreign currency and so less competitive, while domestic goods lose out to imports. Export volumes fall, so jobs may be lost in export and import-competing industries and the current account may worsen.

So a country does not only benefit. The net effect depends on the state of the economy: during high inflation an appreciation helps, but during a recession or with a current account deficit it is harmful. It also depends on how far export and import demand respond to price. In conclusion, a country can benefit from an appreciation, but it is not only beneficial.

5(b) A current account deficit occurs when the value of imports of goods and services, plus outflows of primary and secondary income, exceeds the value of exports and income inflows. Supply-side policies aim to increase the productive capacity and efficiency of the economy.



Supply-side policies include improvements in education and training, making labour markets more flexible, reducing the power of trade unions, privatisation and

Question number

deregulation to increase competition, and lower taxes or subsidies to encourage investment. If successful, they raise productivity, shifting LRAS from $LRAS_1$ to $LRAS_2$, so real GDP rises from Y_1 to Y_2 without a rise in the price level. Lower unit costs and better quality make the country's products more internationally competitive, so exports rise and imports fall, correcting the deficit. This tackles the cause of the deficit permanently, if the cause is a lack of competitiveness.

However, supply-side policies are a long-run solution: improvements in education and training may take many years to affect productivity, so they cannot quickly correct a large deficit. They can be costly, involving considerable government spending with an opportunity cost, and success is uncertain; labour market reforms may also increase inequality.

Other policies can work faster. Contractionary fiscal or monetary policy reduces AD and so spending on imports (expenditure dampening), but this also reduces growth and raises unemployment. A depreciation of the currency makes exports cheaper and imports dearer (expenditure switching), but may cause imported inflation. Protectionism, such as tariffs, cuts imports quickly but invites retaliation and reduces efficiency.

Whether supply-side policies are the most effective depends on the cause of the deficit. If it is due to low productivity and uncompetitive industries, they are the only lasting solution. If it is due to excessive demand in a boom, demand-side policies are more appropriate. In conclusion, supply-side policies are the most effective in the long run, but a combination with short-term demand-side measures is usually needed to correct a deficit quickly.