Cambridge Assessment International Education

Cambridge International AS & A Level

ECONOMICS **9708/22**

Paper 2 AS Level Data Response and Essays **February/March 2025**

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.

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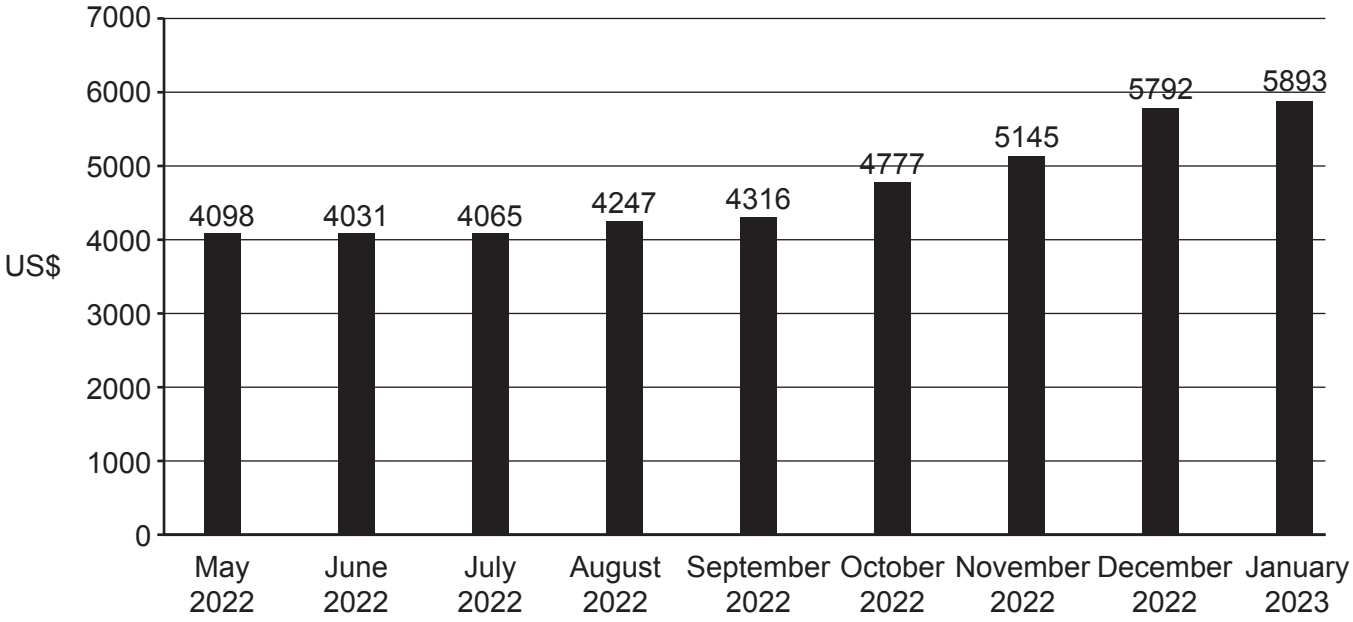
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Section A

Answer all parts of Question 1.

1 **A global olive oil shortage**

Almost every kitchen in the United States (US) will pay the price for the intense heat and drought in Europe in the summer of 2023. Olive harvests in key countries were so poor that some analysts were concerned that there would be a shortage of olives to produce enough olive oil to meet the demand around the world. The dramatic reduction in output of this typical household cooking oil has resulted in the consumer price of olive oil rising between 30% and 50% across the US. At the same time, the US dollar has fallen in value against Europe's main currency (the euro), further adding to the price increase of olive oil.



Source: ycharts.com

Fig. 1.1 World price of olive oil, May 2022 to January 2023 (US$/tonne)

In Spain, olive production was forecast to be down by about 50% in 2023, which would make it the lowest since 2008. The wide-scale drought conditions across Southern European and other Mediterranean countries significantly impacted on the global supply of olives, since about 80% of global output comes from these regions.

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Source: DG Agri olive oil dashboard

Fig. 1.2 European Union (EU) production of olive oil, 2017 to 2023

Restaurants and commercial kitchens are desperately trying to find a solution to the olive oil shortage, but alternatives are scarce too. Sunflower oil is a top choice for an olive oil replacement, but the conflict in Ukraine, which is the biggest producer of sunflower oil, has made this substitute increasingly difficult to access.

Previously, the US would look to other countries for olive oil, but supply chains have been severely disrupted. Olive oil does not store very well as its quality deteriorates over time, so increasing stocks does not solve the problem. It is perhaps unsurprising that analysts are recommending investment into new methods of storage that will preserve the quality of the olive oil. This would allow stocks to increase after good harvests to help stabilise prices during future periods of poor harvests.

Source: Adapted from: Olive oil prices climbing after heat, drought in Europe leads to poor harvest, Foxweather, 21 February 2023

(a) Using Fig. 1.1, calculate the percentage change in the world price of olive oil between May 2022 and January 2023. [2]

(b) Some restaurants and commercial kitchens are using sunflower oil as an alternative to olive oil.

Explain how economists could measure the impact of rising olive oil prices on the demand for sunflower oil. [2]

(c) With reference to Fig. 1.2 and the help of a demand and supply diagram, consider the possible impact of increased olive oil prices in 2023 on consumer surplus. [4]

(d) Assess the likely impact of increasing stocks of olive oil on the price and quantity of olive oil traded in the future. [6]

(e) Assess the extent to which a fall in the value of the US dollar against the euro is likely to affect US imports of olive oil from the EU. [6]

Section B

Answer **one** question.

EITHER

2 **(a)** With the help of a production possibility curve (PPC) diagram, explain the terms scarcity and choice **and** consider the extent to which every choice has an equal opportunity cost. [8]

(b) Assess whether the allocation of resources in a market economy is always beneficial. [12]

OR

3 **(a)** Explain the difference between a public good and a private good (economic good) **and** consider the extent to which a beach could be described as a public good. [8]

(b) Assess the extent to which a subsidy is likely to be the best method to increase the consumption of a merit good. [12]

Section C

Answer **one** question.

EITHER

4 **(a)** With the help of a formula, explain **two** reasons for an improvement in the terms of trade **and** consider the extent to which an improvement in the terms of trade will benefit an economy. [8]

(b) Assess the extent to which the consequences of free trade are always positive for an economy. [12]

OR

5 **(a)** With the help of an AD/AS diagram, explain what is meant by an expansionary fiscal policy **and** consider the extent to which an expansionary fiscal policy will always increase the level of aggregate demand. [8]

(b) Assess the extent to which supply-side policy is the best method to reduce the rate of inflation. [12]

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

Question number

Section A, plus every Section B and Section C question answered

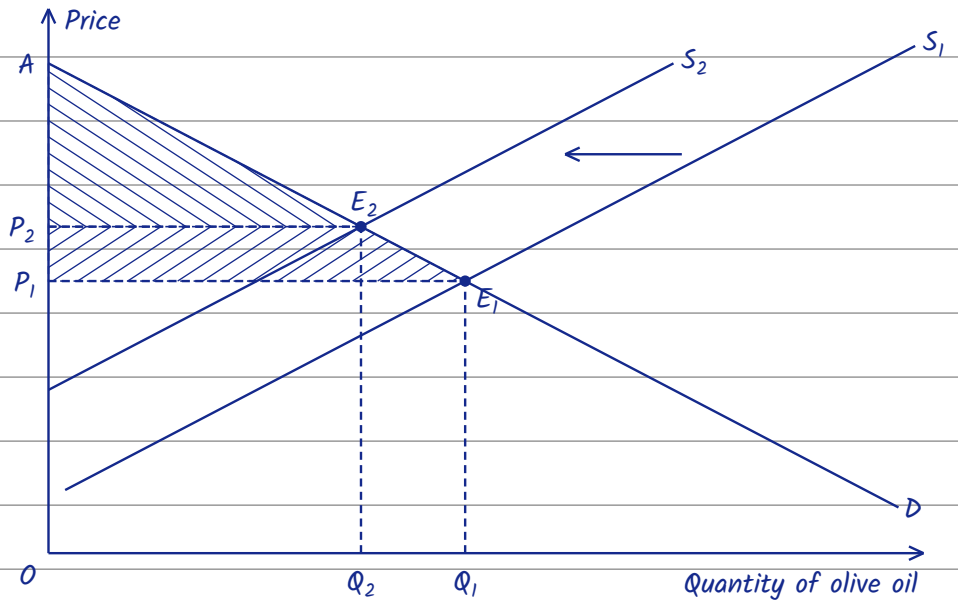
1(a) % change = (5893 – 4098) ÷ 4098 × 100

= 1795 ÷ 4098 × 100 = 43.8%

The world price of olive oil rose (increased) by 43.8%.

1(b) Economists would use cross elasticity of demand (XED) = % change in quantity demanded of sunflower oil ÷ % change in the price of olive oil. Because the two oils are substitutes, the coefficient would be positive: the higher the value, the closer the substitutes and the bigger the impact on sunflower oil demand.

1(c) Consumer surplus is the difference between the price consumers are willing to pay and the price they actually pay, the area under the demand curve and above the price. Fig. 1.2 shows EU production of olive oil falling in 2023, with Spain's output down by about 50%, so supply shifts left from S1 to S2.

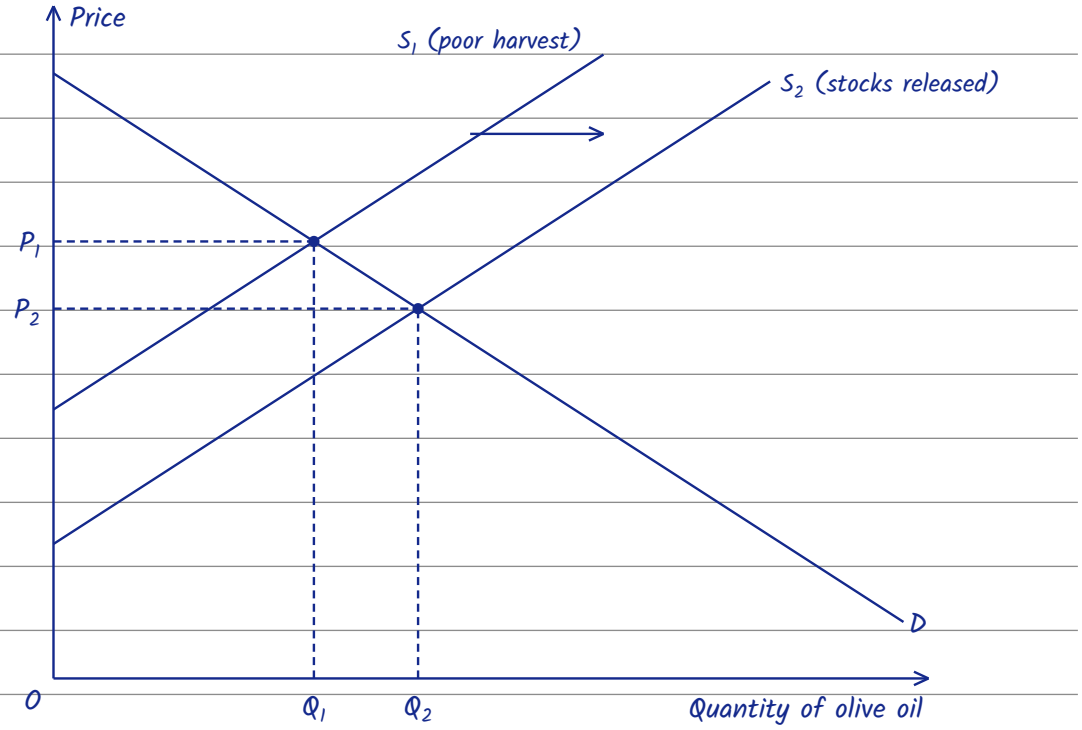


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Price rises from P1 to P2 and quantity falls from Q1 to Q2. Consumer surplus falls from area AP1E1 to the smaller shaded triangle AP2E2; the shaded strip P2P1E1E2 is lost, because consumers pay more and buy less, so the gap between what they are willing to pay and the market price is reduced.

However, the size of the fall depends on PED. Olive oil has few substitutes, as sunflower oil is also scarce, so demand is price inelastic: quantity falls little but consumers pay much more, so a large part of the consumer surplus is transferred to producers rather than lost.

1(d) Increasing stocks means storing olive oil after good harvests and releasing it after poor harvests (a buffer stock). When stocks are being built up, oil is taken off the market, so supply falls, the price rises and the quantity traded falls in that year. In a poor harvest, as in 2023, stocks are released, shifting supply to the right from S1 to S2:



The price falls from P1 to P2 and quantity traded rises from Q1 to Q2. This reduces price volatility and stabilises incomes for producers and costs for

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restaurants.

However, the impact may be limited. Storage is costly, and if new storage methods are expensive producers may need to charge higher prices to cover these costs. The extract says olive oil quality deteriorates over time, so consumers may see stored oil as lower quality and switch to alternatives, reducing the quantity traded. Stocks can only be built after good harvests, and repeated droughts across the Mediterranean, where 80% of output comes from, may mean stocks run out.

Overall, increasing stocks is likely to make future prices more stable rather than lower on average, raising quantity in poor years and reducing it in good years. The effect depends on how much can be stored without losing quality and at what cost, so it is likely to be modest.

1(e) A fall in the value of the US dollar against the euro (a depreciation) means each dollar buys fewer euros. EU olive oil priced in euros therefore becomes more expensive in dollars for US importers, adding to the 30% to 50% price rise already caused by poor harvests. This may reduce US demand for, and imports of, EU olive oil, and importers may switch to olive oil from outside the EU or to substitutes such as other cooking oils.

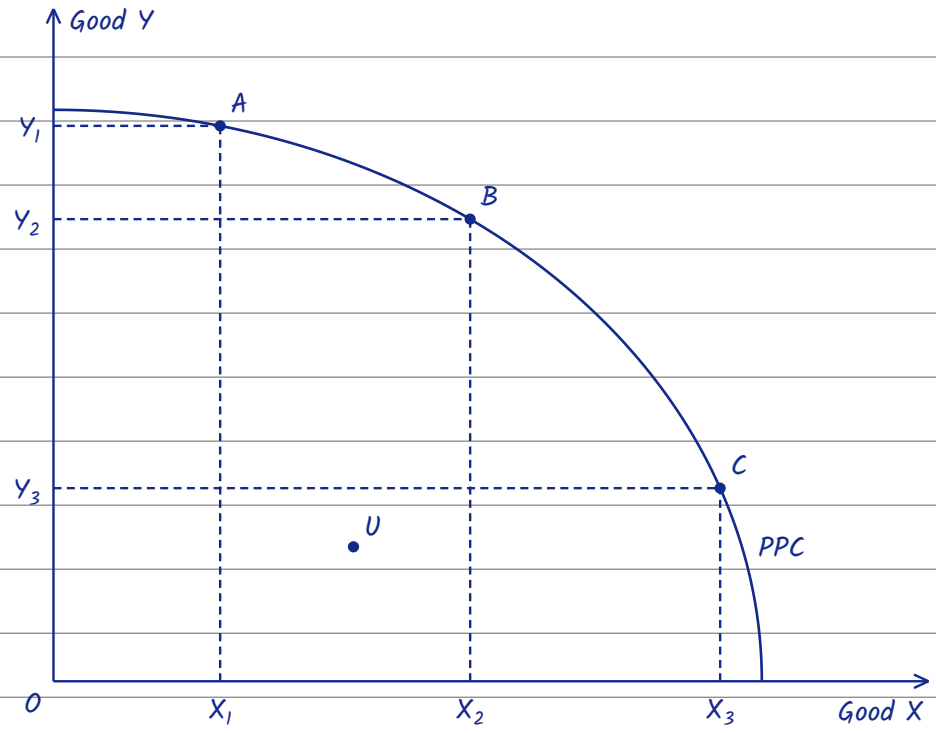
However, the effect may be limited. Demand for olive oil is likely to be price inelastic, as it is a typical household cooking oil with few substitutes: sunflower oil is hard to access because of the conflict in Ukraine, and about 80% of world supply comes from Southern Europe and the Mediterranean, so there are few other sources. Import volumes may fall only slightly while the dollar value of imports rises. If the depreciation is short term, importers may use contracts or stocks to wait for the dollar to recover.

Overall, the depreciation is likely to cause only a small fall in the volume of US imports of olive oil from the EU, because demand is inelastic and alternatives are scarce, but the dollar spending on these imports is likely to rise. The fall in volume

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will be greater the longer and larger the depreciation.

2(a) Scarcity is the basic economic problem: resources (factors of production) are limited but wants are unlimited. Because of scarcity, choices must be made about what to produce, and every choice has an opportunity cost, the next best alternative forgone. A production possibility curve (PPC) shows the maximum combinations of two goods an economy can produce with all its resources fully and efficiently employed.



Scarcity is shown by the PPC itself: points beyond it cannot be reached. Choice is shown by choosing a point on the curve, such as A, B or C, and the opportunity cost of producing more X is the movement along the PPC and the Y given up. On this concave PPC the opportunity cost is not equal: moving from A to B gives up Y1 – Y2 of Good Y, but the same increase in X from B to C gives up a much larger Y2 – Y3. This is because resources are not equally suited to both goods, so increasing opportunity cost applies.

If resources were equally suited to both goods, the PPC would be a straight line

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with a constant gradient, so every choice would have an equal opportunity cost. Also, at a point inside the curve such as U, where there are unused resources, more of both goods can be produced with no opportunity cost. Therefore every choice has an equal opportunity cost only in the unusual case of a straight-line PPC with full employment; in most economies the PPC is concave, so opportunity cost rises.

2(b) A market economy allocates resources through the price mechanism, with private ownership and the profit motive deciding what, how and for whom to produce. The market allocation has major benefits. Prices act as signals and incentives: if consumers want more of a good, its price rises, making it more profitable, so resources move towards it. This means resources go to the goods consumers value most, giving allocative efficiency. Competition forces firms to cut costs, giving productive efficiency, lower prices and more choice. The profit motive encourages investment, innovation and invention, which raises living standards and economic growth over time.

However, the market allocation is not always beneficial because of market failure. Public goods, such as street lighting, are non-excludable, so the free rider problem means they are not provided at all. Merit goods such as education are under-consumed because of information failure and positive externalities, while demerit goods such as cigarettes are over-consumed. Negative externalities, such as pollution, are ignored by producers, so too much is produced at too low a price. Firms may also gain monopoly power, restricting output and raising prices. Finally, resources go to those who can pay, so income and wealth inequality may widen and basic needs of the poor may not be met.

Whether the outcome is beneficial depends on the market. In competitive markets for most consumer goods, such as clothing, the market works well and government intervention could cause government failure. Where there are large externalities, public goods or monopoly power, the market allocation is harmful. It also depends

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on value judgements about fairness: an efficient outcome may still be seen as unequal.

In conclusion, the allocation of resources in a market economy is not always beneficial. It is usually efficient for private goods in competitive markets, but because of market failure and inequality some government intervention, as in a mixed economy, is needed for the best overall outcome.

3(a) A private good is rival, meaning one person's consumption reduces the amount available to others, and excludable, meaning people who do not pay can be prevented from consuming it, for example a sandwich. A public good is non-rival, so consumption by one person does not reduce availability to others, and non-excludable, so non-payers cannot be stopped from benefiting, for example a lighthouse. The difference is that private goods can be charged for and provided by the market, while public goods suffer from the free rider problem and are not provided by the market.

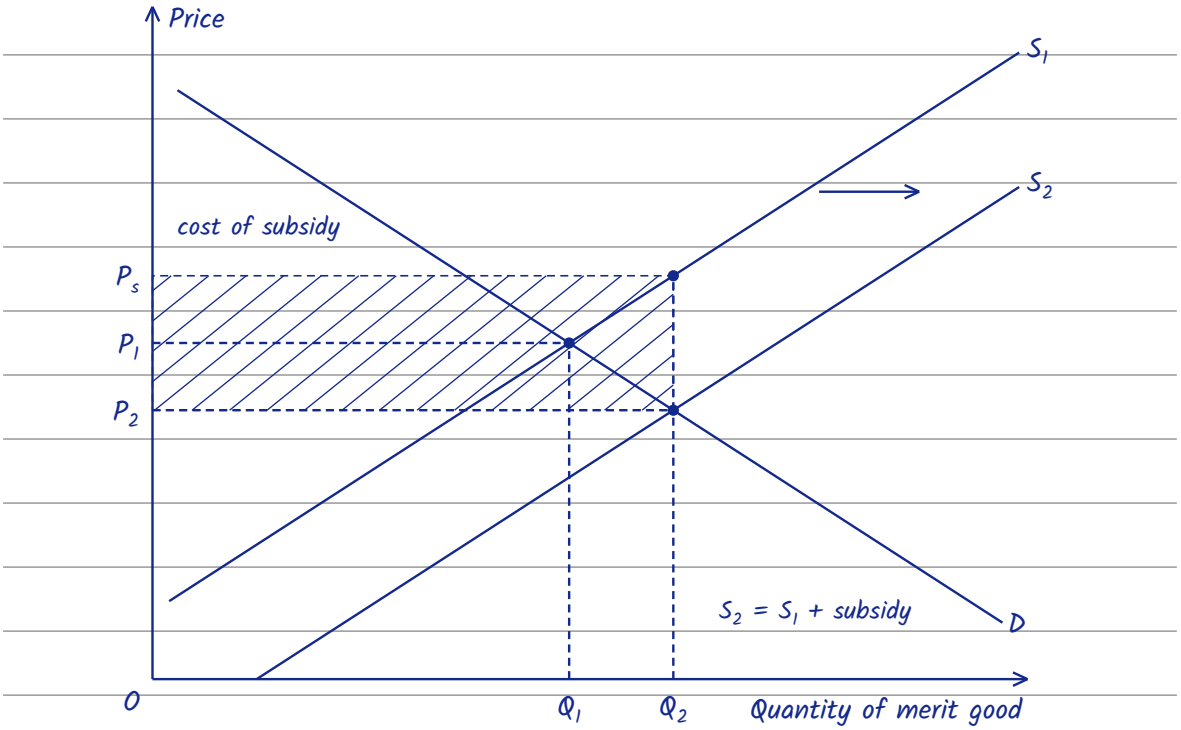
A beach is non-excludable in many cases: an open public beach has many access points, so it would be very costly to stop people entering and charge them. It is also non-rival when it is quiet, as one more visitor does not reduce the space for others. However, on a busy summer day the beach becomes congested, so it is rival: each extra visitor reduces the space and enjoyment of others. Some beaches can be made excludable, for example private hotel beaches with fences and an entry charge.

Therefore a beach is best described as a quasi-public good: it has some features of a public good but is not purely non-rival and non-excludable. The extent depends on how crowded it is and whether access can be controlled, so a remote public beach is close to a public good, while a fenced hotel beach is a private good.

3(b) A merit good, such as education or healthcare, is a good that is more beneficial

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than consumers realise and creates positive externalities, so it is under-consumed in a free market because of information failure. A subsidy is a payment by the government to producers that lowers their costs of production.



The subsidy shifts supply to the right from S1 to S2, so the price falls from P1 to P2 and quantity consumed rises from Q1 to Q2, closer to the socially optimal level. It works quickly and does not remove consumer choice, and producers receive Ps per unit, encouraging them to supply more.

However, subsidies have problems. The shaded area is the cost to the government, which has an opportunity cost, such as less spending on other services, or higher taxes and borrowing. If demand is price inelastic, quantity rises only slightly, and if the cause of under-consumption is lack of information, a lower price may not change behaviour. Subsidies may go to people who would have consumed anyway, firms may become dependent and inefficient, and it is hard to know the correct size of the subsidy or when to remove it.

Other methods may be better. Providing information, such as campaigns on the benefits of vaccination, tackles the cause of under-consumption and shifts demand

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to the right, at low cost, although it is slow and people may ignore it. Direct provision free at the point of use, as in state schools, removes the price barrier completely, but is very costly and may lead to queues. Regulation, such as compulsory schooling to age 16, guarantees consumption but removes choice and needs enforcement.

In conclusion, a subsidy is likely to be the best method when demand is price elastic and the main barrier is price, as for low-income households. Where the problem is information failure, information provision or regulation is more effective. The best approach is usually a combination: a subsidy alongside better information, so both the price and the perceived benefit encourage consumption.

4(a) The terms of trade measure the rate at which a country's exports exchange for its imports:

terms of trade = (index of export prices ÷ index of import prices) × 100

The terms of trade improve when this index rises, meaning export prices rise relative to import prices. One reason is an increase in world demand for a country's exports, such as higher demand for oil, which raises export prices. A second reason is an appreciation of the exchange rate, which raises the foreign currency price of exports and lowers the domestic price of imports. Lower import prices, for example from cheaper raw materials, would also improve the index.

An improvement means each unit of exports buys more imports. Imported goods become relatively cheaper, so consumers can buy more, raising living standards, and firms' imported raw materials cost less, reducing cost-push inflation. However, if the improvement comes from higher export prices, foreign buyers may buy fewer exports. If demand for exports is price elastic, export revenue falls and imports rise, so the current account may move into deficit and export industries may cut jobs,

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raising unemployment.

Therefore whether an improvement benefits the economy depends on its cause and on PED. If it is due to rising world demand for exports with inelastic demand, export revenue rises and the economy clearly benefits. If it is due to an appreciation and demand for exports is elastic, it may harm the current account and employment, so it is not always beneficial.

4(b) Free trade is international trade without government restrictions such as tariffs, quotas or subsidies.

Free trade has many positive consequences. Countries can specialise according to comparative advantage, producing goods at the lowest opportunity cost and trading them, so world output rises and resources are used more efficiently. Consumers gain lower prices and greater choice, as goods are imported from the lowest-cost producers. Firms gain access to larger markets and can benefit from economies of scale, and foreign competition forces domestic firms to become more efficient and innovative. Higher exports raise aggregate demand, so economic growth and employment increase, and tax revenue rises, improving public finances.

However, the consequences are not always positive. Domestic industries that cannot compete with cheaper imports may close, causing structural unemployment, especially in regions that depend on one industry, and workers may lack the skills to move to new jobs. Infant industries in developing economies may never grow without protection. Imports may rise faster than exports, leading to a current account deficit and lower domestic growth. Specialisation can make an economy over-reliant on other countries, for example for food or energy, as supply chain disruption in the olive oil and sunflower oil markets showed. Firms abroad may also dump goods below cost, and there may be environmental costs from greater transport.

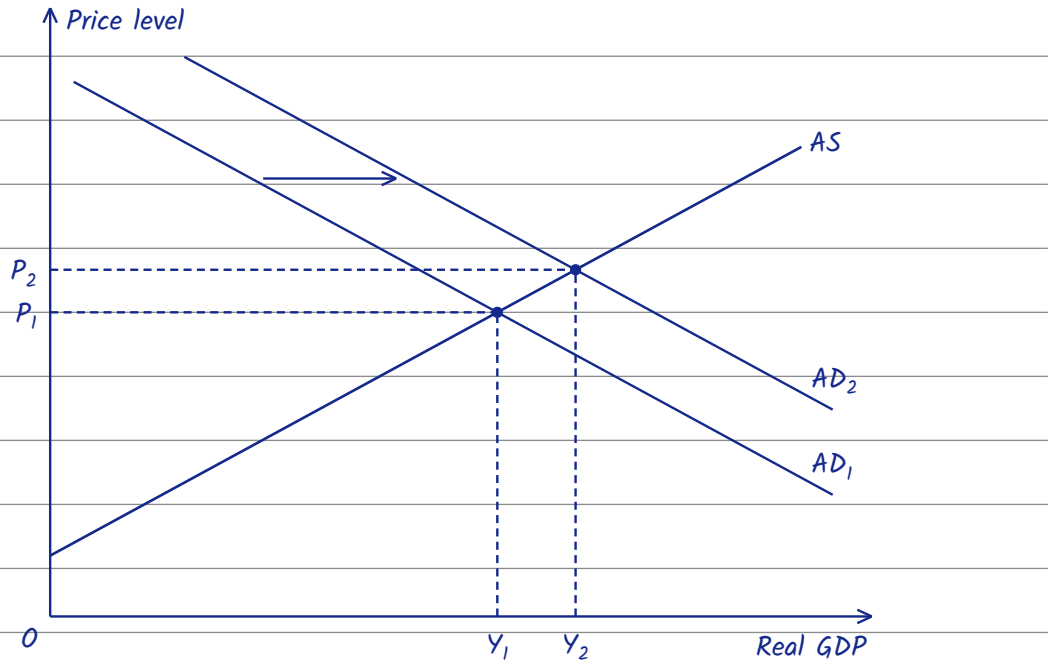
The outcome depends on the economy. A country with suitable factor endowments

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and competitive industries, such as a developed manufacturing exporter, is likely to gain overall. A low-income economy dependent on a few primary products may face falling terms of trade and volatile export earnings. It also depends on whether trading partners also remove barriers, and on whether the government helps displaced workers retrain. The gains are often spread widely across consumers, while the losses fall on particular groups.

In conclusion, the consequences of free trade are not always positive. In the long run free trade usually increases total output and living standards, but in the short run it creates losers, particularly in uncompetitive industries and developing economies, so the overall effect depends on the stage of development and on supporting policies.

5(a) Aggregate demand (AD) is the total demand for an economy's goods and services at a given price level: $AD = C + I + G + (X - M)$. Expansionary fiscal policy is an increase in government spending and/or a cut in tax rates, usually increasing the budget deficit, to increase AD.



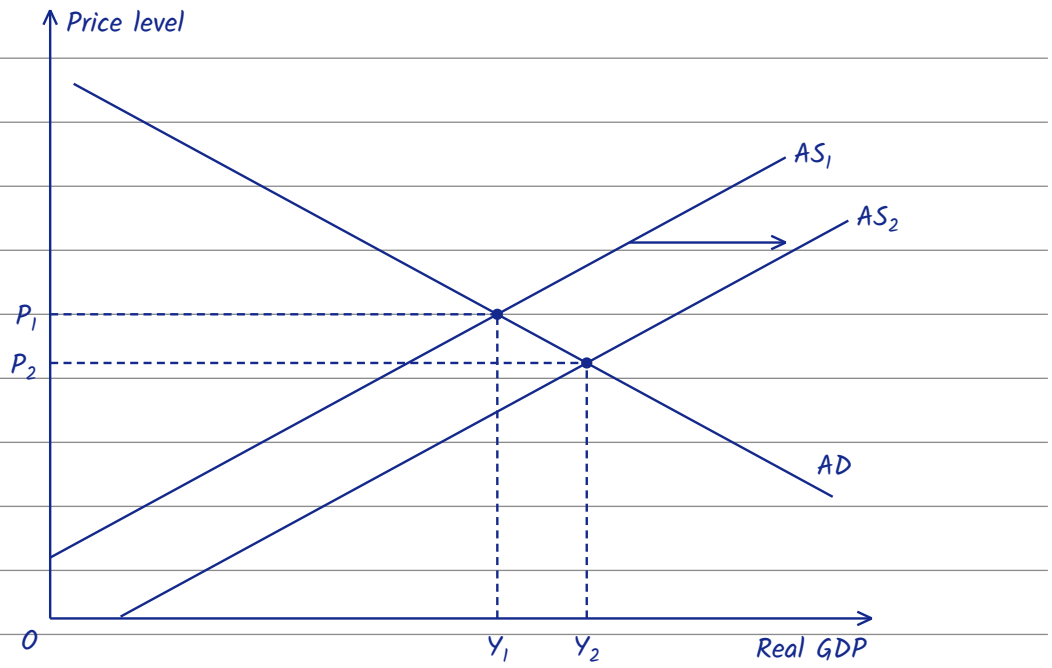
For example, a cut in income tax increases households' disposable income, so

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consumption (C) rises. Higher government spending (G) on infrastructure directly increases a component of AD. AD shifts right from AD1 to AD2, so real GDP rises from Y1 to Y2 and the price level from P1 to P2. Through the multiplier, the final increase in AD is larger than the initial injection.

However, expansionary fiscal policy does not always increase AD. If confidence is low, households may save a tax cut rather than spend it. Higher government borrowing may raise interest rates and crowd out private investment, offsetting the rise in G. Some of the extra income may be spent on imports, reducing the multiplier. Therefore expansionary fiscal policy will usually increase AD, but by less than expected, and it is most effective when confidence is high and there is spare capacity.

5(b) Inflation is a sustained increase in the general price level. Supply-side policy aims to increase the productive capacity of the economy, shifting aggregate supply to the right.



Supply-side policies include spending on education and training, which raises labour productivity; better healthcare, which improves the quality of the workforce; and

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investment in infrastructure such as road, rail and broadband links, which lowers firms' costs. As AS shifts right from AS1 to AS2, the price level falls from P1 to P2 while real GDP rises from Y1 to Y2. Unlike other policies, this reduces inflation and increases output and employment at the same time, and it tackles both cost-push and demand-pull inflation in the long run.

However, supply-side policies have drawbacks. There are significant time lags: training workers or building infrastructure takes years, so they cannot reduce inflation quickly. They have a high opportunity cost and may increase government debt. Their success depends on the quality of education and training, and firms may lack retained profit to train staff. If inflation is caused by excess demand now, supply-side policy will be too slow.

Alternatives may work faster. Contractionary monetary policy, raising interest rates, increases the cost of borrowing and the reward for saving, so consumption and investment fall and AD shifts left, reducing demand-pull inflation within one to two years. However, it reduces output and raises unemployment, and is less effective against cost-push inflation, such as higher oil prices. Contractionary fiscal policy, raising taxes or cutting government spending, also reduces AD, but is unpopular and has time lags too.

In conclusion, supply-side policy is the best method to reduce inflation in the long run because it lowers prices without reducing growth. However, it is not the best for an immediate problem: demand-pull inflation is better tackled in the short run by monetary policy. A combination of monetary policy now and supply-side policy for the long term is most effective.