Cambridge Assessment International Education

Cambridge International AS & A Level

ECONOMICS **9708/42**

Paper 4 A Level Data Response and Essays **February/March 2024**

2 hours

6878291308

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

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

INFORMATION

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

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

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Section A

Answer all parts of Question 1.

1 **French electricity prices**

In 2022 the French government ordered a large electricity company, partly owned by the state, to sell more electricity at lower prices than its rivals. The company said this would have a negative impact on its profits and result in a decrease in the value of the company's shares owned by the private sector.

Competitors in electricity supply in France are allowed to buy power from this company at a 40% discount due to its monopoly position. The government instructed the company to increase the amount they must sell to competitors at the discounted market price.

The government also cut taxes on electricity to try to keep the increase in prices for households and small businesses to 4%, rather than the expected 35%, without any government action.

As well as producing electricity in France, the company owns nuclear power stations and gas-fired power stations in the UK and supplies 11% of the UK's electricity.

A global shortage of natural gas supplies caused a crisis, pushing up electricity prices. Much electricity is produced in gas-fired power plants. The situation was worsened by faults in the electricity-producing nuclear power plants in both the UK and France.

In January 2022 alone, a further five nuclear power plants in France were forced to close. That meant that 18 of the 56 plants had closed; a worrying proportion for a company that derives 70% of its electricity output from nuclear power. The plants were old. Corrosion caused safety fears and the closures restricted supplies.

Previously, the nuclear power plants put France in a strong self-sufficient position of which other European countries can only dream. The UK, for example, has to import expensive gas to produce electricity, where the price rise was expected to be not 35%, as in France, but 56%. However, the cost to the French government of reducing the electricity price affected its ability to finance renewable energy projects as well as build a new generation of nuclear reactors.

The government claimed the benefit was that they rescued millions of households from the prospect of excessive rises in electricity prices.

Source: The Daily Telegraph, 15 January 2022

(a) Identify what caused the rise in the electricity prices and explain whether it can be concluded from the article that the price rise was an example of market failure. [5]

(b) Is there any evidence in the article that the French government's decisions will increase competition or efficiency in the energy market? [4]

(c) **(i)** Distinguish between equality and equity. [3]

(ii) Consider whether the actions of the French government on electricity prices might be thought to increase either equality or equity for consumers and producers. [8]

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Section B

Answer **one** question.

EITHER

2 With the help of a diagram, assess the effectiveness of a government's intervention in the price mechanism to address the causes of climate change. [20]

OR

3 The introduction of a trade union into a perfectly competitive labour market will always lead to higher wage levels and a higher level of unemployment.

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

Section C

Answer **one** question.

EITHER

4 With the help of a diagram, assess the effectiveness of government policies which might be used to reduce cost-push inflation. [20]

OR

5 Globalisation will help to achieve economic growth in high-income economies and this will automatically improve living standards.

Evaluate this statement. [20]

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

Question number

Answers for paper 9708/42 (all questions answered)

1(a) The rise in electricity prices was caused by a global shortage of natural gas supplies, since much electricity is produced in gas-fired power plants, made worse by faults in nuclear power plants in France and the UK: by January 2022, 18 of France's 56 plants had closed because of corrosion and safety fears, restricting supply.

Market failure occurs when the price mechanism fails to take account of all the costs and benefits of production and consumption, so resources are not allocated in the way that maximises social welfare, resulting in allocative inefficiency ($P \neq MC$).

It cannot be concluded that the price rise was a market failure. A fall in supply leading to a higher price is the price mechanism working normally: the higher price rations scarce electricity and signals the shortage. The article gives no evidence of external costs or benefits being ignored or of allocative inefficiency, so there is no evidence of market failure.

1(b) There is some evidence of greater competition: competitors can buy power from the company at a 40% discount, and the government increased the amount the company must sell to them, so rivals get cheaper electricity and can compete more strongly with the dominant firm.

There is no evidence of greater efficiency. The cost of holding down prices reduced the government's ability to finance renewable energy projects and a new generation of nuclear reactors, so investment falls. The nuclear plants are old and closing, so France is less self-sufficient, and the fall in the company's monopoly profits leaves

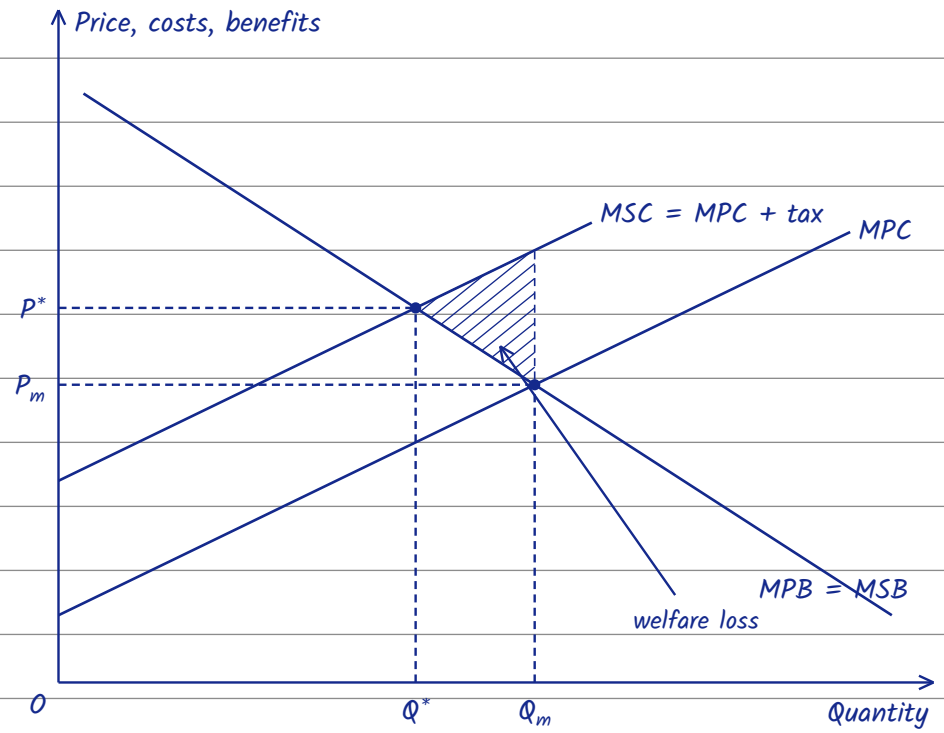
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	less to spend on investment and innovation, reducing dynamic efficiency.
	Conclusion: some evidence of increased competition, but no evidence of increased efficiency.
1(c)(i)	Equality means an equal distribution of income and wealth between people in society, so everyone receives the same share, which can be measured objectively, for example with a Gini coefficient of 0.
	Equity means fairness or justice in the distribution of income and wealth. It is a normative idea: a fair distribution need not be equal, for example people who work harder or take more risks may fairly earn more.
1(c)(ii)	Producers: the government ordered the company to sell more electricity at lower prices, which it says will reduce its profits and the value of its privately owned shares. There is nothing to show that these price changes are linked to any idea of fairness for producers, so producer equity is unlikely to be affected. However, equality between producers may increase: small rival firms get cheaper electricity at the 40% discount at the expense of the large company, which narrows the gap between them. On the other hand, the cut in electricity taxes may benefit the large company more than its smaller rivals, as it sells most of the electricity, so the effect on equality between producers remains uncertain.
	Consumers: the tax cut kept the price rise for households and small businesses to 4% rather than the expected 35%. This could be seen as increasing consumer equity, because it is thought fair to protect households from an excessive rise in the price of an essential good, which takes a larger share of the income of poorer households. Equality may also increase, because millions of households were rescued from large price rises. However, both rich and poor consumers benefit from the lower price, and richer households, which use more electricity, gain the most in absolute terms, so it is not clear that consumer equality improves.

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Overall, the actions may increase equity for consumers, but the effect on equality for consumers and for producers is uncertain.

2 Climate change is caused mainly by emissions of greenhouse gases such as carbon dioxide from burning fossil fuels in production (power stations, factories) and consumption (driving cars, heating homes). These emissions are a negative externality: a cost imposed on third parties, such as damage from floods, droughts and rising sea levels, that is not paid by the producer or consumer. The marginal social cost (MSC) is therefore greater than the marginal private cost (MPC) by the marginal external cost.

In a free market, firms produce where MPB = MPC, at output Qm and price Pm in the diagram. The socially optimal output is Q^*, where MSB = MSC. So the market overproduces by $Qm - Q^*$, and for each unit between Q^* and Qm the social cost exceeds the social benefit, giving the shaded welfare loss. This is market failure because the price mechanism does not include the external cost of emissions.



The government can intervene in the price mechanism to correct this. An indirect

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tax (a carbon tax) equal to the marginal external cost at Q^* shifts the MPC curve up to MSC. The price rises to P^* and output falls to Q^*, so the externality is internalised, the polluter pays and the welfare loss is removed. The tax also gives a continuing incentive to switch to cleaner methods, and the revenue can fund renewable energy. Similarly, subsidies to renewable energy or electric cars lower the price of substitutes, so demand for fossil fuels falls. Tradable pollution permits use the market too: a cap is set on total emissions and firms that cut emissions cheaply can sell permits, so emissions are reduced at the lowest cost, as in the EU Emissions Trading System. A minimum price for carbon permits or fuel can also be used to keep the price high enough to reduce use.

However, the effectiveness of these measures is limited. First, the link between a particular activity and climate change is very hard to establish, and the external cost is extremely difficult to measure in money, since the damage is global and falls on future generations. So the government cannot set the tax at exactly the right level: too low and overproduction remains, too high and output falls below Q^*. Second, demand for fossil fuels is price inelastic in the short run, as households and firms have few substitutes, so a tax raises prices much more than it cuts emissions. Third, a tax is regressive, hitting low-income households who spend a larger share of income on fuel, and it raises firms' costs, which can reduce profits and employment. Minimum prices may also only be partly effective and harm firms. Fourth, climate change is global: if one country taxes carbon, production may move to countries without taxes (carbon leakage), so world emissions may not fall.

Alternatives outside the price mechanism may sometimes give more precise control, for example regulation and bans, such as banning new petrol cars or coal power stations, which fix the quantity directly, although they are costly to monitor and give no incentive to cut emissions below the limit.

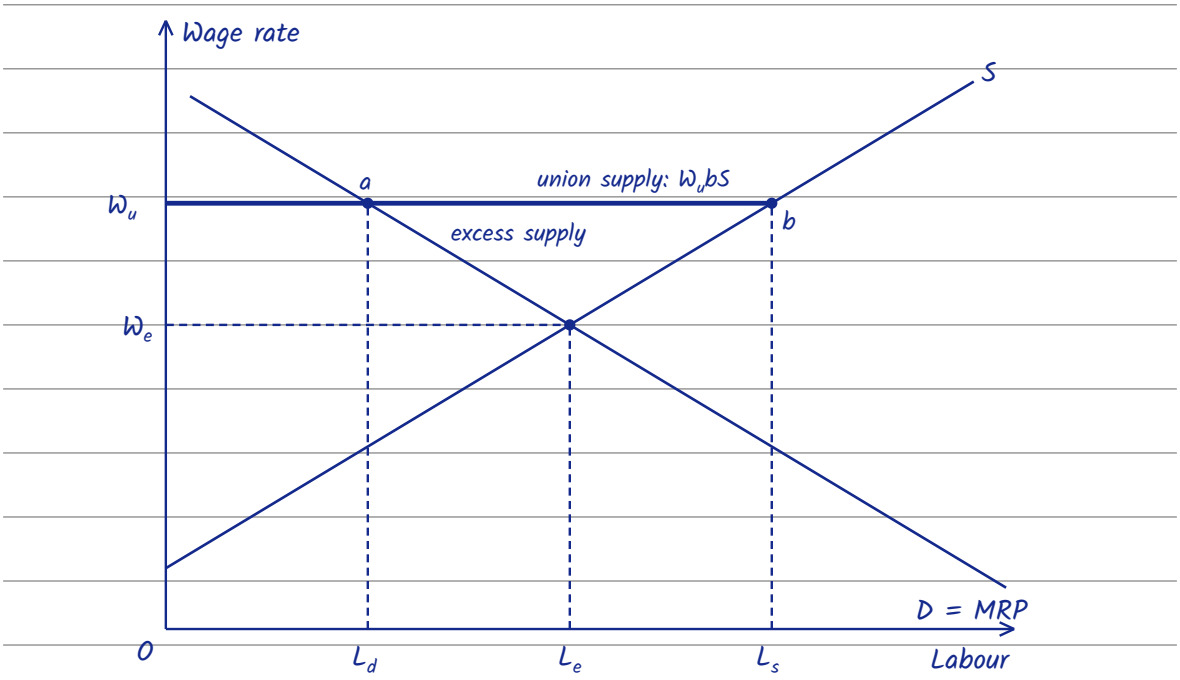
In conclusion, intervention in the price mechanism, especially carbon taxes and

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tradable permits, is an effective way to address the causes of climate change in the long run because it changes incentives and reduces emissions at low cost. Its effectiveness depends on accurate measurement of the external cost, on the price elasticity of demand and on international co-operation. It is most effective when combined with regulation and subsidies for green alternatives, rather than used alone.

3 A perfectly competitive labour market has many small employers and many workers, so no individual can influence the wage. Workers are homogeneous, there is perfect information and free movement of labour, and the wage is set where the market demand for labour (the MRP curve) equals the market supply. Each firm is a wage taker facing a horizontal supply curve at that wage and employs workers until MRP = wage. In the diagram the equilibrium is wage We and employment Le. A trade union is an organisation of workers that aims to improve the pay and conditions of its members through collective bargaining, and to protect jobs. Introducing a union replaces many individual sellers of labour with one seller, which can bargain for a wage above the market rate, backed by the threat of strike action.

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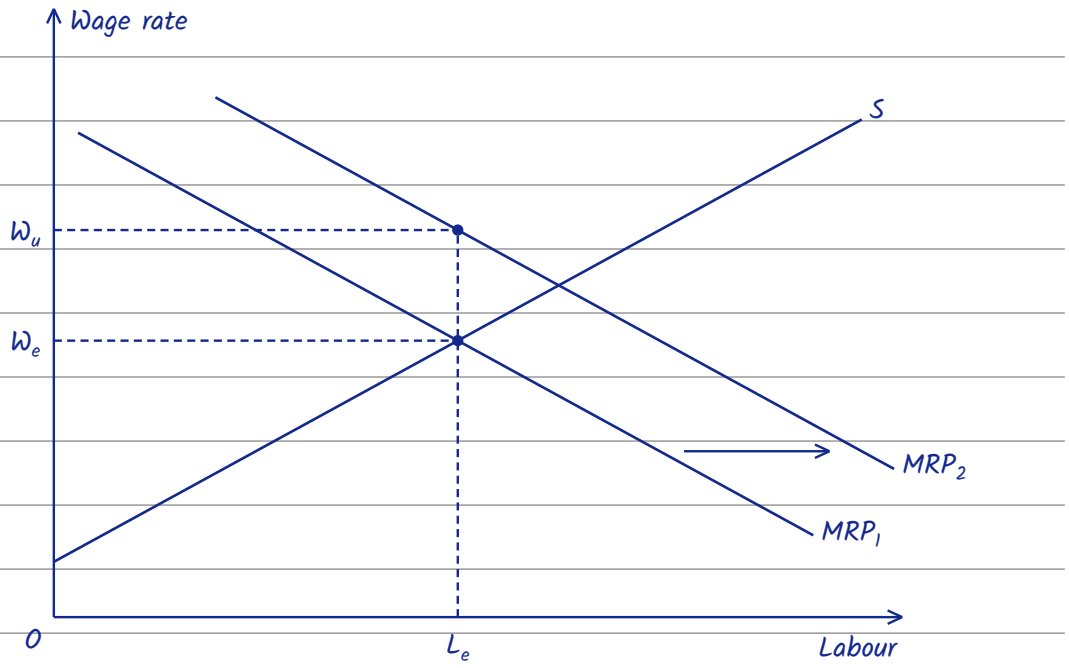
If the union negotiates a wage Wu above We, no worker can be employed below Wu, so the supply curve becomes WuabS: horizontal at Wu up to point b. Employers now demand only Ld, where MRP = Wu, while Ls workers want to work. Employment falls from Le to Ld, and there is excess supply of labour of Ls – Ld, so unemployment rises. In this case the statement is correct: the union raises wages and unemployment.

However, it will not "always" happen. The size of the fall in employment depends on the elasticity of demand for labour. If demand for labour is inelastic, because labour is a small share of total costs, demand for the product is inelastic, or there are few substitutes for labour, a higher wage causes only a small fall in employment. If capital is easy to substitute for labour, demand is elastic: the higher wage makes machines relatively cheaper, and firms substitute capital for labour, causing a large rise in unemployment. This depends on the existing proportion of capital to labour in the industry. The elasticity of supply of labour also matters, since it determines how many extra workers want jobs at Wu.

Second, a union can raise productivity. It may provide training, improve communication between workers and managers and reduce labour turnover. Higher

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productivity raises MRP from MRP1 to MRP2 in the second diagram. The union can then gain the higher wage Wu with no fall in employment, which stays at Le, so wages rise without unemployment rising. However, productivity may also be raised by replacing workers with machines, which would reduce employment.



Third, the union may not be able to raise wages at all. In a perfectly competitive market with many employers, a union may be too weak to bargain, its membership may be low, or laws may restrict strikes. A union may also choose to accept a lower wage to protect jobs, so it bargains for job security rather than pay. In addition, if the demand for the product is rising strongly, the demand for labour shifts right and employment may rise even with a higher wage.

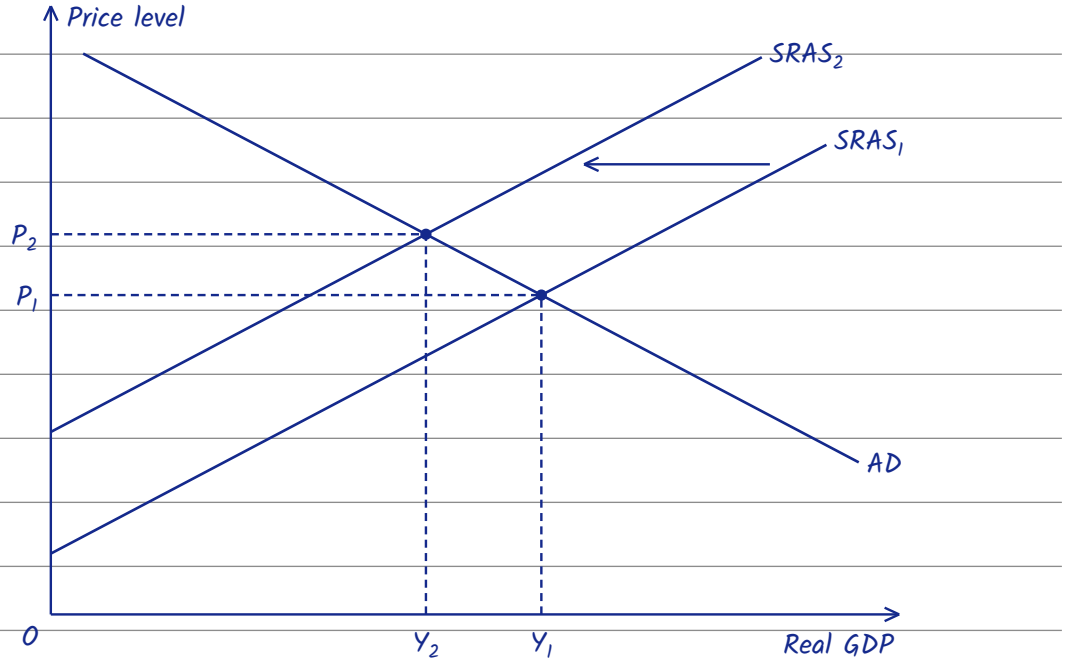
In conclusion, the statement is only partly correct. Introducing a trade union into a perfectly competitive labour market is likely to raise the wage, and if it does so above equilibrium with no change in productivity or demand, it will cause unemployment, the size of which depends on the elasticities of demand for and supply of labour. But the word "always" is wrong: if the union raises productivity, if demand for labour is rising, or if it is too weak to bargain, wages can rise with no increase in unemployment, or wages may not rise at all.

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4

Inflation is a sustained rise in the general price level, measured by a consumer price index. It can be demand-pull, when aggregate demand grows faster than aggregate supply, or cost-push, when rising costs of production push up prices. Inflation causes problems: it reduces real incomes of people on fixed incomes, makes exports less price competitive, creates uncertainty that discourages investment, and causes menu and shoe-leather costs.

Cost-push inflation is caused by rises in the costs of production that are not matched by higher productivity, such as higher wages negotiated by trade unions, higher prices of imported raw materials and energy (for example oil and gas), a depreciation of the currency raising import prices, or higher indirect taxes. Firms pass on the higher costs, so SRAS shifts left from SRAS1 to SRAS2 in the diagram. The price level rises from P1 to P2 and real GDP falls from Y1 to Y2, so cost-push inflation also causes higher unemployment (stagflation).

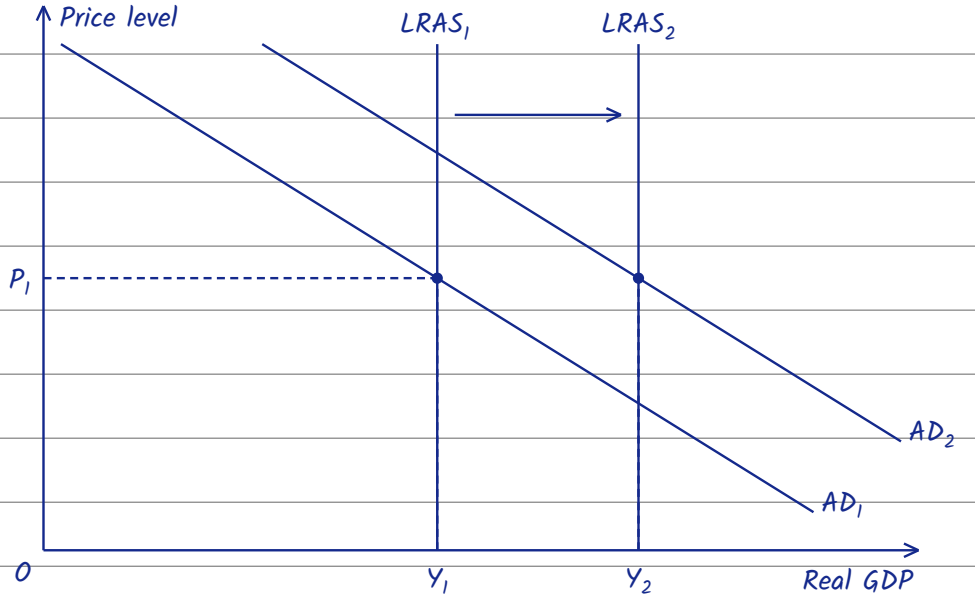


In the short run the government can try to reduce firms' costs directly. It can cut indirect taxes, such as taxes on fuel and electricity, or give subsidies to firms, which lower costs and shift SRAS back to the right, reducing the price level and

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raising output. It can remove tariffs on key imported raw materials and components so imported inputs become cheaper. It can use an incomes policy, limiting wage rises to the rate of productivity growth, so that unit labour costs do not rise and a wage-price spiral is avoided.

In the long run supply-side policies aim to increase productivity, which reduces unit costs and shifts LRAS to the right. These include government spending on education and skills training, investment in infrastructure such as transport and energy networks, tax incentives for investment in new technology, and deregulation and competition policy. As LRAS shifts right from LRAS1 to LRAS2, output rises with lower inflationary pressure.



Demand-side policies can also be used: higher interest rates or contractionary fiscal policy shift AD left and reduce the price level, and a higher interest rate may cause the exchange rate to appreciate, making imported inputs cheaper. However, with cost-push inflation this deepens the fall in real GDP and raises unemployment further, so it is a costly policy.

The effectiveness of each policy is limited. Subsidies and lower indirect taxes are quick to work but reduce tax revenue and increase government spending, so the budget deficit and government borrowing rise, and they may have to be reversed.

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They also do nothing about the cause if world energy prices keep rising. Removing tariffs reduces costs but exposes domestic producers to cheaper imports, which can lower their output and incomes and increase unemployment. Incomes policies are likely to be opposed by trade unions, which can lead to strikes and industrial disruption, and they often break down as workers demand catch-up rises. Supply-side policies tackle the cause of rising unit costs, but they take a long time to work; investment in new technology may raise unemployment in the short run; skills training is expensive and has a high opportunity cost; and spending on infrastructure first increases aggregate demand, which adds to inflationary pressure before supply rises.

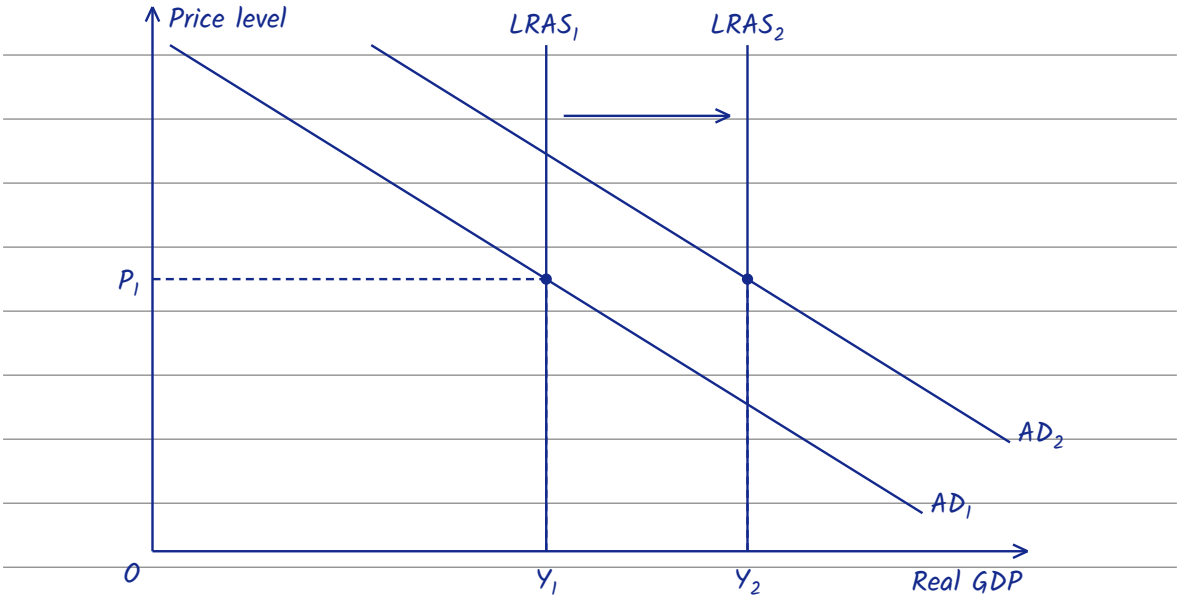
In conclusion, no single policy is fully effective. In the short run, cuts in indirect taxes, targeted subsidies and tariff cuts are the most effective way to reduce cost-push inflation quickly, especially if it is caused by a temporary rise in import prices, but they are costly for the budget. In the long run supply-side policies that raise productivity are the most effective, because they reduce unit costs permanently without reducing output. The best approach depends on the cause of the cost increase and whether it is temporary or permanent.

5

Globalisation is the increasing integration of the world's economies through free trade in goods and services, free movement of capital and labour, the spread of multinational companies and the transfer of technology, together with closer cultural and political ties. High-income economies have high GDP per capita, high levels of productivity, and depend mainly on producing and exporting secondary and tertiary goods and services. Economic growth is an increase in real GDP (or real GDP per capita) over a period of time, and in the long run is an increase in productive capacity. Living standards refer to people's economic welfare, shown by real income per head and also by low poverty, good housing, health care and education, low infant mortality and advanced infrastructure.

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Globalisation can help high-income economies to grow. Free trade allows them to specialise according to comparative advantage, for example in financial services and high-technology goods, so world output rises and they gain from economies of scale by selling to larger world markets. Exports are an injection, so AD increases with a multiplier effect, raising real GDP. Imports of cheaper raw materials and components lower costs. Inflows of foreign direct investment, migrant labour and technology increase the quantity and quality of resources, so productive capacity grows and LRAS shifts right from LRAS1 to LRAS2 in the diagram, raising real GDP from Y1 to Y2.



Economic growth can then improve living standards. Higher real GDP per capita raises real incomes, so people can buy more goods and services, and consumers benefit from a wider choice of cheaper imports. Growth increases tax revenue, so the government can spend more on health, housing and education, which are associated with a higher standard of living, and higher employment reduces poverty.

However, the statement is questionable. First, globalisation may not raise growth in every high-income economy. Competition from cheap imports produced in low-income economies with lower labour costs can cause manufacturing industries

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to decline, leading to structural unemployment in regions that depended on them, as in parts of the UK and USA. Multinationals may move production abroad, and greater interdependence means a recession or financial crisis spreads quickly between countries, as in 2008.

Second, growth does not automatically improve living standards. Economic growth is a quantitative measure, while living standards are also qualitative. If the gains go mainly to the owners of capital and highly skilled workers, income inequality widens and many households may see little rise in real income. Growth may come with longer working hours, more stress and less leisure. Growth based on globalisation increases long-distance transport of goods, which creates negative externalities such as pollution and greenhouse gas emissions, reducing the quality of life. It is also not clear how the benefits will be used: extra tax revenue may be spent on defence or debt interest rather than on health and education. In addition, real GDP per capita must rise, so if population grows quickly through migration, living standards may not rise.

In conclusion, globalisation is likely to help high-income economies to achieve economic growth in the long run, through specialisation, investment and technology, although in the short term some industries and workers lose. But the improvement in living standards is not automatic. It depends on how the benefits of growth are distributed, how the government uses the extra revenue, and on the environmental costs. So the first part of the statement is largely true, but the word "automatically" makes the second part false.