Cambridge Assessment International Education

Cambridge International AS & A Level

ECONOMICS **9708/22**

Paper 2 Data Response and Essay **February/March 2021**

1 hour 30 minutes

7310552908

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **two** questions in total:
  - Section A: answer Question 1.
  - Section B: 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 40.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **4** pages.

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Section A

Answer this question

1 Challenges for the Japanese economy.

Table 1.1 Japan: Selected Economic Indicators 2014–2019

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Source: Cabinet Office of Japan in IMF World Economic Outlook, April 2019

Extract 1: Japanese consumer prices rose by only 1.0% in 2018

Japan is the world's third-largest economy and continues its long battle to boost weak inflation. The

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In an attempt to boost inflation, the BOJ has persevered with low interest rates, and has repeatedly said it is not going to stop using this strategy, even as other central banks around the world begin raising interest rates.

Source: The Japan Times, 18 January 2019

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Extract 2: Japan's government ready to use fiscal policy to offset economic risks

Japan's government has signalled its readiness to increase government spending next year if it is necessary to offset risks to the economy that are likely to arise from the trade war between the United States and China. These risks could add to the pressure on Japan's government to increase its spending ahead of a planned increase in sales tax in October 2019.

In a long-term fiscal policy plan, the government said it is ready to use macro-economic policy 'without hesitation' if a downturn in foreign economies poses risks to Japan's economy. Despite this, the Japanese government plans to raise the sales tax to 10% from 8% in October, and this would reduce consumption spending, which makes up roughly 60% of Japan's aggregate demand, at a time of slower demand from abroad. The previous sales tax rise to 8%, from 5%, in 2014 hit consumption and was blamed for a slump in the Japanese economy.

Source: The Daily Times, 16 July 2019

(a) Calculate the rate of inflation in Japan from 2014 to the estimate in 2019. [1]

(b) With reference to Table 1.1 identify **one** piece of evidence that suggests that Japan has **not** been using an expansionary fiscal policy before 2019. [1]

(c) Explain why deflation, as experienced by Japan, discourages consumption spending. [2]

(d) Use a diagram to explain what you would expect to happen to the Yen : US dollar exchange rate if the Bank of Japan continued with low interest rates, 'even as other central banks around the world begin raising rates'. [4]

(e) Discuss how continuing with an expansionary monetary policy is expected to boost inflation and consider whether it is likely to be successful. [6]

(f) Discuss whether increases in government spending can offset risks to Japan's economy if a downturn in foreign economies occurs. [6]

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Section B

Answer **one** question

2 **(a)** Use production possibility curve (PPC) diagrams to explain the effect on an economy's output of

(i) increased use of its existing labour, and

(ii) an increased availability of natural resources. [8]

(b) Discuss the view that supply side policies to increase the supply of labour to an economy are likely to be more successful than those designed to increase the supply of entrepreneurship. [12]

3 **(a)** Explain how you would use the concept of cross-elasticity of demand to measure the impact on the demand for cars when there is a rise in the price of fuel for cars and when there is a rise in the price of public transport. [8]

(b) A government is deciding whether to impose import controls to protect its car manufacturing industry.

Discuss the factors that should be considered in this decision, and whether these import controls can be justified. [12]

4 **(a)** Explain what is meant by equilibrium price and quantity in the market for a good and how price and quantity will be affected by both a rise in the wage rate paid to the workers producing the good and a rise in wages paid to all workers in the economy. [8]

(b) Discuss whether government policies to influence the free market price for a good can ever improve the allocation of resources in that market. [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

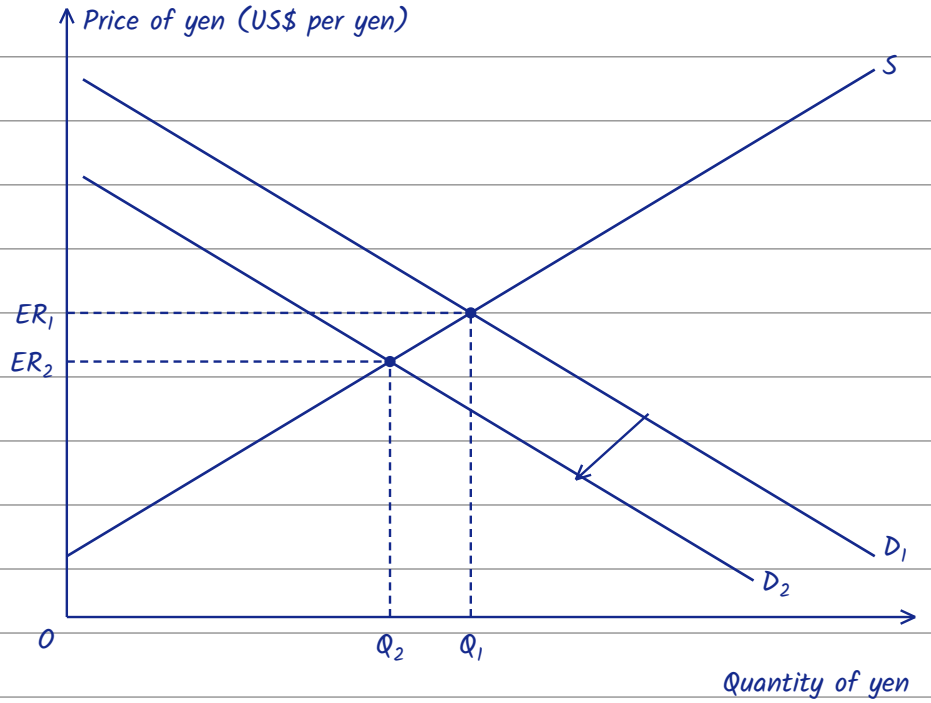
1(a) Rate of inflation = (price index 2019 – price index 2014) ÷ price index 2014 × 100 = 2.6% over the period 2014 to 2019 (estimate)

1(b) Government expenditure as a percentage of aggregate expenditure was falling (it did not increase) over the period, and the budget deficit as a percentage of aggregate expenditure was also falling.

1(c) Deflation is a sustained fall in the general price level. When consumers expect prices to keep falling, as in Japan, they postpone purchases, especially of durable goods, because the same goods will be cheaper in the future. Falling prices also create uncertainty about jobs and incomes, so households save more and spend less.

1(d) The exchange rate of the yen is determined by the demand for and supply of yen on the foreign exchange market.

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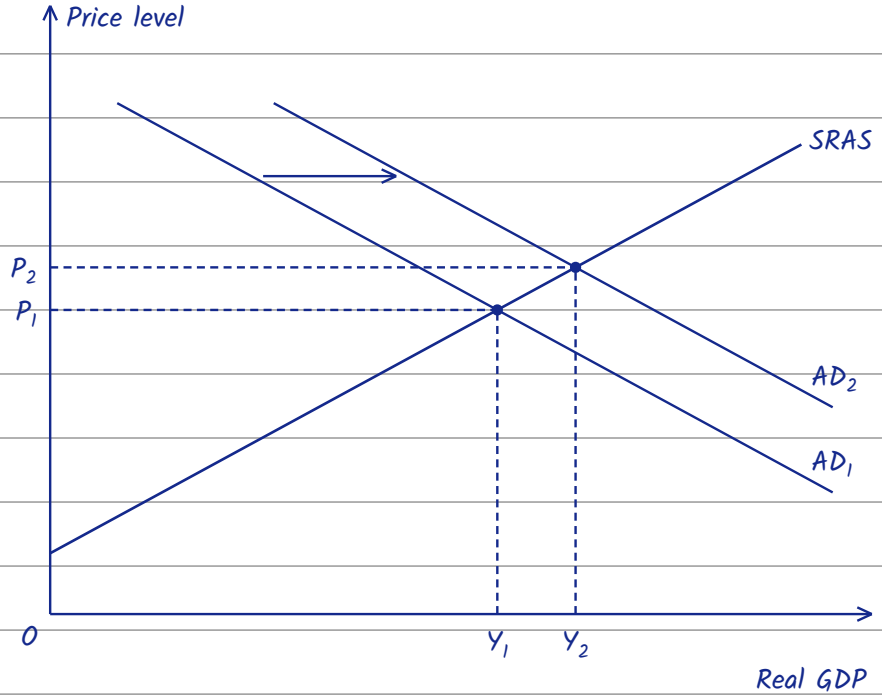
If the Bank of Japan keeps interest rates low while other central banks raise theirs, the return on saving in Japan becomes relatively lower. Fewer foreign investors want to hold yen deposits (hot money flows out), so the demand for yen falls from D1 to D2. At the same time Japanese savers sell yen to buy US dollars to earn higher returns abroad, which would also increase the supply of yen. The price of the yen falls from ER1 to ER2 and the quantity of yen traded falls from Q1 to Q2. I would therefore expect the yen to depreciate against the US dollar.

1(e) An expansionary monetary policy is the use of lower interest rates and/or an increase in the money supply (including quantitative easing) by the central bank in order to increase aggregate demand. The BOJ has kept interest rates low to try to raise inflation from only 1.0% in 2018.

Lower interest rates reduce the cost of borrowing, so firms undertake more investment projects as more become profitable. Households borrow more to buy durable goods and houses, and the reward for saving falls, so consumption rises. Lower rates also cause the yen to depreciate, making Japanese exports cheaper and imports dearer, so net exports increase. As C, I and (X – M) rise, AD shifts right

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from AD1 to AD2. As the economy nears capacity this creates demand-pull inflation, and a weaker yen raises import prices, adding cost-push inflation.



However, it may not succeed. Interest rates have been low in Japan for years, so there is little room to cut them further (a liquidity trap). Table 1.1 shows investment stayed relatively stable over the period despite loose monetary policy, which suggests investment is interest inelastic. If consumers expect deflation they will keep saving whatever the interest rate, and banks may not lend the extra money. The planned rise in sales tax will also reduce consumption. So continuing the policy alone is unlikely to raise inflation much; it would need to be supported by fiscal policy.

1(f) A downturn in foreign economies, such as one caused by the US and China trade war, would reduce demand for Japan's exports. Net exports fall, so AD shifts to the left, and through the multiplier national income falls, causing unemployment and lower prices, making deflation worse.

Increasing government spending, for example on infrastructure, directly adds to AD (G is a component of AD = C + I + G + (X − M)). This can offset the fall in

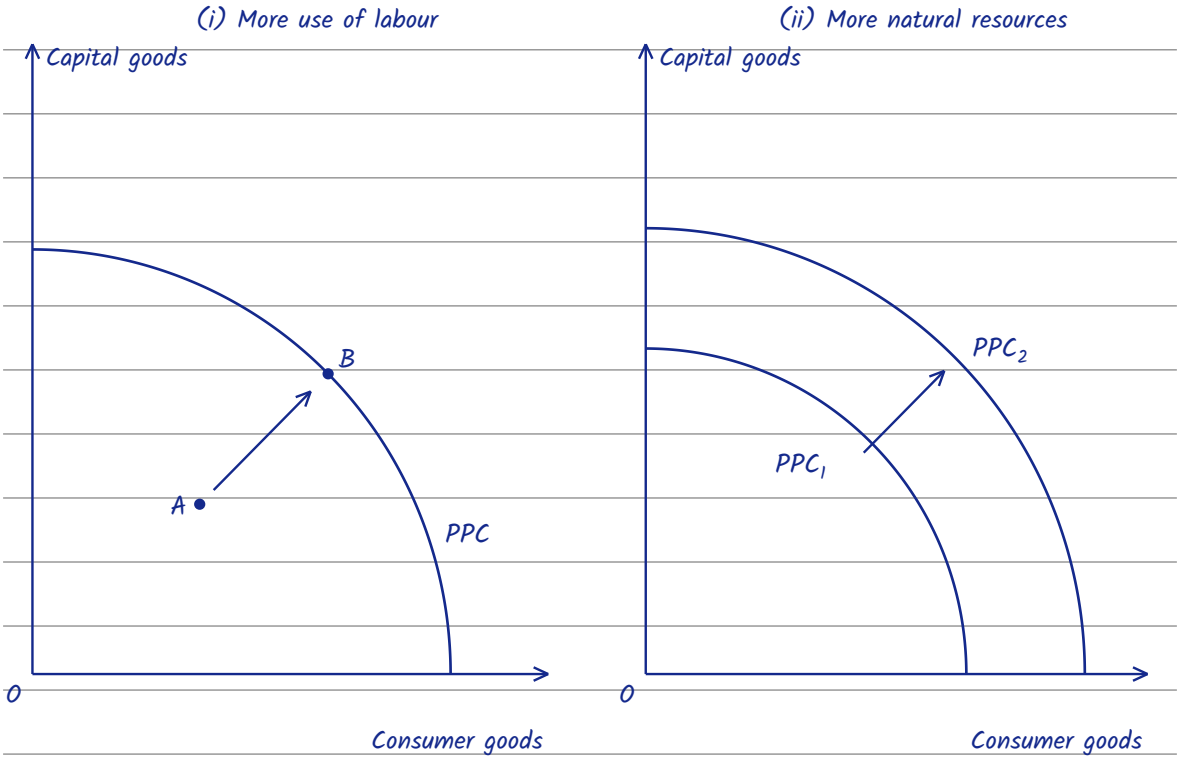
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net exports, shifting AD back to the right. Through the multiplier, incomes and consumption rise by more than the initial spending, which protects jobs. It could also offset the fall in consumption, about 60% of Japan's AD, expected from raising the sales tax from 8% to 10% in October 2019, which caused a slump after the previous rise in 2014.

However, success depends on the size and timing of the spending: there are time lags, and it must be large enough to match the fall in exports. Japan already has a budget deficit and very high national debt, so more borrowing may worry markets and households may save more expecting future taxes (crowding out consumption). Raising the sales tax at the same time works in the opposite direction. Overall, government spending can offset the risks in the short run, but only partly, unless the sales tax rise is delayed and spending is targeted at projects that also raise productive capacity.

2(a) A production possibility curve (PPC) shows the maximum combinations of two goods an economy can produce when all its resources are fully and efficiently employed with the existing technology.

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(i) If some labour is unemployed, the economy produces at a point inside the PPC, such as A. Increased use of its existing labour, for example by reducing unemployment or underemployment, means more workers are producing, so the utilisation of resources improves. Output of both goods can increase and the economy moves from A towards B on the PPC. This is an increase in actual output, but the curve itself does not shift, because the economy's productive capacity has not changed.

(ii) An increased availability of natural resources, for example the discovery of new oil or mineral deposits or more fertile land, increases the quantity of factors of production. This raises the potential output of the economy, so the PPC shifts outwards from PPC1 to PPC2. More of both goods can now be produced. Actual output will also rise if the new resources are used, as the economy can move to a point on PPC2.

2(b) Supply side policies aim to increase the quantity and quality of factors of production, shifting LRAS to the right and raising potential output. Labour is the

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human effort used in production, while entrepreneurship is the factor that organises the other factors and takes risks.

Policies to increase the supply of labour include relaxing immigration controls, which quickly adds workers to the labour force and fills skill shortages. Reducing income tax increases the reward for working, so more people enter the labour force and some work longer hours. Raising the retirement age keeps experienced workers in employment, while training and childcare support allow the unemployed and parents to join the workforce.

Policies to increase the supply of entrepreneurship include reducing corporation tax and business taxes, so entrepreneurs keep more of their profit and are more willing to take risks. Start-up grants, subsidies and cheap loans help new businesses overcome a lack of finance, and training in management skills and reducing red tape make it easier to set up and run a firm.

Labour policies may be more successful because the effects are more direct and predictable: immigration or a higher retirement age adds a known number of workers. Entrepreneurship depends on attitudes to risk and creativity, which are hard for governments to change, and many start-ups fail within a few years, so grants may be wasted. However, labour policies also have limits. Income tax cuts may cause some to work less (the income effect), and more labour only raises output if there are jobs and capital for it to work with; otherwise it adds to unemployment. Entrepreneurs, by contrast, create the firms and jobs that employ labour and introduce innovation, so successful entrepreneurship can raise productivity and long-run growth by more.

Success also depends on the economy. An ageing economy with labour shortages, such as Japan, gains most from increasing the labour supply, while an economy with high unemployment needs more entrepreneurs to create jobs. In conclusion, labour supply policies are more likely to succeed in the short run, but entrepreneurship policies have greater long-term potential, and the two work best

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together.

3(a) Cross elasticity of demand (XED) measures the responsiveness of the quantity demanded of one good to a change in the price of another good.

XED = % change in quantity demanded of good A ÷ % change in price of good B

Fuel and cars are complements, as they are used together, so the XED of cars with respect to the price of fuel is negative. A rise in the price of fuel increases the cost of running a car, so the quantity of cars demanded falls: a positive change in price with a negative change in quantity gives a negative coefficient.

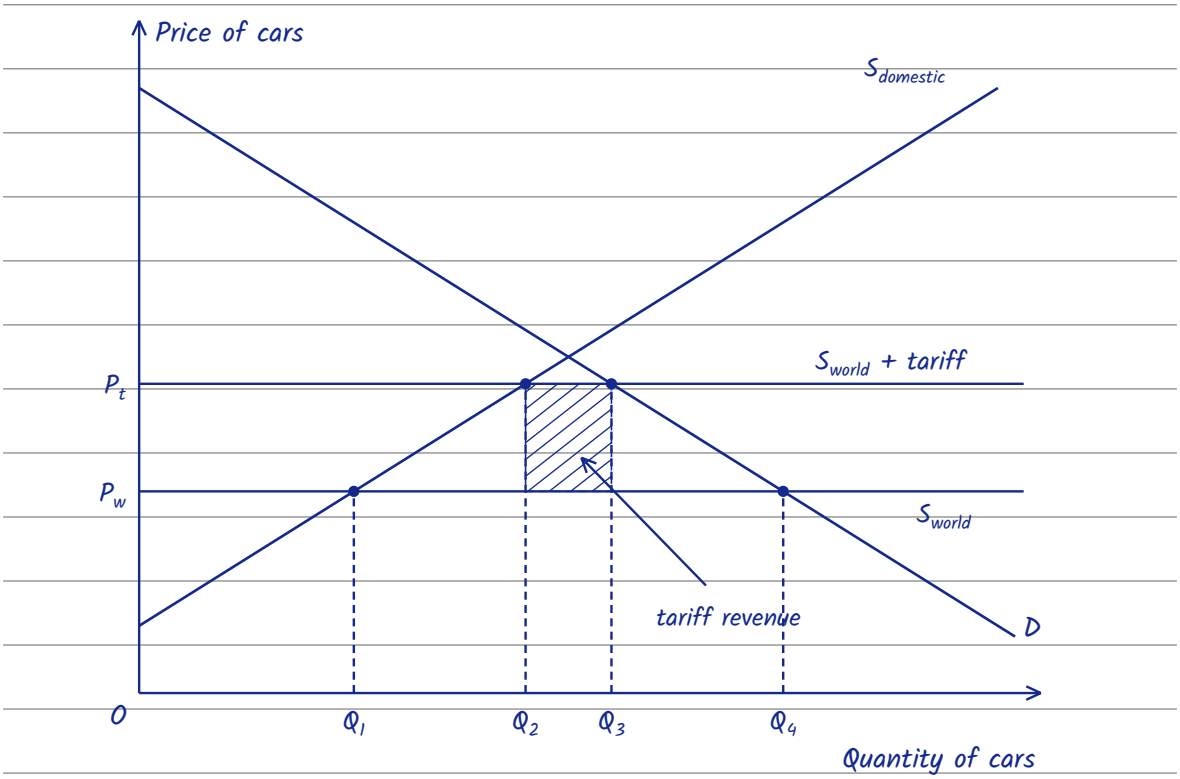
The closer the complementary relationship, the larger the fall in demand for cars and the larger the (negative) coefficient. For example, if fuel prices rise 10% and car demand falls 5%, XED = −0.5.

Public transport and cars are substitutes, as they are alternative ways to travel, so the XED is positive. A rise in the price of public transport makes travelling by car relatively cheaper, so some people switch to buying cars and the demand for cars rises: both changes are positive, so the coefficient is positive. The closer the substitutes, the greater the rise in car demand and the higher the coefficient. If public transport is a poor substitute, for example in rural areas, the coefficient will be close to zero.

By calculating the size and sign of each coefficient, the government or car firms can measure the impact of each price change on the demand for cars.

3(b) Import controls such as tariffs and quotas restrict imports to protect domestic producers. A tariff raises the price of imported cars from Pw to Pt, as shown in the diagram.

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Domestic production rises from Q1 to Q2, consumption falls from Q4 to Q3 and imports fall from Q1Q4 to Q2Q3. The government gains the hatched tariff revenue.

The reasons for protection include saving jobs in the car industry, which may be a large employer in some regions; protecting an infant industry until it grows and gains economies of scale; preventing dumping, where foreign firms sell below cost; and reducing a current account deficit, as cars are expensive imports.

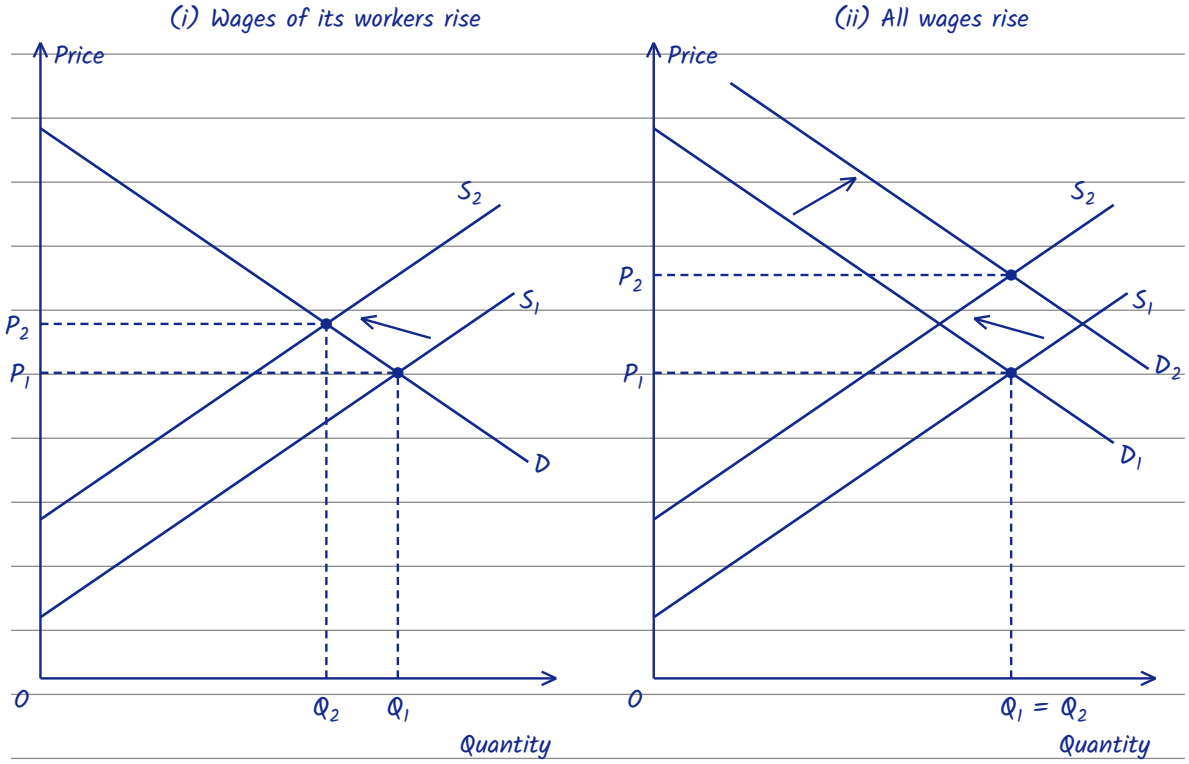
The factors to consider include whether the industry really is an infant industry that will become competitive, or a declining industry that will need protection forever. The government should check whether the charge of dumping can be proved, as cheap imports may simply reflect comparative advantage. It must consider the risk of retaliation: trading partners may put tariffs on its exports, which would cost jobs in other industries. It should also consider the cost to consumers, who pay higher prices and have less choice, and to other firms that use cars, such as taxi and delivery firms. Protection may also reduce competition, so domestic car makers have less incentive to become efficient and innovate.

Import controls can be justified as a short-term measure if the industry is a

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genuine infant industry with a clear plan to become competitive, or if dumping is proven, in which case controls are allowed under WTO rules. Saving jobs in an inefficient industry is harder to justify, because the cost per job saved is high and resources are kept away from industries where the country has a comparative advantage. In conclusion, import controls are only justified when they are temporary and targeted; otherwise the costs to consumers and the risk of retaliation outweigh the benefits.

4(a) Equilibrium price is the price at which the quantity demanded of a good equals the quantity supplied, so the market clears with no excess demand or excess supply. Equilibrium quantity is the amount bought and sold at that price. There is no tendency for the price to change unless demand or supply changes.



(i) A rise in the wage rate paid to the workers producing the good increases the firms' costs of production. They are willing to supply less at each price, so supply shifts left from S1 to S2. At the original price there is now excess demand, so the price rises from P1 to P2 and the quantity falls from Q1 to Q2. The size of the

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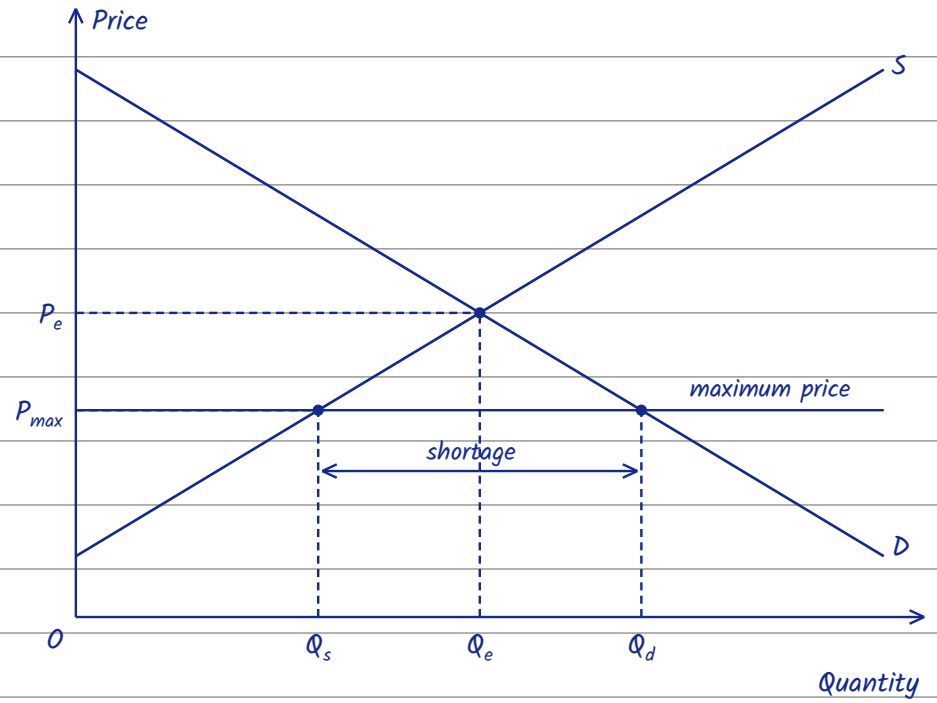
changes depends on the price elasticity of demand: if demand is inelastic, price rises a lot and quantity falls little.

(ii) A rise in wages paid to all workers also raises the costs of the firms producing this good, so supply shifts left again. But it also raises consumers' incomes. If the good is a normal good, demand increases from D1 to D2. Both shifts push price up, so the price rises clearly from P1 to P2. The effect on quantity depends on the relative size of the shifts: in the diagram they are equal so quantity is unchanged; if demand increases by more, quantity rises. If the good is inferior, demand falls, so quantity falls and the change in price is uncertain.

4(b) In a free market the price is set by demand and supply. Resources are allocated efficiently when output is where marginal social benefit equals marginal social cost. Governments can influence the free market price through maximum and minimum prices, indirect taxes and subsidies.

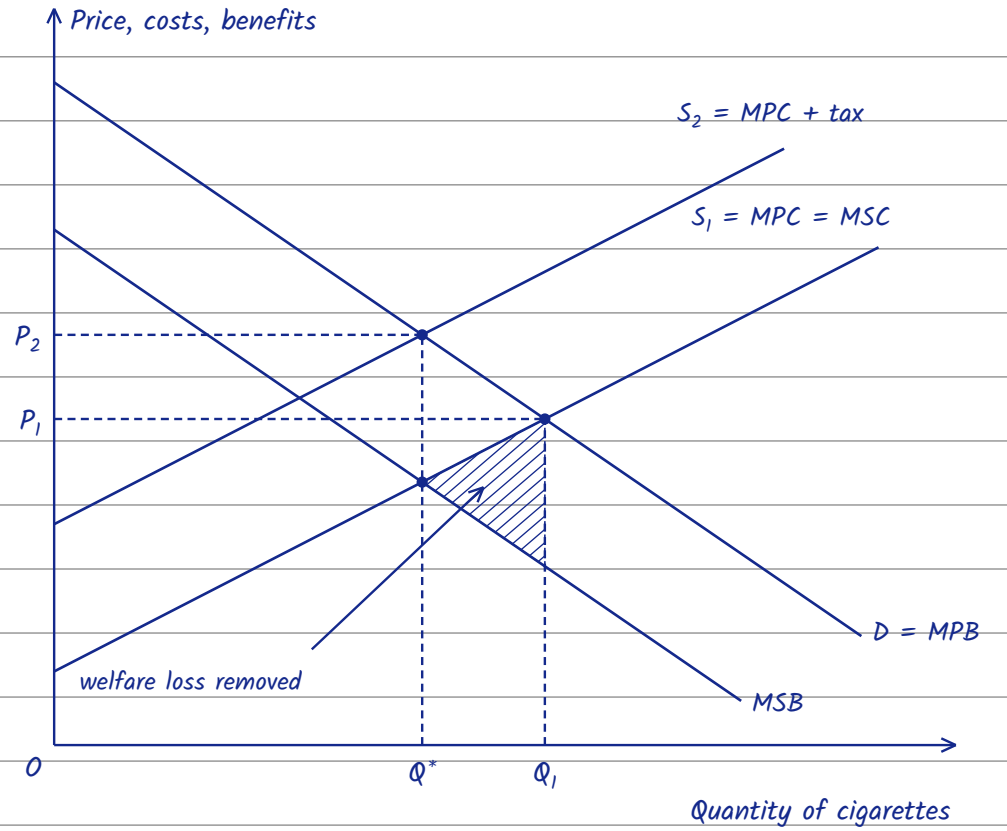
A maximum price set below the equilibrium price, for example on rents or basic foods, makes the good affordable for poorer consumers. However, as the diagram below shows, quantity supplied falls to Qs while quantity demanded rises to Qd, causing a shortage. Goods must be rationed by queues, and black markets may develop.

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An indirect tax on a demerit good such as cigarettes, which creates negative externalities, raises the price. In the diagram, the free market produces Q1, where MPB = MPC, but MSB is below MPB, so output is above the social optimum. A tax equal to the external cost shifts supply to S2 and reduces output to Q^*, removing the hatched welfare loss and improving the allocation of resources. Similarly, a subsidy lowers the price of a merit good such as education and increases consumption towards the social optimum.

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These policies have disadvantages. It is very difficult to measure the external cost, so a tax may be set too high or too low. If demand for cigarettes is price inelastic, the tax raises revenue but reduces consumption only slightly, and it is regressive. Subsidies have an opportunity cost, since the money could be spent elsewhere, and may be hard to remove. Maximum and minimum prices create shortages or surpluses, so they can cause government failure and worsen the allocation of resources.

So government policies can improve the allocation of resources, but only where there is market failure, such as externalities or information failure, and when the policy is set at the right level. Where the free market is working efficiently, interfering with the price usually makes things worse. In conclusion, they can improve the allocation of resources, most effectively with taxes and subsidies aimed at externalities, while price controls are more likely to lead to government failure.