Cambridge Assessment International Education

Cambridge International AS & A Level

ECONOMICS **9708/22**

Paper 2 Data Response and Essay **February/March 2020**

1 hour 30 minutes

3405578816

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. Blank pages are indicated.

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Section A

Answer this question.

1 Trade war breaks out between the United States (US) and China

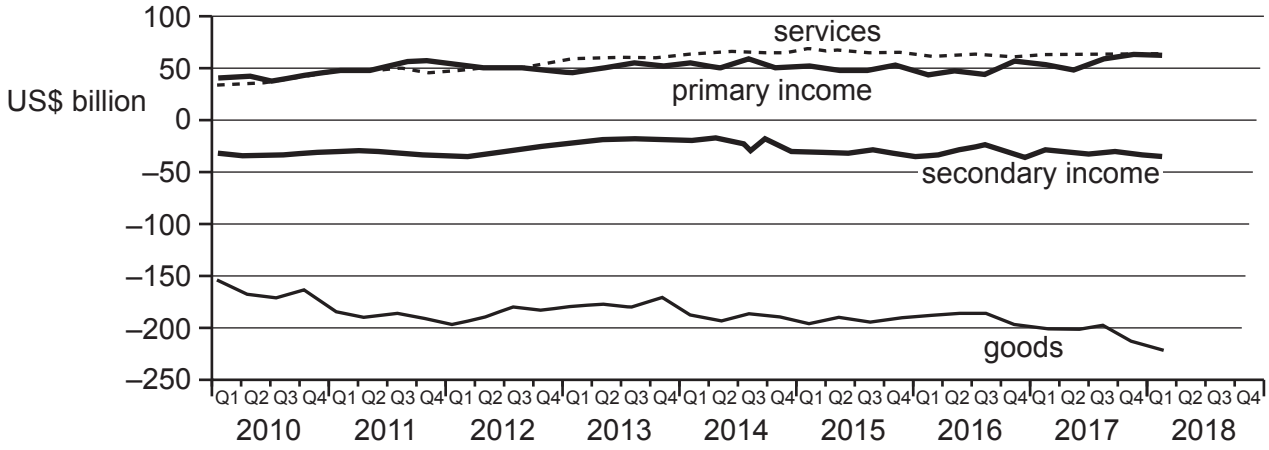


Fig 1.1: Components of the US current account, Q1 2010 to Q1 2018

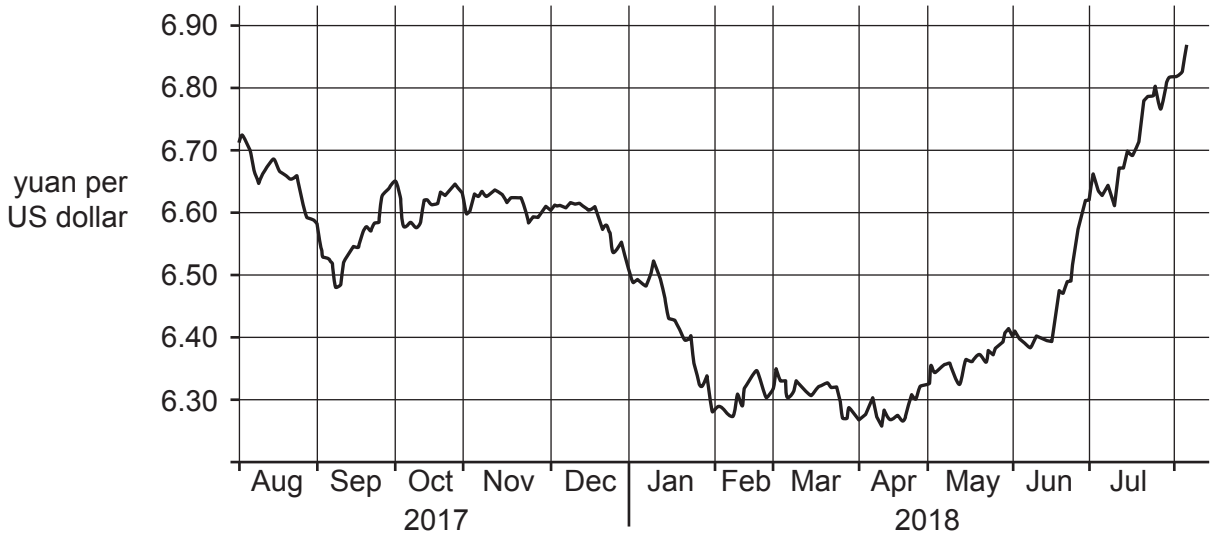


Fig. 1.2: Chinese yuan to US dollar rate of exchange, August 2017 to July 2018

Extract 1: The US government says, 'We are confronting China's unfair trade policies'

For many years, China has pursued industrial policies and unfair trade practices – including dumping, discriminatory non-tariff barriers and industrial subsidies – that favour Chinese firms and make it impossible for many US firms to compete. China imposes much higher tariffs on US exports than the US imposes on China. China's average tariff rate is nearly three times higher than the average US rate. Certain products are even more imbalanced, for instance the US charges a 2.5% tariff on Chinese cars, while China currently maintains a 25% tariff on cars from the US. China has banned imports of some US agricultural products, excluding US farmers from a major market for their goods. China has dumped and unfairly subsidised a range of goods for the US market, undermining US domestic firms. In 2018 alone, the US government has found dumping or unfair subsidies on 13 different products.

Source: The White House, US government, 29 May 2018

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Extract 2: Winners and losers in the US–China trade war

The US government imposed a first round of tariffs on Chinese goods on 6 July 2018, by introducing 25% taxes on US$34 billion of Chinese imports. These were a response to China's "unfair trade policies" – the US claimed China was selling Chinese products in the US below their normal price, called 'dumping', as well as subsidising the production of goods exported to the US. It was then announced that tariffs on a further US$50 billion worth of imports from China would come into effect. The US threats have risen since, with the president saying he is ready to impose tariffs on all US$500 billion of Chinese imports.

China has retaliated, saying it will levy new tariffs on more than 5 200 US products, if the US government proceeds with its latest tariff threat. The duties would range from 5% to 25% on US$60 billion worth of US products imported into China, including further agricultural products such as soya beans.

The US government imposed tariffs because they said that the "unfair trade practices" have resulted in a US trade deficit with China, but this makes no sense. The trade deficit is an inevitable by-product of a robust US economy, a large US fiscal deficit and a strong US dollar. If correcting the US trade deficit is the government's policy aim then it should raise US taxes to reduce the fiscal deficit and the US central bank should act to lower the value of the US dollar against China's currency, the yuan.

Both countries will lose in a major trade war, but the losses will differ in kind and amount. It could cut China's exports to the US by about a third, some US$200 billion annually. Eventually, Chinese firms will find new markets and create new products to compensate. For a period of two or three years, however, the disruption to workers and firms will be enormous. As many as 4 million Chinese workers could become unemployed, and many Chinese firms will go out of business.

If US exports to China are cut by a third in a major trade war, the US will lose about US$50 billion of exports annually. About 250 000 US workers will lose their jobs. If US firms can see no end to the trade war, they will reorganise and locate production in lower-cost countries like Vietnam and Peru. The Chinese government, however, will strongly encourage Chinese firms to produce many of their goods at home, even though the cost will be much higher.

Source: Gary Hufbauer and Mercy A Kuo, The Diplomat, 11 July 2018

(a) (i) Using Fig. 1.1, how is the US balance of trade in goods in Q1 2018 different from that in Q1 2010? [2]

(ii) Explain how China's imposition of tariffs of 25% on cars from the US might have contributed to the change you have identified. [2]

(b) (i) Using Fig. 1.2, how has the value of the yuan against the US dollar changed between April and July 2018? [1]

(ii) Identify and explain **one** factor that will determine the impact of this exchange rate change on China's balance of trade in goods. [3]

(c) Explain how, 'a robust US economy, a large US fiscal deficit and a strong US dollar' could each contribute to a US trade deficit. [6]

(d) With reference to economic theory, discuss whether the US economy is likely to benefit overall from the trade war with China. [6]

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Section B

Answer **one** question.

2 **(a)** Explain what determines the change in equilibrium price and equilibrium quantity of a good when there is a rise in incomes in an economy. [8]

(b) Discuss the effectiveness of any possible measures to ensure that food would be available to consumers in an economy where food supplies are frequently disrupted because of drought. [12]

3 **(a)** The government raises taxes to provide a toll road bridge and streetlights in a country. Explain how an economist would classify each of these provisions. [8]

(b) Discuss the view that direct taxes are the fairest and the most effective way for governments to raise revenue. [12]

4 **(a)** Explain using aggregate demand and aggregate supply diagrams the distinction between cost-push inflation and demand-pull inflation and explain **one** cause of each. [8]

(b) Discuss whether monetary policy measures are always effective in correcting a high rate of inflation. [12]

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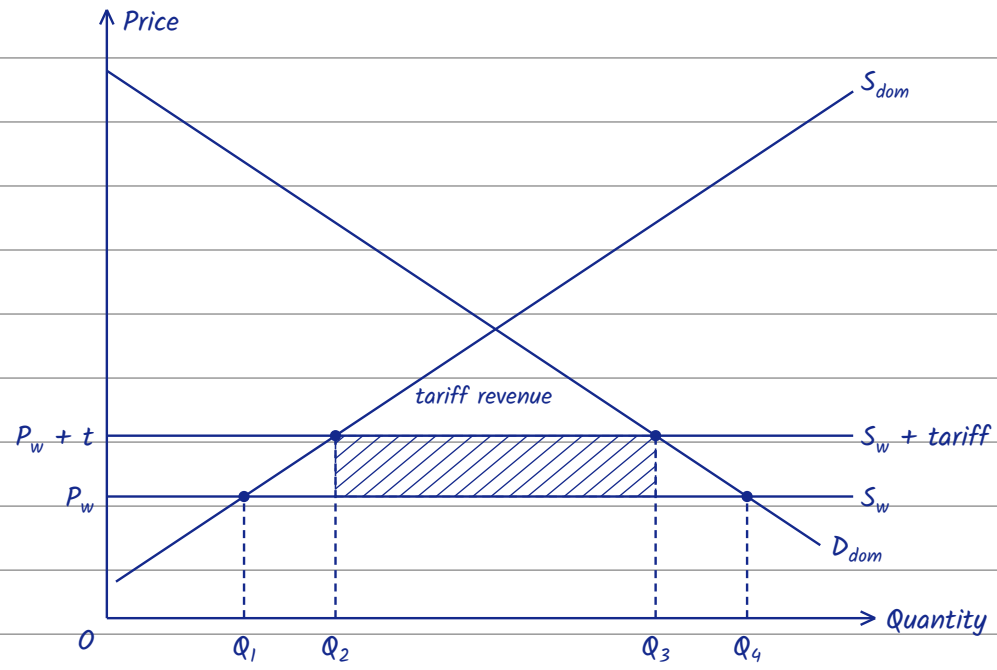
Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

Question number	
1(a)(i)	The US trade in goods deficit is bigger in Q1 2018 than in Q1 2010: it has increased from about US$155 billion to about US$220 billion.
1(a)(ii)	The 25% tariff raises the price of US cars in China, so Chinese consumers buy fewer of them (a contraction in demand for US cars). US export revenue falls, so the US deficit on trade in goods gets bigger.
1(b)(i)	The yuan has depreciated (fallen in value) against the US dollar: from about 6.28 to about 6.87 yuan per US$.
1(b)(ii)	One factor is the price elasticity of demand for China's exports and imports. The depreciation makes Chinese exports cheaper in US dollars and imports dearer in yuan. The trade balance only improves if the sum of the price elasticities of demand for exports and imports is greater than 1 (the Marshall-Lerner condition). In the short run demand is often inelastic, so the balance may first get worse before it improves (the J-curve effect).
1(c)	A robust US economy means high employment and rising incomes. US consumers spend more, and because imports are normal goods (often income elastic) spending on imports rises; firms may also sell more at home rather than export. So imports grow faster than exports and the trade deficit widens. A large fiscal deficit means government spending is greater than tax revenue, for example from higher G or tax cuts. This raises aggregate demand and disposable income, so more is spent on imports (including the government buying foreign goods), which increases the trade deficit.

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A strong US dollar means each dollar buys more foreign currency. US exports become more expensive in foreign currencies, so foreigners buy fewer, while imports become cheaper in dollars, so Americans buy more. If demand is price elastic, export revenue falls and import spending rises, widening the deficit.

1(d)



The theory of comparative advantage shows that if each country specialises in goods it can produce at a lower opportunity cost and then trades freely, total output rises and both countries gain from lower prices and more choice. A trade war moves away from this.

The US could benefit. In the diagram a tariff raises the price of Chinese imports from P_w to $P_w + t$, so US producers expand output from Q_1 to Q_2, protecting jobs, and imports fall from Q_1Q_4 to Q_2Q_3. The government gains tariff revenue (shaded) on tariffs covering US$34 billion and then US$50 billion of imports. If China is dumping and subsidising, the tariffs may stop this unfair competition or force China to negotiate.

However, there are costs. US consumers pay higher prices and buy less (Q_4 to Q_3), and firms using Chinese components face higher costs. China has retaliated with

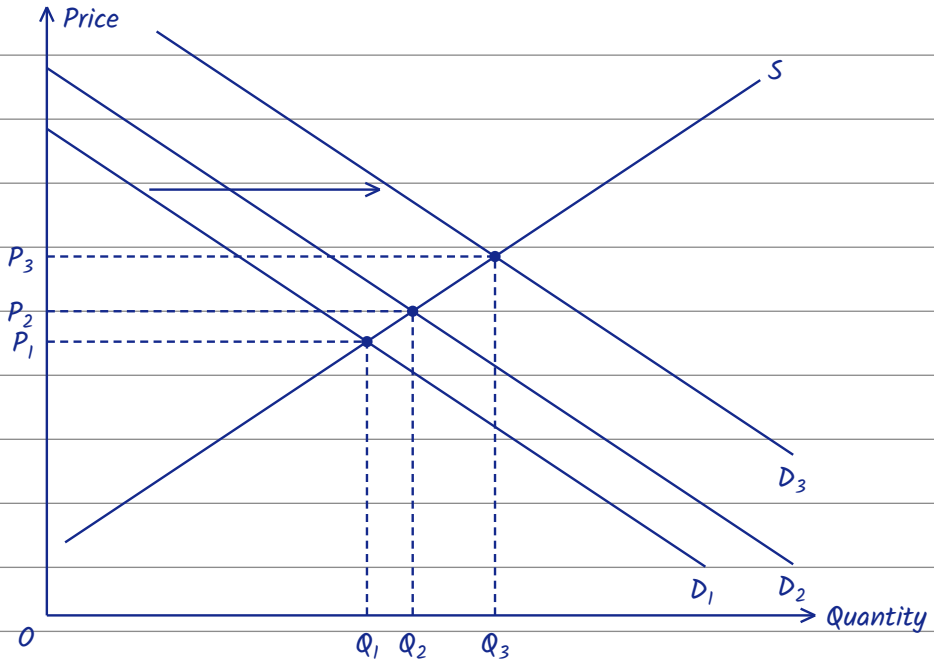
Question number

tariffs of 5% to 25% on US$60 billion of US goods, so US exports such as soya beans could fall by about US$50 billion a year, with about 250 000 jobs lost. Some US firms may move production to Vietnam or Peru.

On balance the US is unlikely to benefit overall: protected industries gain, but consumers, exporters and workers lose more. It would only gain if the threat quickly ends China's unfair practices and leads to freer trade.

2(a) A rise in incomes shifts the demand curve, and the size and direction of the shift depend on the income elasticity of demand (YED). YED measures the responsiveness of quantity demanded to a change in income: YED = % change in quantity demanded ÷ % change in income. Supply is assumed to be unchanged (ceteris paribus).

Diagram 1: normal goods (D_2 necessity, D_3 luxury)



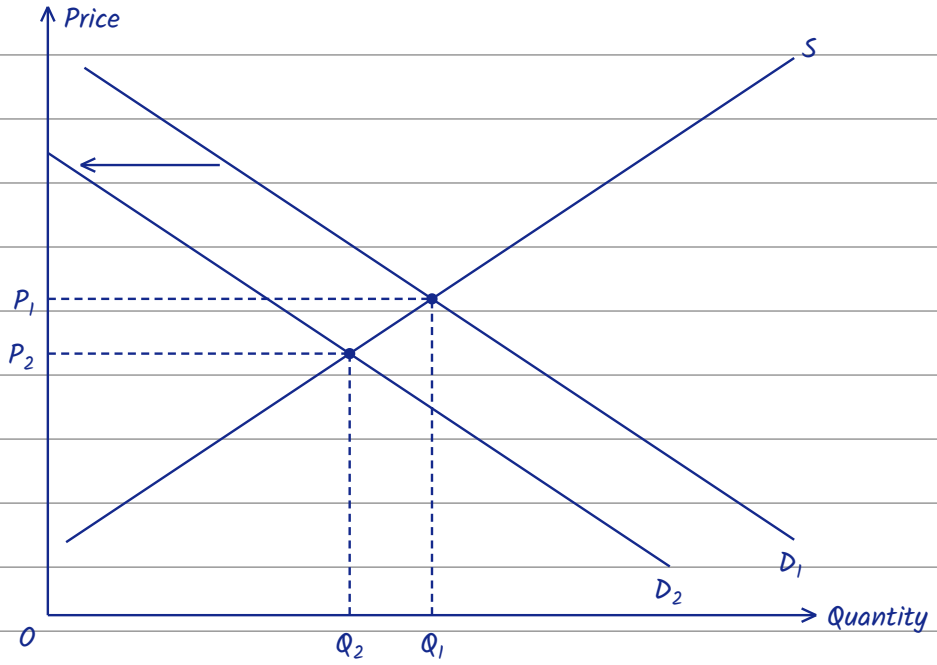
For a normal good YED is positive, so demand shifts to the right. If the good is a luxury (YED greater than 1), demand rises by a bigger percentage than income, so demand shifts a long way, from D_1 to D_3 in Diagram 1. There is excess demand at P_1, so the price rises and the equilibrium moves to a much higher price P_3 and

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quantity Q_3.

For a necessity (YED between 0 and 1) demand rises by a smaller percentage than income, so demand shifts only a little, from D_1 to D_2. Equilibrium price and quantity both rise, but only slightly, to P_2 and Q_2.

Diagram 2: inferior good

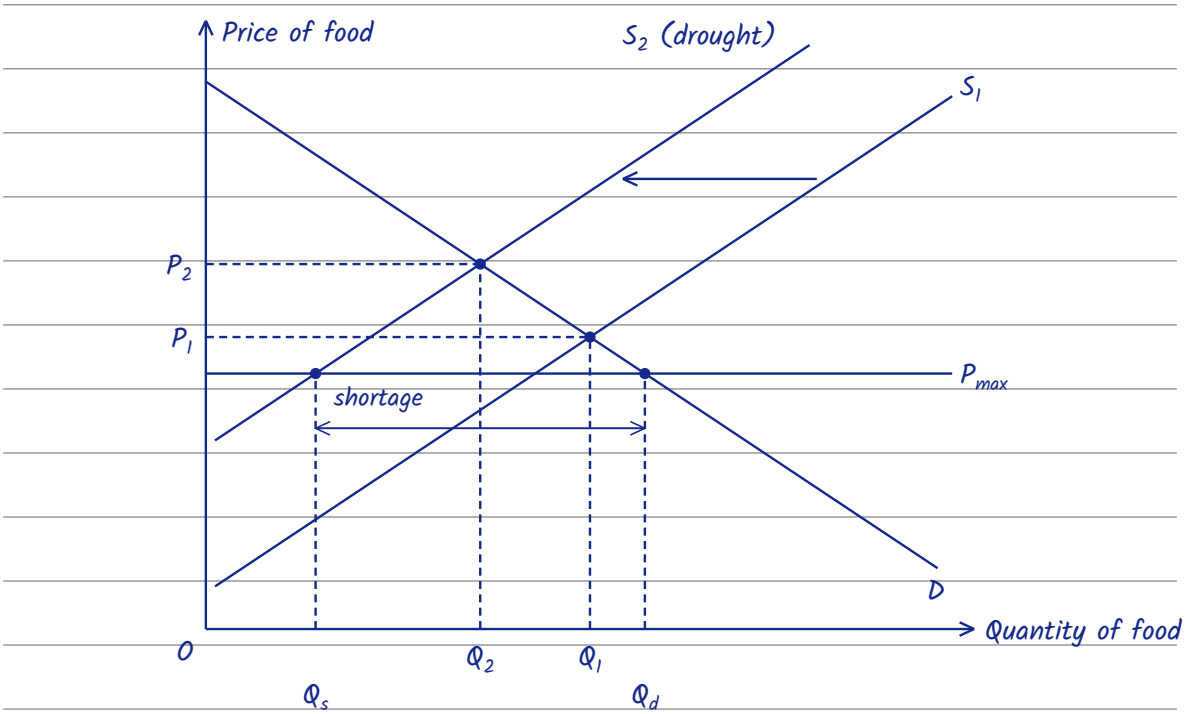


For an inferior good YED is negative: as incomes rise consumers switch to better alternatives, so demand falls and shifts left from D_1 to D_2 in Diagram 2. There is excess supply at P_1, so the equilibrium price falls to P_2 and the equilibrium quantity falls to Q_2.

The size of the change in price compared with quantity also depends on the price elasticity of supply: the more inelastic supply is, the more price rises and the less quantity rises.

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2(b)



A drought shifts the supply of food to the left, from S_1 to S_2. At P_1 there is excess demand, so the price rises to P_2 and the quantity falls to Q_2. Poorer households may not be able to afford enough food. Several measures could be used.

First, a maximum price (price ceiling) such as P_{max} set below P_2 keeps food affordable. However, at P_{max} firms supply only Q_s while consumers demand Q_d, so the shortage gets worse. Food then has to be allocated by queues or rationing, and black markets are likely to develop at prices above P_2. Lower prices also reduce farmers' incomes and their incentive to grow food, so supply may fall further in the future. Rationing with coupons can share out the food fairly, but it is costly to run and does not increase the amount of food.

Second, a buffer stock: the government buys and stores food in years of good harvests, then releases it in drought years. This shifts supply back to the right, keeping food available and the price stable. However, food is perishable, storage is expensive, and if droughts are frequent there may not be enough good years to build up stocks, so the scheme can run out of food and money.

Third, the country can import food. This quickly raises supply, but it needs foreign

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currency, worsens the current account and depends on world prices, which may also be high if the drought is regional.

Fourth, in the long run the government can subsidise or directly provide irrigation, dams and water storage, and fund research into drought-resistant crops. These increase supply and make it less sensitive to drought, so they tackle the cause of the problem. However, they are very expensive, have an opportunity cost, and take years to have an effect.

Overall, no single measure is fully effective. Price controls and rationing only share out a shortage and can create black markets, so they are the least effective. Imports and buffer stocks are the most effective short-term measures, while investment in irrigation is the most effective long-term solution. The best approach combines them, and its success depends on how often droughts happen, the government's finances and how efficiently the schemes are run.

3(a) Economists classify goods by two characteristics, not by who pays for them. A good is excludable if people who do not pay can be prevented from consuming it. A good is rival if one person's consumption reduces the amount available for others. A private good is both excludable and rival; a public good is non-excludable and non-rival.

A toll road bridge is a private good. It is excludable because a toll is charged and people who do not pay can be stopped at the barrier from crossing. It is rival because each car that crosses uses up space on the bridge, so at busy times there is congestion and less space for others. Because people can be charged, the bridge could be provided by the market, even though here the government has funded it from taxes.

Streetlights are a public good. They are non-excludable because once a light is switched on, everyone in the street benefits and nobody can be prevented from using the light, even if they have not paid. They are non-rival because one more

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person walking under a light does not reduce the light available to others, so the marginal cost of an extra user is zero. This creates the free rider problem: people will not pay voluntarily, so the market would not provide streetlights and they have to be paid for by taxes. This is why the government provides them.

3(b) Direct taxes are taxes on income and wealth, paid directly to the government by the person or firm taxed, for example income tax and corporation tax. Indirect taxes are taxes on spending, such as VAT and excise duties, where the burden can be passed on to consumers.

Direct taxes can be seen as the fairest. Income tax is usually progressive: the proportion of income paid in tax rises as income rises, so it is based on ability to pay and meets the principle of vertical equity. It reduces inequality in disposable incomes. Indirect taxes are regressive: a tax on food takes a bigger proportion of a poor person's income than a rich person's, because poorer households spend a larger share of their income.

However, fairness is a value judgement. Indirect taxes can be made less regressive by charging no tax on necessities and higher rates on luxuries, and they let people choose how much tax they pay through their spending. High direct tax rates may also seem unfair to people who work hard.

Direct taxes can be effective: income tax raises large and fairly certain revenue, and it rises automatically as the economy grows. But high marginal rates can reduce the incentive to work, save and invest, and encourage tax avoidance, evasion and the movement of skilled workers and firms abroad, so revenue may even fall (the Laffer curve). In developing countries with many informal workers, income tax is hard and costly to collect.

Indirect taxes are often more effective at raising revenue: they are cheap and convenient to collect from firms, hard to evade, and have less effect on the incentive to work. Taxes on goods with inelastic demand, such as fuel and tobacco,

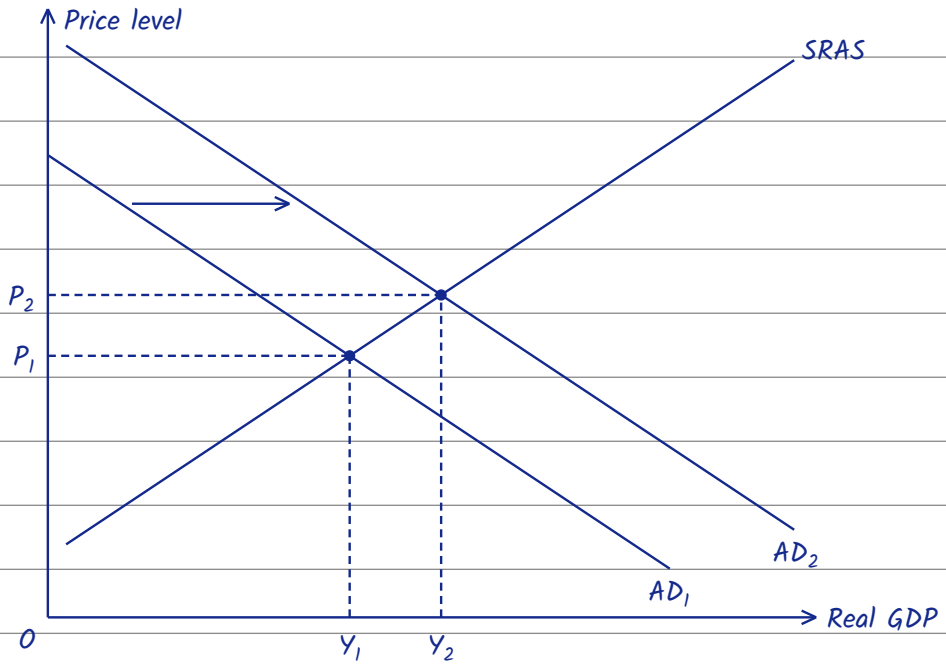
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raise a lot of revenue, and taxes on demerit goods also correct negative externalities. But they raise prices and can add to inflation.

In conclusion, the view is only partly true. Direct taxes are usually fairer because they are progressive, but they are not always the most effective way to raise revenue, especially where incomes are hard to measure. Most governments therefore use a mix of both, and the best balance depends on the country's level of development, the tax rates and how well taxes are enforced.

4(a) Inflation is a sustained rise in the general price level. Demand-pull and cost-push inflation differ in their cause: demand-pull comes from the demand side of the economy, cost-push from the supply side.

Diagram 1: demand-pull inflation

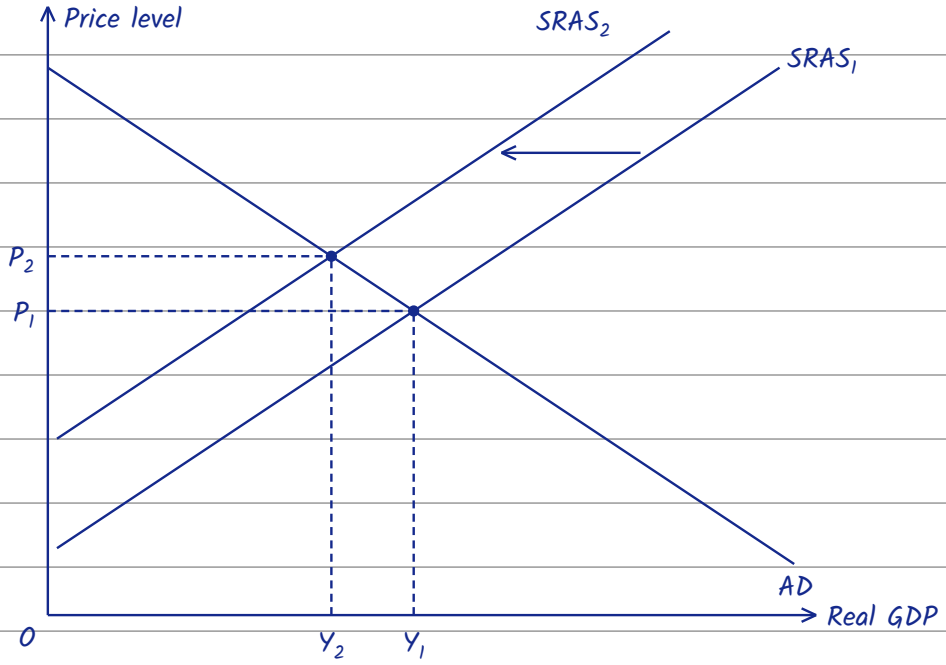


Demand-pull inflation happens when aggregate demand grows faster than the economy's ability to supply goods and services. In Diagram 1, AD shifts right from AD_1 to AD_2, so the price level rises from P_1 to P_2 and real GDP rises from Y_1 to Y_2. One cause is a rise in government spending, for example on infrastructure: G is a component of AD ($C + I + G + X - M$), so total spending rises. As the economy

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gets closer to full capacity, firms find it harder to increase output and raise prices instead.

Diagram 2: cost-push inflation



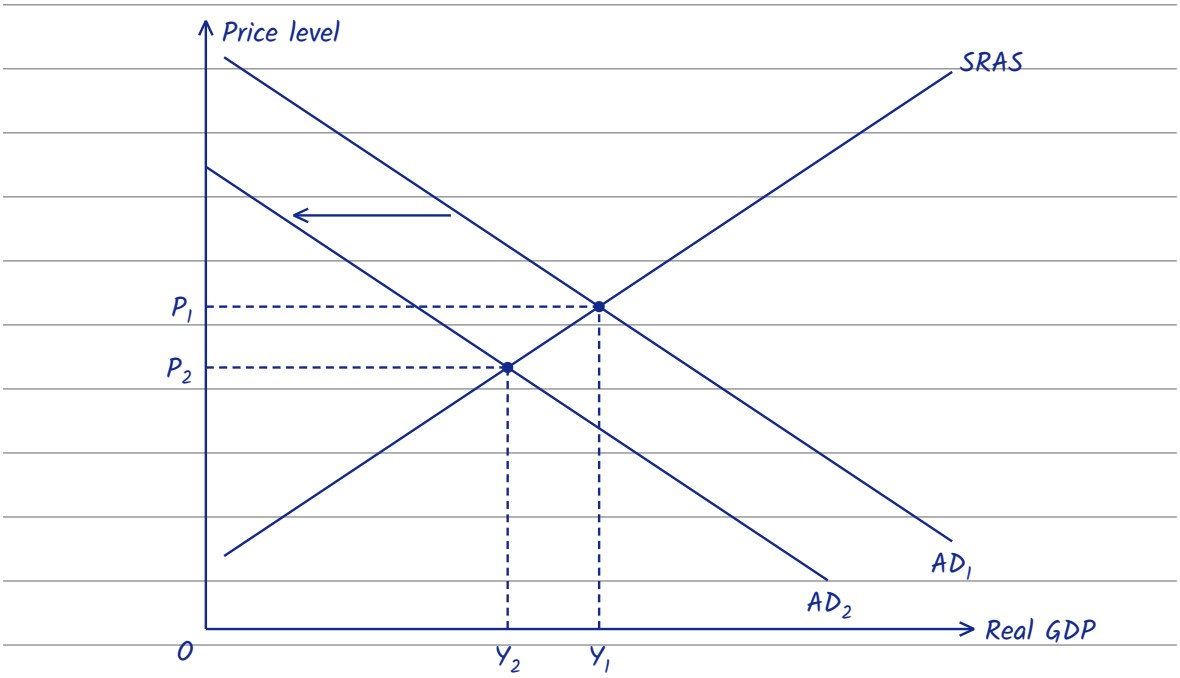
Cost-push inflation happens when firms' costs of production rise, so they raise prices to protect their profit margins. In Diagram 2, SRAS shifts left from $SRAS_1$ to $SRAS_2$, so the price level rises from P_1 to P_2 but real GDP falls from Y_1 to Y_2.

One cause is a rise in wages greater than any rise in labour productivity, so unit labour costs rise. Another is a fall in the exchange rate, which makes imported raw materials and fuel more expensive.

So the key distinction is that with demand-pull inflation output rises with the price level, while with cost-push inflation output falls as the price level rises.

4(b) Monetary policy is the use of interest rates, the money supply and the exchange rate to influence the economy. To correct high inflation, policy is contractionary: the central bank raises interest rates or reduces the growth of the money supply.

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A rise in interest rates raises the cost of borrowing and the reward for saving. Households borrow less for houses and cars, and people with mortgages have less disposable income, so consumption falls. Firms expect lower returns on borrowed money, so investment falls. AD shifts left from AD_1 to AD_2, and the price level falls from P_1 to P_2, reducing demand-pull inflation. Higher interest rates also attract hot money, so the exchange rate appreciates. Import prices fall, which reduces cost-push inflation, and exports become less competitive, which reduces AD further.

However, monetary policy is not always effective. If inflation is cost-push, for example caused by a rise in world oil prices, reducing AD does little to costs; it lowers real GDP from Y_1 to Y_2 and raises unemployment, and higher interest rates raise firms' costs, which may shift SRAS left and add to inflation.

Its effectiveness also depends on how sensitive consumption and investment are to interest rates. If consumer and business confidence is high, or most loans are at fixed rates, spending may hardly fall. There are long time lags (often 18 months or more), so the policy may act too late. Controlling the money supply is difficult because banks can create credit. In an open economy, higher rates may be

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ineffective if capital flows are restricted, and an appreciation may harm exporters. In conclusion, monetary policy is usually effective against demand-pull inflation, especially when the central bank is independent and credible, so that expectations of inflation fall. It is not always effective, particularly against cost-push inflation and when spending is insensitive to interest rates, so it is often combined with fiscal and supply-side policies.