



Rewarding Learning

ADVANCED

General Certificate of Education

2019

Economics

Assessment Unit A2 2

assessing

Managing the Economy in a Global World



AEC21

[AEC21]

THURSDAY 23 MAY, MORNING

TIME

2 hours.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number on the Answer Booklet provided.
Answer **all** questions in Section **A** and **B** and **one** question in Section **C**.

INFORMATION FOR CANDIDATES

The total mark for this paper is 90.

- Section A: 20 marks
- Section B: 40 marks
- Section C: 30 marks

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

ADVICE TO CANDIDATES

You are advised to take account of the marks for each part question in allocating the available examination time. In questions involving calculations, you are advised to show your workings. Quality of written communication will be assessed in Questions **5**, **6(b)**, **(c)** and **(d)**, **7** and **8**. Quantitative skills will be assessed where appropriate.

Section A

Answer all questions (20 marks)

- 1 The table below shows the money supply, the average price level and the number of transactions for an imaginary economy.

Average price level	£300
Money supply	£150,000
Number of transactions	1000

Using the information in the table, calculate the velocity of circulation for this economy. [2]

- 2 On 23rd August 2018, the UK pound was trading on the foreign exchange markets at a rate of £1 to €1.12 and £1 to US\$1.31.

Using the information above, calculate the value of the US dollar in euros. [2]

- 3 The table below shows the production levels of apples and bananas in two countries, if both countries aim to be self-sufficient and divide their resources equally between the production of apples and bananas.

Country	Apples (millions)	Bananas (millions)
Samland	30	30
Masland	15	5
Total	45	35

- (a) With reference to the information in the table above, explain the difference between an absolute advantage and a comparative advantage. [4]

- (b) Using the information in the table, explain why Samland would be happy to trade with Masland at a rate of two apples to one banana. [2]

- 4** In the second quarter of 2018, Foreign Direct Investment (FDI) in the UK was £22,199 million. This figure, which represented 4.24% of UK GDP, meant that the UK maintained its position as the EU's most favoured destination for FDI.

(a) Explain what is meant by Foreign Direct Investment (FDI). [2]

(b) Using the information above, estimate UK GDP for the second quarter of 2018. [2]

- 5** The Global Sugar Alliance has called on the Pakistan government to remove the subsidies it pays to domestic sugar producers. They claim that the subsidies restrict the ability of foreign producers to access Pakistani markets and distort the world price of sugar.

With the aid of an appropriate diagram, analyse the likely impact of removing domestic subsidies on the Pakistani sugar market. [6]

Section B: Case study

Answer all questions (40 marks)

The following passages were compiled in August 2018. Read them carefully and answer the questions which follow.

6 World economy teeters on the brink of trade war

Source 1: Trade war declared between the United States of America and China

On 6th July 2018 the US officially entered into a trade war with China. The US slapped 25% tariffs on more than 800 Chinese products ranging from dishwashers to aircraft tyres with an estimated value of \$34 billion. China immediately responded with tariffs of its own, insisting Donald Trump had started the “biggest trade war in economic history”.

In the classic “tit for tat” response, the US promptly issued a list of additional products it was considering imposing tariffs on, this time to a value of \$200 billion dollars, with President Trump even tweeting that he was “ready to go to 500” – a reference to the total \$500 billion value of US imports of Chinese goods.

The imposition of the tariffs is in response to what Mr Trump sees as the unfair and unsustainable trade in goods position between the US and China, which is illustrated in **Fig. 1** below.

Fig.1 removed due to copyright issues

Fig. 1: US–China trade in goods balance 2006–2017

The declaration of a trade war with China poses significant problems for the rules-based system of world trade, which is overseen by the World Trade Organization (WTO), coming as it does so soon after the imposition by the US of tariffs of 25% and 10%, respectively, on all imports of steel and aluminium.

China regards the first wave of American tariffs as a unilateral violation of global trading rules and has lodged a complaint with the WTO. However, Mr Trump believes that China started the conflict by stealing US intellectual property. He is unafraid of escalating the dispute as he believes he has the upper hand in terms of economic power and is no fan of the world trading system. Indeed, he believes that the US may well be better off withdrawing from the WTO and negotiating trading agreements independently.

Source 2: Could trade war become a currency war?

The trade war raging between China and the US shows signs of spiralling over into a currency war after US president Donald Trump accused Beijing's Central Bank of devaluing the yuan against the US dollar. His comments come after data showed that the yuan had fallen by 5% against the US dollar in the last four weeks. In a tweet, President Trump said, "China, the EU and others are manipulating their currencies and interest rates down while the US dollar strengthens, eroding our big competitive advantage."

The Chinese authorities have denied that they are purposely manipulating the yuan downwards, claiming that its fall in value reflects market forces rather than direct intervention. A Beijing spokesman stated that "the fall in the value of the yuan against the dollar reflects the predicted negative impact to our economy of trade restrictions in the US. As well as this, markets are expecting US monetary authorities to continue the policy of raising interest rates. Indeed, one could argue that it is not the actions of the People's Bank of China that has devalued the yuan, but rather the actions of the US authorities".

The accusation of currency manipulation by the Chinese government comes amid threats by the US president to impose tariffs on all Chinese imports into the US and begin a full-scale trade war.

The game being played out by Washington and Beijing is like a high-stakes poker game! Each time the US raises its stake by adding new tariffs, China responds with an equal amount of import duties on American goods. Both sides want the other to blink first. However, the difficulty for Beijing is that while the US bought \$505 billion of goods from China last year, the Chinese only bought \$130 billion worth of US goods. This means that Beijing will run out of imports to tax long before Washington does.

An obvious alternative to further tariffs is to make Chinese goods more competitive by weakening the yuan and so counteracting the impact of US tariffs. It is little wonder then that the Beijing authorities are actively considering such an option, even if there is no solid proof that they have already initiated the policy.

Source 3: Who gains and who loses from a trade war?

While the rhetoric of a trade war may be popular with many of those who voted for Mr Trump, it is much less popular among economists. Indeed, many in Trump's own Republican Party have traditionally favoured free trade.

Supporters of Mr Trump point out that the US trade deficit is unsustainable and represents a huge leakage from the US economy. They argue that the US is such a large free trade area itself that it does not need to trade internationally in the same way as smaller economies do and, as such, a trade war will be easy for the US to win.

However, analysis of the tariffs on steel and aluminium by the consultancy firm Trade Solutions has estimated that while the tariffs might create as many as 33 000 additional jobs in metal production, they will destroy 179 000 jobs in industries which use these metals in their production processes. They also point out that the tariffs will ultimately lead to higher prices for consumers and put pressure on the Federal Reserve to raise interest rates, which in turn could knock as much as 1% off GDP growth over the next few years.

Sinead Douglas, chief economist at Trade Solutions, stated: "The US has long been the engine of global trade and growth, but in Mr Trump they have a dangerous driver. His reckless actions and total disregard for the hard-fought world trading order risks harming not only the US's trading partners but also US consumers, producers and ultimately the government itself."

- (a) Describe the trend in the balance of trade in goods between the US and China from 2006 to 2017. [4]
- (b) With the aid of an appropriate diagram, analyse how the imposition of "trade restrictions in the US and an expectation that US monetary authorities will continue the policy of raising interest rates" could cause a fall in the value of the yuan against the US dollar. [9]
- (c) Critically examine the likely impact on the Chinese economy of a policy of suppressing the value of the yuan against the US dollar. [12]
- (d) Evaluate the view that a trade war is bad for US consumers, producers and ultimately the government itself. [15]

Section C: Essay section

Answer one question (30 marks)

- 7** While once considered a byword for economic and social progress, and deemed to be an unstoppable force for good, the term globalisation has become tarnished in recent years. In fact, it is increasingly blamed for a wide range of economic problems including income inequality, cultural erosion and political instability.

Critically examine the impact of globalisation on the UK economy.

[30]

- 8** A 2018 report by the Institute for Fiscal Studies claimed that the Chancellor would have to impose tax rises of approximately £41 billion per year to meet his target of balancing the public finances by 2025. The report came at a time when there was growing pressure on the Chancellor to abandon his target for a balanced budget and increase the money allocated to key public services such as health, policing and education.

Critically examine the view that governments should always run balanced budgets.

[30]

THIS IS THE END OF THE QUESTION PAPER

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

Question
number

1

Fisher equation: $MV = PT$, so $V = PT \div M$

$$V = (£300 \times 1000) \div £150,000 = £300,000 \div £150,000 = 2$$

2

£1 = €1.12 and £1 = \$1.31, so \$1.31 = €1.12

$$\$1 = 1.12 \div 1.31 = €0.85 \text{ (to 2 d.p.)}$$

3 (a)

A country has an absolute advantage in a good if it can produce more of it with the same resources, i.e. at a lower cost than its rivals. With equal resources Samland produces 30m apples against 15m in Masland and 30m bananas against 5m, so Samland has an absolute advantage in both goods.

A country has a comparative advantage if it can produce a good at a lower opportunity cost than its rival. In Samland 1 banana costs 1 apple, but in Masland 1 banana costs $15/5 = 3$ apples, so Samland has the comparative advantage in bananas. In Masland 1 apple costs only $1/3$ of a banana compared with 1 banana in Samland, so Masland has the comparative advantage in apples.

3 (b)

For trade to be beneficial, a country must obtain the imported good at a lower opportunity cost than producing it domestically. Samland specialises in bananas; at home 1 apple costs it 1 banana, but by trading at 2 apples to 1 banana each apple costs only half a banana, so Samland gains (and the rate lies between the two countries' opportunity costs of 1 and 3 apples per banana, so Masland gains too).

4 (a)

FDI is a net inflow of investment by a firm or investor from one country to acquire a lasting management interest (10% or more of the voting stock) in an

enterprise operating in another country, e.g. building a factory or buying a UK firm. The UK received £22,199 million of FDI in Q2 2018.

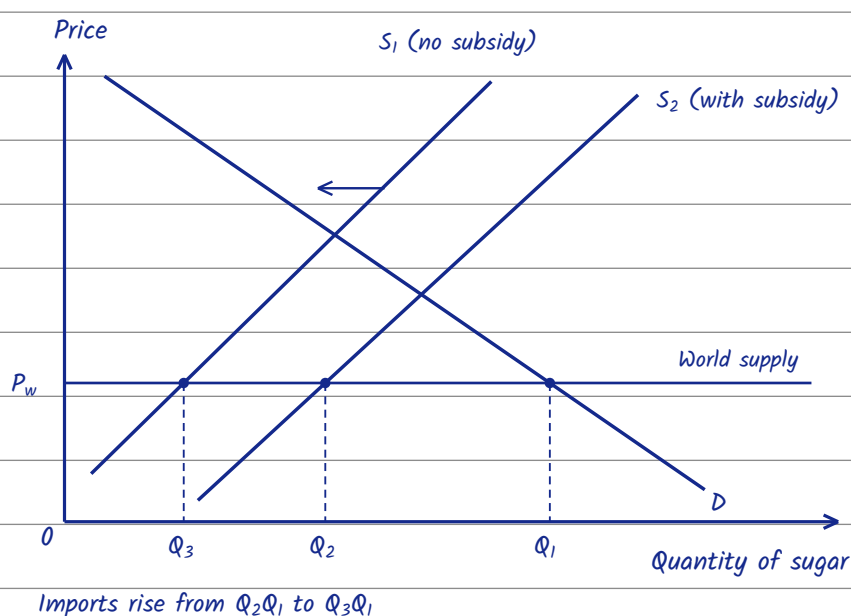
4 (b)

$£22,199\text{m} = 4.24\% \text{ of GDP}$, so $\text{GDP} = £22,199\text{m} \div 4.24 \times 100 = £523,561.32$ million (about £523.6bn)

5

A domestic subsidy is a payment from the government to domestic producers that reduces their costs of production and so makes them more competitive against foreign producers. Pakistan's subsidy shifts the domestic supply curve of sugar to the right from S_1 to S_2 .

Assuming Pakistan is a price taker on the world market, sugar is available at the world price P_w . With the subsidy, domestic firms supply $0Q_2$, demand is $0Q_1$ and imports are only Q_2Q_1 . Removing the subsidy raises domestic producers' marginal costs, so the domestic supply curve shifts left from S_2 to S_1 , as the diagram shows:



Domestic output falls from $0Q_2$ to $0Q_3$. Since consumers still buy $0Q_1$ at P_w , imports rise from Q_2Q_1 to Q_3Q_1 , which is exactly the improved market access the Global Sugar Alliance wants for foreign producers. Pakistani sugar producers lose revenue ($P_w \times Q_2Q_3$) and subsidy income, so profits and producer surplus fall;

the least efficient firms may close, causing unemployment among sugar workers and farmers. The government saves the subsidy spending, which has an opportunity cost, and the Pakistani current account worsens as import spending rises. Resources are reallocated towards industries where Pakistan has a comparative advantage, raising allocative efficiency. However, Pakistan is a large sugar producer, so the extra demand for imports and reduced subsidised exports may raise the world price slightly, so domestic consumers could pay a little more and part of the fall in domestic output would be offset. The size of the fall in domestic output depends on the price elasticity of supply and the size of the subsidy.

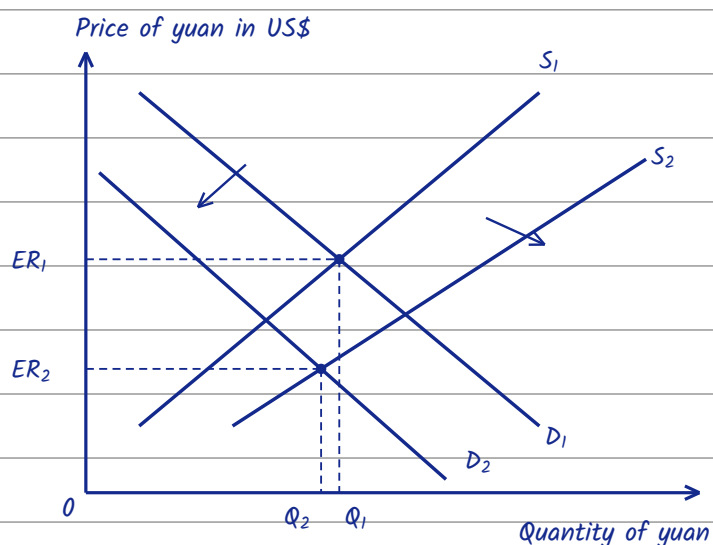
6 (a) Fig. 1 shows the US had a trade in goods deficit with China in every year from 2006 to 2017, and the deficit generally widened. It increased from \$234bn in 2006 to \$375bn in 2017, a rise of \$141bn or about 60% $((375 - 234) \div 234 \times 100 = 60.3\%)$. The deficit grew every year except 2009, when it narrowed during the global recession, and 2016.

6 (b) The value of the yuan against the dollar is determined by the demand for and supply of yuan on the foreign exchange market under a floating (or managed) exchange rate system. Demand for yuan comes from foreigners buying Chinese exports and Chinese assets; supply comes from Chinese residents buying imports and foreign assets.

Trade restrictions: US tariffs of 25% on 800 Chinese products (\$34bn, possibly extending to \$200bn) raise the dollar price of Chinese goods. US consumers and firms will, *ceteris paribus*, demand fewer Chinese exports, especially if demand is price elastic, so US importers need fewer yuan. The demand curve for yuan shifts left from D_1 to D_2 . Expectations of a weaker Chinese economy (the 'predicted negative impact') may also reduce FDI into China.

Higher US interest rates: if markets expect the Federal Reserve to keep raising interest rates, the relative return on US bank deposits and bonds rises. Hot

money flows out of Chinese banks into US banks, so investors sell yuan to buy dollars, shifting the supply of yuan right from S_1 to S_2 . Speculators expecting a fall in the yuan will sell yuan, adding to this.



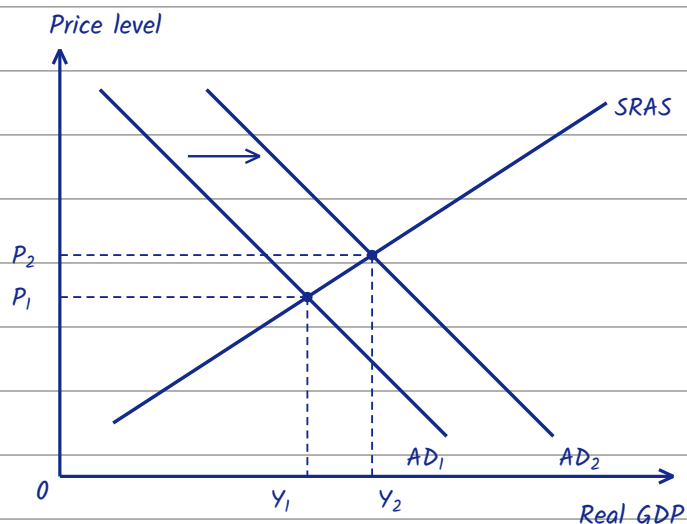
As the diagram shows, the combination of lower demand and higher supply causes the exchange rate of the yuan to fall from ER_1 to ER_2 , consistent with the 5% fall against the dollar in four weeks reported in Source 2. The effect on the quantity of yuan traded is ambiguous, depending on the relative size of the shifts, but the fall in price is certain, which supports Beijing's claim that the fall reflects market forces and US policy rather than intervention by the People's Bank of China.

6 (c)

Suppressing the yuan means the People's Bank of China selling yuan and buying dollars (adding to foreign reserves) or cutting interest rates to keep the exchange rate below its market value. Source 2 suggests Beijing is considering this to counteract US tariffs.

Balance of payments and growth: a weaker yuan makes Chinese exports cheaper in dollars and US imports dearer in China. If the Marshall-Lerner condition holds (the sum of the PEDs for exports and imports exceeds 1), China's current account surplus with the US widens, perhaps after a J-curve delay. Higher net

exports ($X - M$) increase aggregate demand, shifting AD right from AD_1 to AD_2 , so real GDP rises from Y_1 to Y_2 through the multiplier, raising employment, as the diagram shows:



Higher demand and profits encourage investment by Chinese firms (the accelerator), and cheaper Chinese labour and assets in dollar terms may attract more FDI, supporting long-run growth and development.

However, the price level rises from P_1 to P_2 . There is demand-pull inflation, and cost-push inflation because imported food, oil and raw materials cost more in yuan. This reduces the purchasing power and real incomes of Chinese consumers, may increase wage demands and harms living standards, so the distribution of income shifts from consumers to exporters. Holding the yuan down also requires low interest rates or large reserves; it could fuel asset bubbles and capital outflows, and foreign demand for yuan assets falls as their returns in dollars fall. Faster industrial growth also increases pollution and congestion.

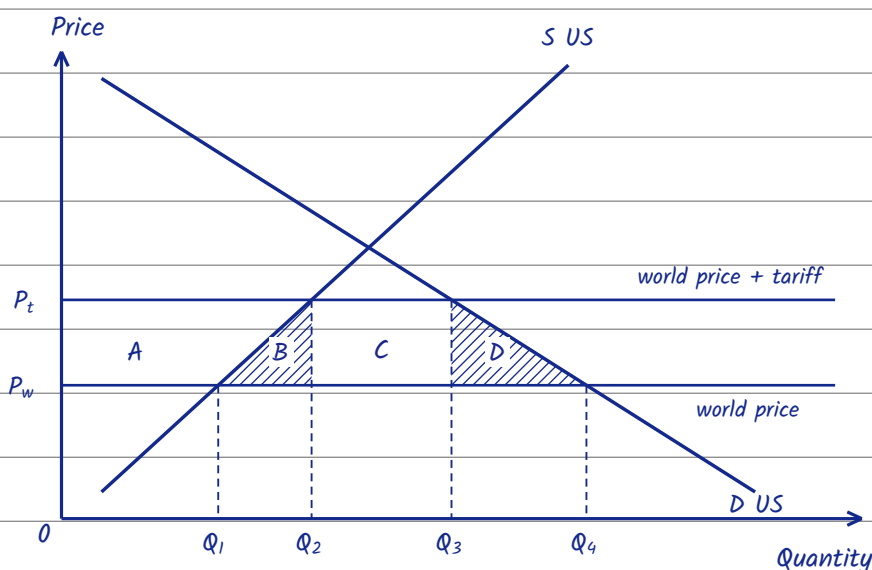
Evaluation: the impact depends on the price elasticities of demand for Chinese exports and imports. Since many Chinese exports are inputs in global supply chains using imported components, the gain in competitiveness is reduced. The scale also matters: a 5% fall only partly offsets a 25% tariff. Most importantly, the US would almost certainly retaliate, as President Trump's tweets suggest, by labelling China a currency manipulator and imposing tariffs on all \$505bn of

Chinese imports, wiping out the export gains. Overall, suppressing the yuan would give China a short-run boost to exports and growth, but at the cost of inflation, lower real incomes and an escalating currency war, so it is unlikely to benefit China in the long run.

6 (d)

A trade war is when countries impose retaliatory protectionist measures, such as tariffs and quotas, on each other's goods. The US has imposed 25% tariffs on \$34bn of Chinese goods and 25% and 10% tariffs on steel and aluminium, and China has retaliated.

Consumers: a tariff raises the price of imports from the world price P_w to P_t . As the diagram shows, US consumption contracts from Q_4 to Q_3 , domestic production rises from Q_1 to Q_2 and imports fall from Q_1Q_4 to Q_2Q_3 .



Tariff: imports fall from Q_1Q_4 to Q_2Q_3 ; $B + D =$ deadweight loss

Consumers lose consumer surplus, pay higher prices and have less choice; area C becomes tariff revenue and areas B and D are deadweight welfare losses, so the US loses the gains from trade based on comparative advantage. The tariffs are regressive, hitting low-income households hardest.

Producers: protected firms in metal production gain, with Trade Solutions estimating 33,000 extra jobs. However, firms that use steel and aluminium face higher costs, and 179,000 jobs are expected to be lost, a net loss of 146,000. US

firms that outsource production to China or buy Chinese components face higher costs and become less competitive. China's retaliatory tariffs, e.g. on US soybeans and cars, reduce US exports, and a currency war (a weaker yuan) would further damage US competitiveness.

Government: higher prices create inflationary pressure, forcing the Federal Reserve to raise interest rates, which could cut GDP growth by up to 1%. Lower growth and employment reduce tax revenue and raise welfare spending, worsening the budget deficit, and make it harder to meet the macroeconomic objectives of growth, low unemployment and low inflation. Undermining the WTO's rules-based system damages international relations, as the Smoot-Hawley Tariff Act of 1930 showed, when retaliation deepened the Great Depression.

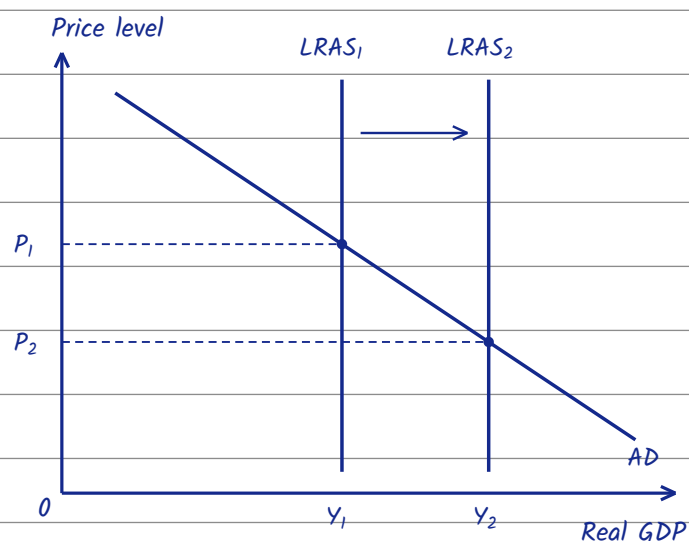
On the other hand, Trump's supporters argue that the US is a very large economy, with trade only about 27% of GDP, so it is less dependent on trade than smaller economies. Since China sold the US \$505bn of goods but bought only \$130bn, China has more to lose and will 'run out of imports to tax'. The threat of a trade war may force China to stop stealing intellectual property and remove covert trade barriers, benefiting US producers in the long run. Tariffs may protect strategic or senile industries such as steel, reduce the 'unsustainable' deficit of \$375bn and raise tariff revenue, and the trade war may bring political gains for the administration among its voters.

Evaluation: the effect depends on the time scale. In the short run consumers and steel-using producers clearly lose; the long-run gains only occur if China makes concessions. It depends on the price elasticity of demand for imports: many Chinese goods have few domestic substitutes, so US consumers bear most of the tariff. It depends on the scale of retaliation and whether the dispute escalates into a currency war. The net job losses and the 1% fall in growth suggest the costs outweigh the benefits. Overall, I agree that a trade war is likely to be bad for US consumers, most producers and ultimately the government, although a short, limited one used as a negotiating threat could bring some gains if it forces China to change its trade practices.

7

Globalisation is the process by which national economies become increasingly integrated and interdependent through the growth of international trade in goods and services, flows of capital (FDI and portfolio investment), movement of labour and the spread of ideas, technology and culture. It has been driven by falling transport costs (containerisation), developments in ICT, trade liberalisation through the WTO and the EU single market, the growth of multinational corporations (MNCs) and the opening up of China and Eastern Europe. The UK, as a very open economy with exports of around 30% of GDP, has been strongly affected.

Impact on consumers. Globalisation lets the UK specialise according to comparative advantage, for example in financial and business services, and import goods produced more cheaply elsewhere. UK consumers have access to a much wider range of goods and services, increasing welfare. Competition from low-wage countries such as China keeps prices low, increasing consumer surplus and real incomes. Cheaper imports reduce firms' costs and inflation, shifting SRAS to the right, and specialisation, FDI and new technology raise productive capacity, shifting LRAS to the right. As the diagram shows, this raises real GDP from Y_1 to Y_2 and lowers the price level from P_1 to P_2 .



Lower inflation has in turn helped keep interest rates lower than they would

otherwise have been, encouraging consumption and investment.

Impact on firms. Globalisation gives UK firms a larger potential market, so they can grow and benefit from economies of scale, lowering average costs and prices and raising profits. Firms such as Dyson have off-shored production to lower-cost countries, improving profit margins and competitiveness, and higher profits can fund investment. Global financial markets give UK firms and consumers access to more sources of funds at lower interest rates. The spread of ideas allows UK firms to adopt successful foreign business practices such as Total Quality Management and just-in-time production, raising productivity.

Impact on workers and government. The UK attracts large inflows of FDI, for example Nissan in Sunderland and Tata's ownership of Jaguar Land Rover, creating jobs, growth, skills and tax revenue. Inflows of migrant labour fill vacancies that UK citizens do not want or lack the skills for, such as in the NHS and agriculture, and help keep wage rates and cost-push inflation down. There are cultural benefits too, as UK citizens travel more and experience other cultures, increasing cultural diversity.

The costs of globalisation. Many UK manufacturing firms, for example in textiles, steel and shipbuilding, could not compete with low-wage countries and closed, causing structural and regional unemployment in areas such as the North East and lower growth there. Off-shoring and migration may have reduced jobs and depressed wages for unskilled UK workers. The share of GDP going to capital has risen relative to labour, increasing income and wealth inequality, as gains went mostly to owners of capital and the highly skilled. The UK runs a large current account deficit, partly due to imports of manufactured goods, a leakage from the circular flow that reduces growth and employment.

High immigration has put strain on public services such as health, education and housing in some areas, and has been linked to weaker social cohesion, the rise of far-right parties such as Britain First and the vote for Brexit. Globalisation has reduced the ability of the UK government to manage the macroeconomy, since it is hard to set tax or interest rates very different from trading partners,

and MNCs off-shore profits to avoid tax, reducing government revenue. Global financial integration spreads problems quickly: the credit crunch started in the US sub-prime market in 2007 but rapidly caused the 2008 to 2009 UK recession and the rescue of RBS and Lloyds. Shipping goods long distances increases carbon emissions, diseases such as swine flu spread faster, and cultural imperialism may erode British cultural identity.

Evaluation. The overall impact depends on which group is considered. UK consumers, owners of capital, skilled workers and service sectors such as the City of London have gained greatly, whereas unskilled workers in former manufacturing regions have lost, so the main problem is the distribution of the gains rather than their size. It depends on the time scale: the costs of structural change are concentrated in the short run, while the gains in efficiency, lower prices and growth emerge in the long run, provided workers are occupationally mobile. It also depends on government policy: investment in education, retraining and regional policy, and a fairer tax and benefit system, would allow the losers to share in the gains. Many of the problems, such as tax avoidance and environmental damage, are market failures that require international cooperation rather than less globalisation. Finally, some problems blamed on globalisation, such as the decline of manufacturing jobs, are also caused by technological change and automation, so protectionism would not reverse them and would raise prices.

In conclusion, globalisation has had a positive overall impact on the UK economy, raising living standards through lower prices, greater choice, FDI and higher productivity, and most economists estimate that the aggregate gains outweigh the losses. However, the gains have been unevenly distributed, contributing to inequality, regional decline and political instability, which explains why the term has become tarnished. The best response is not to retreat from globalisation but for the UK government to manage it with policies that share the benefits more widely.