

A-level ECONOMICS

Paper 2 National and International Economy

Tuesday 2 June 2020

Morning

Time allowed: 2 hours

Materials

For this paper you must have:

- an AQA 12-page answer book
- a calculator.

Instructions

- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Write the information required on the front cover of your answer book.
The **Paper Reference** is 7136/2.
- In **Section A**, answer **EITHER** Context 1 **OR** Context 2.
- In **Section B**, answer **ONE** essay.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 80.
- There are 40 marks for **Section A** and 40 marks for **Section B**.

Advice

- You are advised to spend 1 hour on **Section A** and 1 hour on **Section B**.

Section A

Answer **EITHER** Context 1 **OR** Context 2.

EITHER

Context 1

Total for this context: 40 marks

Unemployment and the labour market

Study **Extracts A, B and C** and then answer **all** parts of Context 1 which follow.

Extract A

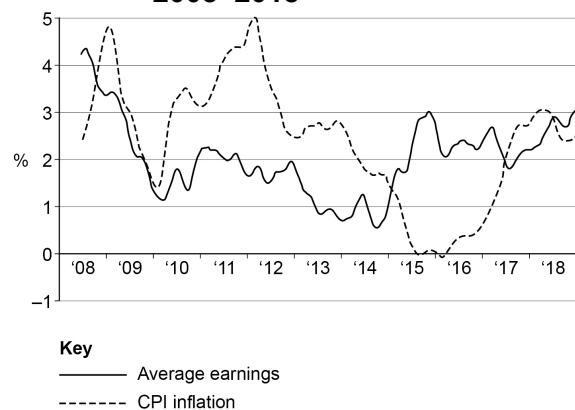
Figure 1: Unemployment and underemployment rates in the UK, 2007–2018

Years	Unemployment rate (%)	Underemployment rate (%)
2007–08	5.5	7.3
2009–10	7.8	9.6
2011–12	8.0	10.2
2013–14	6.9	10.1
2015–16	5.1	8.8
2017–18	4.2	7.8

Note: Underemployment is where people are working fewer hours than they wish, or in jobs that do not reflect their skills or training

Source: ONS, 2018

Figure 2: Growth in average earnings and CPI inflation rate in the UK, 2008–2018



Source: ONS, 2018

Extract B: Unemployment and real wages

According to a recent study on wage growth, the youngest worker today would need to wait nearly 80 years to see the average real wage in the UK double from its current level. At just 4.2%, unemployment in the UK is at its lowest level in decades. It should be the best of times, but data from the Office for National Statistics (ONS) show that the percentage of people who are 'underemployed', often working on zero-hours contracts, is greater than it was during the financial crisis of 2007–08. Some claim this is the true cause of poor real wage growth. 1
5

Supply-side reforms to labour markets are meant to boost productivity but can be damaging for some workers. Unregulated labour markets can lead to inequality and poor pay, which also reduces government tax revenue. Workers who are only temporarily employed can experience a lack of stability and firms may have little incentive to invest in human capital. Consequently, these workers may not get the opportunity to develop new skills. Firms may also face higher costs from replacing workers who leave because they feel undervalued. 10

It can be argued that supply-side reforms have gone too far in creating a highly flexible workforce and the government needs to do more in terms of protecting the nation's workers. There are calls for some restoration of trade union powers, more rights for workers on zero-hours contracts and measures to raise pay to ensure that workers feel the benefits of employment. 15

Source: News reports, 2018

Extract C: Free market, supply-side labour market reforms

Free market supply-side reforms often focus on either encouraging individuals to take up work by making it more attractive, or by making it more difficult for people to remain on unemployment-related benefits. A feature of recent government supply-side policy has been to create and maintain flexible working practices. The Confederation of British Industry (CBI) argues that “the UK’s flexible labour market is an invaluable strength of our economy which should be protected”. The UK’s employment rate is the highest since recent records began in 1971, and 97% of firms say the UK’s flexible labour market is vital to improving firms’ competitiveness. 1 5

Having a flexible workforce, which can respond quickly to changes in demand, may benefit both businesses and workers. There is a growing need for workers to have more flexibility, whether to allow them to balance work with such things as childcare, study commitments or as an alternative income when work in their preferred occupation is unavailable. Some labour market analysts also point to flexible labour markets as one of the key reasons that, after the recession of 2008–09, unemployment did not reach the levels it did in the recessions of the 1980s and 1990s. 10 15

Some point to the fact the UK has the least-regulated labour market in Europe. Hiring and firing staff is easier than in countries such as France, where the difficulty of getting rid of unproductive workers makes firms more cautious about employing someone in the first place. Improving workers’ productivity is the key to increasing real GDP and real wage rises. Having a flexible workforce allows the UK to meet the challenges of a dynamic global economy. It not only helps keep unemployment low, but also helps achieve other macroeconomic objectives. 20

Source: News reports, 2018

0 1 Using the data in **Extract A** (Figure 1), calculate the mean unemployment rate for the UK from 2007–08 to 2017–18. Give your answer to **one** decimal place. [2 marks]

0 2 Explain how the data in **Extract A** (Figure 2) show that the UK has had poor real wage growth since 2008. [4 marks]

0 3 **Extract C** (line 19) states: ‘Improving workers’ productivity is the key to increasing real GDP’.

With the help of a diagram, explain how improving productivity should lead to rising real GDP. [9 marks]

0 4 **Extract B** (lines 13–14) states: ‘It can be argued that supply-side reforms have gone too far in creating a highly flexible workforce and the government needs to do more in terms of protecting the nation’s workers’.

Using the data in the extracts and your knowledge of economics, evaluate the view that free market supply-side reforms to labour markets are beneficial to the UK economy. [25 marks]

Turn over ►

Do **not** answer Context 2 if you have answered Context 1.

OR

Context 2

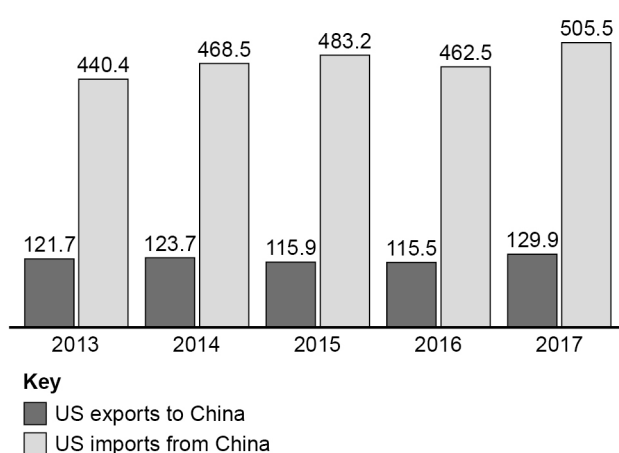
Total for this context: 40 marks

Trade wars and protectionism

Study **Extracts D, E and F** and then answer **all** parts of Context 2 which follow.

Extract D

Figure 3: US trade in goods with China (\$bn), 2013–2017



Source: US Census Bureau, 2018

Figure 4: US trade in goods with China (\$bn), 2018

Month	Exports	Imports
January	9.8	45.8
February	9.8	39.0
March	12.4	38.3
April	10.3	38.2
May	10.6	43.8
June	11.1	44.6
July	10.3	47.1
August	9.3	47.9
September	9.8	50.0
October	9.1	52.2
November	8.7	46.6
December	9.2	46.0
TOTAL	120.4	539.5

Source: US Census Bureau, 2019

Extract E: US and China trade wars

The International Monetary Fund (IMF) has warned that a trade war between the US and China risks making the world a 'poorer and more dangerous place' and it has lowered its forecast for global growth this year and next. The IMF's chief economist said that further trade barriers would hit households, businesses and the wider economy. Downgrades to global growth also reflected predictions of a slower expansion in the eurozone as well as problems in a number of emerging economies.

1

China recently announced new trade tariffs on \$60bn of US goods, including products such as liquefied natural gas, produced in states loyal to the US President, Donald Trump. In a tweet, Mr Trump warned that 'there will be great and fast economic retaliation against China if our farmers, ranchers and/or industrial workers are targeted'. US tariffs on \$200bn of Chinese imports came into effect in September.

10

The US and China's escalation of trade tariffs is expected to hit growth in both countries in 2019, when the boost from President Trump's sweeping tax cuts announced in 2017 will also start to fade. The IMF warned that the world faced further damage to growth if the US followed through on a threat to impose a 25% tariff on all imported cars. Additional tariffs would raise prices, hit business confidence and discourage investment. Unless world leaders respond by working together to raise living standards, improve education and reduce inequality, world development will be seriously hampered.

15

Source: News reports, 2018

Extract F: Protectionism in Brazil

Protectionism is on the rise this year, but those who support free trade say increased tariffs will lead to higher prices, less choice and lower living standards. Others maintain that protectionism can help economic development. Roberto Azevedo, Director General of the World Trade Organization (WTO), concedes that trade barriers which keep foreign rivals out will encourage domestic industries to grow. 1
5

Many countries in Latin America are in favour of tariffs to protect their infant industries. Tariffs can support the growth of domestic firms that may otherwise be crushed by foreign competition. Much of modern Brazil was built with the help of protectionist policies. Since the 1950s, foreign companies have been motivated to set up production in Brazil to avoid high tariff barriers. Government subsidies have also been used, for example, to encourage major car manufacturers, including Volkswagen, Ford, Fiat and Mercedes, to set up factories in the country. This inward investment has created jobs, growth and improved living standards for the Brazilian population. 10

In Brazil, many uncompetitive industries, from textiles to computers, were able to grow due to protectionist trade policies that made foreign goods too expensive to import. Current tariffs on imported trucks or buses more than double the original price. The price of an Apple iPhone in Brazil is on average 50% more than in the US, again due to tariffs. Some argue that many developed countries that now champion free trade, only achieved economic prosperity through protectionist policies. They believe free trade is a way in which developed economies keep developing nations poor. 15
20

However, the Director of the Brazilian branch of the International Chamber of Commerce (ICC), an organisation that supports free trade, argued that 'because Brazil is such a closed economy, it ends up having very low productivity compared to more developed countries. If you are more competitive you become more productive – and for that you need to be more open and more integrated into global supply chains'. 25

Source: News reports, 2018

0 5 Using the data in **Extract D** (Figure 4), calculate how much was spent by the US on imports from China for every \$1 it received from exports to China in 2018. Give your answer to **two** decimal places. [2 marks]

0 6 Explain how the data in **Extract D** (Figure 3) **and** (Figure 4) show why the US may have decided to implement protectionist policies. [4 marks]

0 7 **Extract E** (lines 10–11) states: 'US tariffs on \$200bn of Chinese imports came into effect in September.'

With the help of a diagram, explain how the imposition of a tariff may affect the volume of imports.

[9 marks]

0 8 **Extract F** (lines 17–19) states: 'Some argue that many developed countries that now champion free trade, only achieved economic prosperity through protectionist policies.'

Using the data in the extracts and your knowledge of economics, assess the view that developing economies, such as Brazil and China, should pursue protectionist policies to achieve greater economic development.

[25 marks]

Turn over ►

Section B

Answer **one** essay from this section.

Each essay carries 40 marks.

EITHER**Essay 1**

In 2017, the UK's annual budget deficit was 2.3% of GDP, the lowest level since 2001. In 2017, the UK's deficit on the current account of the balance of payments fell to 3.3% of GDP, the lowest level since 2011.

0	9
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Explain the possible causes of a falling budget deficit.

[15 marks]

1	0
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To what extent do you agree that reducing the budget deficit is more important to the UK's macroeconomic performance than reducing the current account deficit on its balance of payments? Justify your answer.

[25 marks]

OR**Essay 2**

During 2018, the UK experienced an annual growth rate of 1.4%, an unemployment rate of around 4.1%, inflation close to target at 2.5% and a reduced current account deficit on the balance of payments. However, in November 2018, the Bank of England warned that economic shocks could damage the UK's prosperity.

1	1
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Explain how demand-side **and** supply-side shocks might increase unemployment in an economy.

[15 marks]

1	2
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Evaluate the view that the main objectives of UK government macroeconomic policy can be achieved without conflicting with each other.

[25 marks]

OR

Essay 3

In 2015, Lithuania joined the eurozone, adopting the euro as its currency. Since then, the euro has appreciated by more than 15% against the pound sterling. Some have argued that this will reduce economic growth in Lithuania and other countries within the eurozone.

1	3
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Explain how an appreciation of its currency is likely to affect a country's rate of economic growth.

[15 marks]

1	4
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Evaluate the costs and benefits for a country of joining a currency union, such as the eurozone.

[25 marks]

END OF QUESTIONS

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2 0 6 A 7 1 3 6 / 2

Question
number

0 1

$$\text{Mean} = (5.5 + 7.8 + 8.0 + 6.9 + 5.1 + 4.2) \div 6$$

$$= 37.5 \div 6 = 6.25$$

Mean unemployment rate = 6.3% (to one decimal place)

0 2

Real wage growth is the growth of earnings adjusted for inflation, so it is roughly the rate of growth of average earnings minus the CPI inflation rate. Real wages only rise when earnings grow faster than prices.

Figure 2 shows that for most of the period, 2009 to 2014 and again in 2017 to 2018, CPI inflation was above the growth in average earnings, so real wages were falling. From 2009 to 2014 inflation was on average more than 1 percentage point above earnings growth, and in late 2011 inflation peaked at about 5% while earnings grew by only about 2.9%, a fall in real wages of around 2%. Even when earnings growth peaked at about 4.3% in 2008, inflation was only a little lower at about 2.5%. Real wages only grew in 2015 to 2016, when inflation was close to 0%. Because these price rises compound, the purchasing power of the average wage in 2018 is likely to be no higher, and possibly lower, than in 2008, which is poor real wage growth.

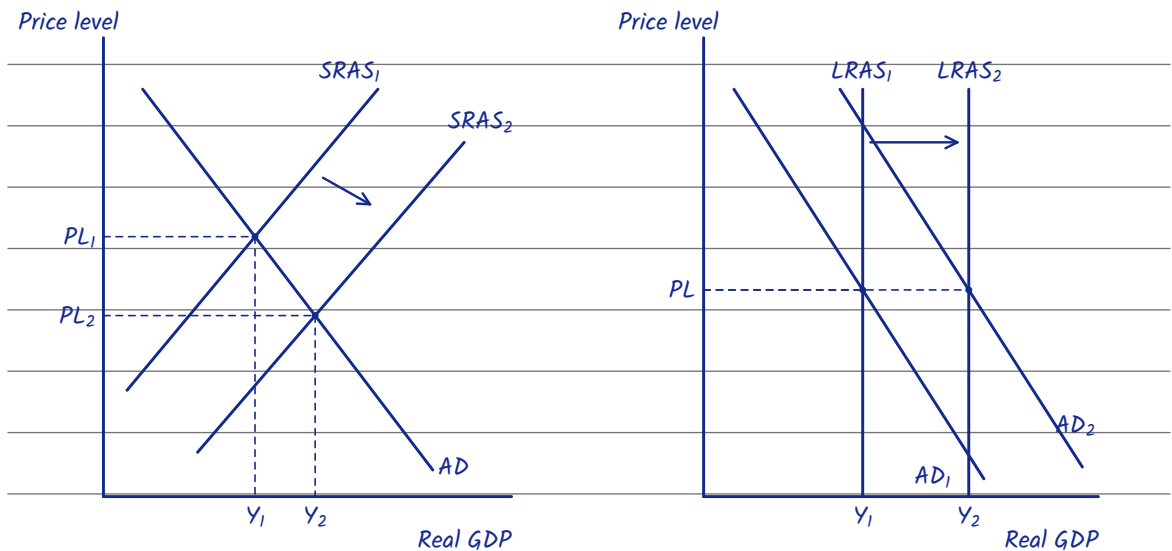
0 3

Productivity is output per unit of input, usually measured as output per worker per hour. Real GDP is the value of all goods and services produced in an economy in a year, adjusted for inflation, so it measures the volume of output.

Productivity can rise because firms invest in physical capital, such as better machinery and technology, or in human capital, through training and education, so each worker can produce more in the same time. Labour market flexibility, as Extract C suggests, can also help firms to use labour more efficiently.

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Question
number



In the short run, higher productivity means that, for a given wage, labour costs per unit of output fall. Lower unit costs mean firms are willing to supply more at every price level, so SRAS shifts to the right from $SRAS_1$ to $SRAS_2$, as shown in the left-hand diagram. The equilibrium moves down the AD curve, so real GDP rises from Y_1 to Y_2 and the price level falls from PL_1 to PL_2 . A lower price level also means that any given nominal GDP is worth more in real terms.

In the long run, higher productivity increases the economy's productive capacity, the maximum output it can produce when all resources are fully employed. This shifts LRAS to the right from $LRAS_1$ to $LRAS_2$ (equivalently, the PPF shifts outwards). As shown in the right-hand diagram, if AD also grows, real GDP can rise from Y_1 to Y_2 without inflationary pressure, so the growth is sustainable.

Higher productivity also boosts AD. Lower unit costs make UK goods more price competitive, so exports rise and imports fall, increasing $(X - M)$. Rising real wages, as workers are paid for their higher marginal revenue product, raise consumption, and higher profits encourage further investment. Through the multiplier these injections cause a larger final rise in real GDP. Therefore, as Extract C argues, improving productivity raises real GDP both by lowering costs in the short run and by expanding capacity in the long run.

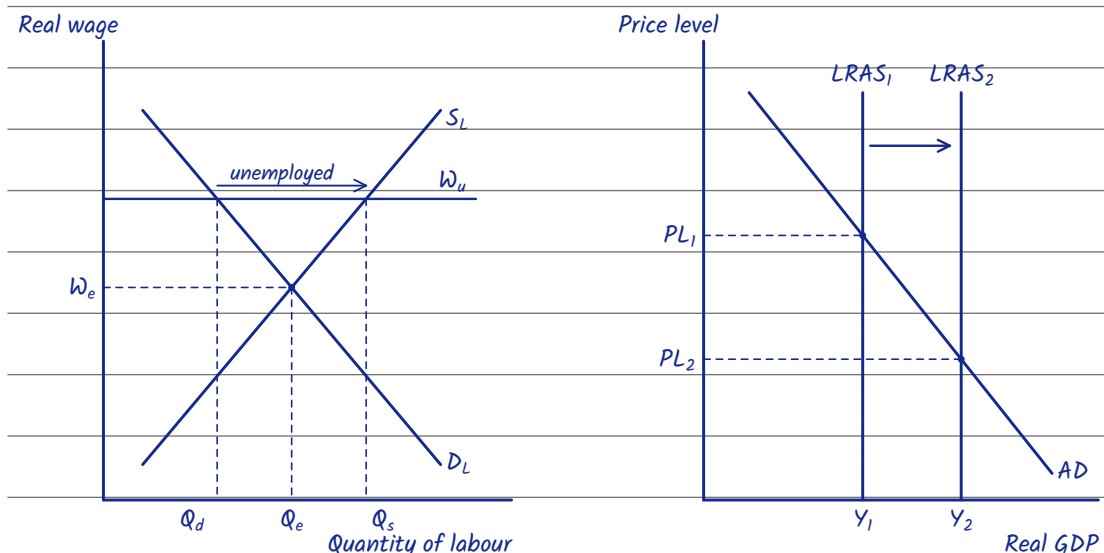
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Free market supply-side reforms are policies that aim to increase the productive capacity of the economy (shift LRAS to the right) by making markets, here the labour market, work more freely and flexibly with less government intervention.

Examples include reducing trade union power, deregulating employment law to make hiring and firing easier, allowing zero-hours and temporary contracts, cutting income tax rates and reducing or tightening unemployment-related benefits.

The main benefit is lower unemployment. Reducing the power of trade unions limits their ability to push wages above the market-clearing level. As the left-hand diagram shows, a wage of W_u above the equilibrium W_e creates real-wage unemployment of $Q_s - Q_d$. If reforms allow wages to fall to W_e , firms employ more workers and the labour market clears. Cutting benefits and income tax increases the gap between income in and out of work, increasing the incentive to take a job, which reduces voluntary and frictional unemployment.

Extract C notes that the UK's employment rate is the highest since records began in 1971, and Figure 1 shows unemployment fell from 8.0% in 2011 to 2012 to just 4.2% in 2017 to 2018. Extract C also suggests that flexibility is a key reason why unemployment after the 2008 to 2009 recession did not reach the levels of the 1980s and 1990s.



Second, flexible labour markets can raise growth and lower inflation. Because firms can easily adjust their workforce to changes in demand, the risk of hiring is lower, so they are more willing to employ, unlike in France where the difficulty of firing unproductive workers makes firms cautious (Extract C). Lower labour

costs per unit reduce costs of production, shifting SRAS right and reducing cost-push inflation. As more people enter the labour force and labour is allocated more efficiently, productive capacity increases, shifting LRAS from $LRAS_1$ to $LRAS_2$ in the right-hand diagram, so real GDP rises from Y_1 to Y_2 with a lower price level. Lower costs make UK firms more internationally competitive, and 97% of firms say flexibility is vital to competitiveness, so exports may rise and the current account improve. A flexible, low-regulation labour market also attracts foreign direct investment, which raises both AD in the short run and capacity in the long run. Flexibility can benefit workers too, for example parents and students who want to fit work around childcare or study.

However, there are strong arguments that these reforms have gone too far. Low unemployment hides underemployment: Figure 1 shows the underemployment rate in 2017 to 2018 (7.8%) is still above the 7.3% of 2007 to 2008, even though unemployment is much lower. Many people on zero-hours contracts work fewer hours than they want, so their incomes are low and insecure. Figure 2 shows real wages fell for most of 2009 to 2014, and Extract B states that it would take nearly 80 years for the average real wage to double. Low and insecure incomes reduce consumer confidence and consumption, the largest component of AD, so growth may be weaker than the employment figures suggest. Cutting benefits may also reduce the spending of low-income households, who have a high marginal propensity to consume.

Flexibility may also damage long-run productivity. Extract B argues that firms have little incentive to invest in the human capital of temporary workers, who may leave at any time, so workers do not develop new skills. It is easier for firms to hire cheap labour than to invest in capital, which may help explain the UK's weak productivity growth since 2008. Firms also face higher costs of recruitment and training when undervalued workers leave. If productivity stagnates, LRAS grows slowly, which limits the long-run benefits claimed in Extract C. In addition, unregulated markets increase inequality and in-work poverty, and lower pay reduces income tax revenue while raising spending on in-work benefits, worsening the government's budget position.

In evaluation, whether the reforms are beneficial depends partly on the time period. In the short run they have clearly delivered high employment and helped the UK avoid the very high unemployment of earlier recessions. In the long run, however, the benefits depend on productivity, and the evidence of falling real wages and high underemployment suggests that flexibility on its own has not raised productivity. The impact also depends on the starting point: removing restrictive practices from a heavily regulated market brings large gains, but the UK already has the least-regulated labour market in Europe, so further deregulation is likely to have diminishing returns and growing social costs. It also depends on which group is considered, since firms and those seeking flexible work gain, while low-skilled, insecure workers may lose out.

In conclusion, free market supply-side reforms have been beneficial to the UK in terms of employment and competitiveness, but the data on underemployment and real wages suggest the benefits have been unevenly shared and have not delivered strong productivity growth. The best approach is probably to keep a flexible labour market while combining it with interventionist supply-side policies, such as more investment in education and training and some extra protection for zero-hours workers, so that flexibility is matched by rising skills, productivity and real wages.

Question
number

0 5

$$\text{Imports} \div \text{exports} = \$539.5\text{bn} \div \$120.4\text{bn} = 4.4808$$

The US spent \$4.48 on imports from China for every \$1 received from exports to China in 2018.

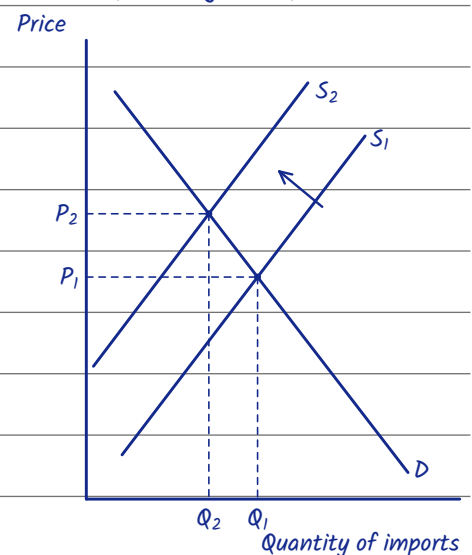
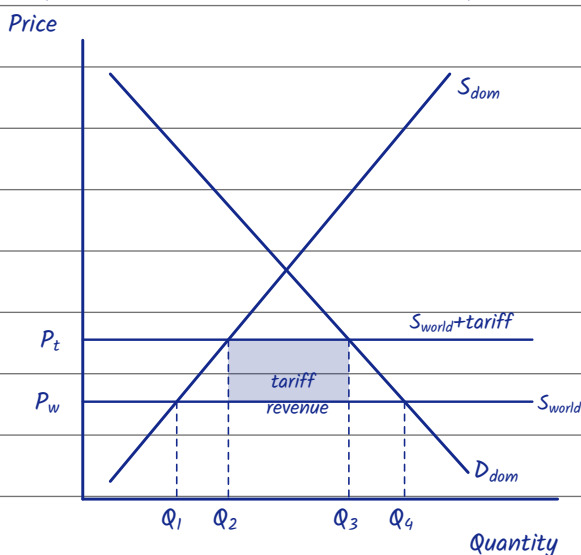
0 6

Protectionist policies are measures, such as tariffs and quotas, that restrict imports to protect domestic producers from foreign competition.

Figure 3 shows that US imports from China rose from \$440.4bn in 2013 to \$505.5bn in 2017, an increase of 14.8%, while US exports to China only rose from \$121.7bn to \$129.9bn, an increase of 6.7%. As a result the US trade deficit with China in goods widened from \$318.7bn in 2013 to \$375.6bn in 2017, apart from a small fall from \$367.3bn in 2015 to \$347.0bn in 2016. Figure 4 shows the deficit grew further in 2018 to \$419.2bn, since imports rose to \$539.5bn while exports fell to \$120.4bn. The ratio of imports to exports widened from about 3.62 : 1 in 2013 to 4.48 : 1 in 2018. A large and widening deficit means spending is leaking out of the US circular flow, which may threaten US jobs and output, so the US may have imposed tariffs to make Chinese goods more expensive, reduce imports and narrow the deficit.

0 7

A tariff is a tax on imported goods. By raising the price of imports it is a form of protectionism. The volume of imports is the physical quantity of goods imported, whereas the value of imports is the volume multiplied by the price.



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In the left-hand diagram, before the tariff the US can import as much as it wants at the world price P_w . Domestic producers supply Q_1 , domestic consumers demand Q_4 , and the gap Q_1 to Q_4 is imported. A tariff raises the price of imports to P_t . As the price rises, domestic producers expand output along their supply curve from Q_1 to Q_2 , because production is now more profitable for them. At the same time, consumers contract their demand from Q_4 to Q_3 , since the higher price reduces their real income and some switch away from the product. The volume of imports therefore falls from Q_1Q_4 to Q_2Q_3 , while the government gains tariff revenue shown by the shaded area.

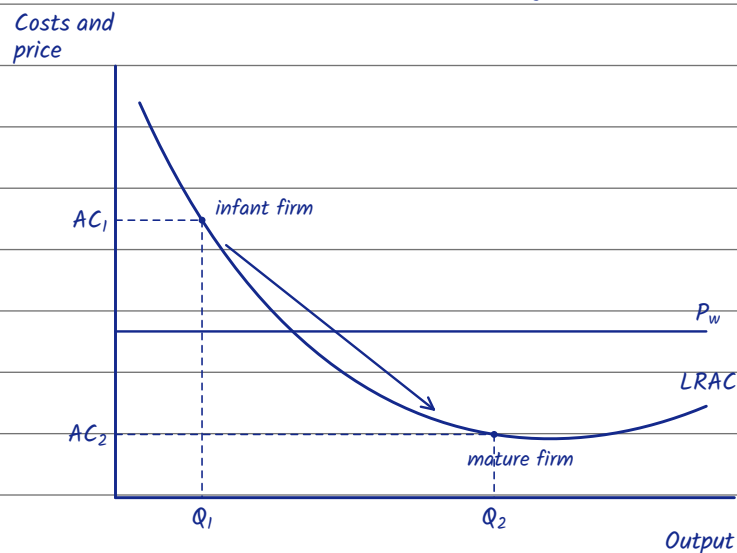
Alternatively, the tariff can be seen as an increase in the costs of foreign suppliers, shifting the supply of imports to the left from S_1 to S_2 in the right-hand diagram, so the price of imports rises from P_1 to P_2 and the quantity imported falls from Q_1 to Q_2 . US consumers switch from Chinese goods to domestic substitutes that are now relatively cheaper.

The size of the fall in import volumes depends on price elasticities. If demand for the imported good is price elastic, for example because there are close domestic substitutes, consumers switch strongly and imports fall a lot. If domestic supply is elastic, domestic producers can quickly increase output to replace imports.

However, if demand is price inelastic, such as for Chinese components with no US alternative, the volume of imports may fall only slightly, and the value of imports may even rise because the higher price outweighs the small fall in quantity. The effect also depends on the size of the tariff and whether Chinese exporters cut their prices to absorb it, or whether the yuan depreciates, which would offset the tariff. Overall, the US tariffs on \$200bn of Chinese goods are likely to reduce the volume of imports from China, but by an amount that depends on these elasticities.

Protectionism is the use of measures such as tariffs, quotas, subsidies to domestic producers and non-tariff barriers to restrict imports and shield domestic industries from foreign competition. Economic development is a broader concept than economic growth: it is an improvement in living standards and welfare, including higher real incomes, less poverty, better health and education and greater choice, often measured using the HDI.

The main argument for protectionism in developing economies is the infant industry argument. A new domestic industry in a country like Brazil starts small and has high average costs, so it cannot compete with established foreign firms that already benefit from economies of scale. As the diagram shows, an infant firm producing Q_1 has average costs AC_1 above the world price P_w , so without protection it would be crushed by foreign competition, as Extract F says. A tariff raises the price of imports and allows the firm to grow to Q_2 , where it benefits from technical and purchasing economies of scale and learning by doing, so average cost falls to AC_2 , below the world price. At that point protection can be removed and the industry can compete globally. Extract F notes that Brazilian industries from textiles to computers were able to grow behind tariff barriers.



Protectionism can also help development by diversifying the economy away from reliance on a few primary commodities, whose prices are volatile. Building a manufacturing base creates jobs with higher productivity and higher wages than subsistence agriculture, raising incomes and tax revenue that can fund health and education. Tariffs themselves raise government revenue, which is important where

income tax is hard to collect. Extract F explains that high tariffs motivated foreign firms such as Volkswagen, Ford, Fiat and Mercedes to set up factories in Brazil to avoid them, creating jobs, growth and improved living standards. This FDI also brings technology and skills, a positive externality for the wider economy. China too protected key industries while it industrialised, and its rapid growth lifted hundreds of millions of people out of poverty. Historically, as Extract F argues, countries such as the UK and US used protection during their own industrialisation, so free trade may be a way of keeping developing nations poor. However, protectionism has significant costs. Tariffs raise prices for consumers: in Brazil, an iPhone costs on average 50% more than in the US, and tariffs on imported trucks and buses more than double their price. This reduces real incomes and living standards, especially for the poor, and raises costs for firms that rely on imported capital goods and components, making them less competitive. Protection also removes the incentive to become efficient. Firms sheltered from competition may suffer from X-inefficiency and never grow up, so the infant industry remains dependent on protection. The ICC argues that because Brazil is such a closed economy it has very low productivity compared with more developed countries, and that it needs to be more integrated into global supply chains to become competitive. Protectionism also means a country does not gain from specialisation according to comparative advantage. Resources are diverted into industries where the country has a comparative disadvantage, so world output and consumption are lower than they could be under free trade. There is also the risk of retaliation. Extract E shows how US tariffs on \$200bn of Chinese goods led China to impose tariffs on \$60bn of US goods, and the IMF warned that this trade war would make the world poorer and lower global growth. A developing economy that relies on export markets, as China does, has a great deal to lose if its trading partners retaliate. Protectionism can also encourage rent-seeking and corruption as firms lobby for favours.

In evaluation, the effects depend on the type and duration of protection.

Temporary, targeted protection for genuine infant industries with real potential comparative advantage, with a clear timetable for removing it, is more likely to promote development than permanent across-the-board tariffs, which tend to create inefficient industries. It also depends on the stage of development: protection may help a low-income country start industrialising, but an emerging economy like China, now the world's largest exporter, benefits far more from open markets, and its success owed as much to export-led growth, FDI and investment in infrastructure and education as to protection. The size of the domestic market matters too, since a large country such as Brazil or China can achieve economies of scale at home, whereas a small developing economy cannot. Finally, WTO rules and the risk of retaliation now limit what developing countries can do, unlike the developed countries in the past.

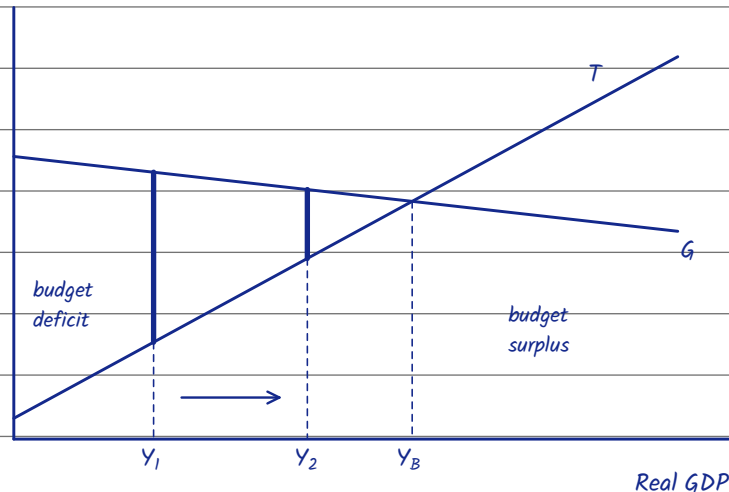
In conclusion, protectionism can play a limited role in achieving development, mainly through carefully designed and temporary infant industry protection and by attracting FDI, as Brazil's car industry shows. However, the evidence of high prices and low productivity in Brazil, and the damage from the US to China trade war, suggest that long-term protectionism is more likely to hold development back. Developing economies are better served by gradually opening up to trade while using supply-side policies, such as investment in education, infrastructure and institutions, to build the competitiveness needed to benefit from global markets.

The budget balance is the difference between government spending and tax revenue in a year. A budget deficit occurs when government spending (current spending, capital spending and transfer payments) is greater than tax revenue, so the government must borrow. A falling budget deficit means this gap is narrowing, either in absolute terms or, as in the UK where the deficit fell to 2.3% of GDP in 2017, as a percentage of GDP. The deficit can fall as a percentage of GDP even if it is unchanged in nominal terms, simply because nominal GDP is growing.

The deficit can be split into a cyclical deficit, which is caused by the economy being below its trend level of output, and a structural deficit, which remains even when the economy is at its trend level. Each can fall for different reasons.

The most important cause of a falling cyclical deficit is economic growth. As the diagram shows, as real GDP rises from Y_1 to Y_2 , tax revenue T rises because incomes, spending and profits increase, so income tax, VAT and corporation tax receipts rise. With a progressive income tax system, revenue rises more than proportionately, since more people move into higher tax bands (fiscal drag). At the same time government spending G falls automatically, because fewer people are unemployed and claiming benefits. These automatic stabilisers narrow the deficit shown by the vertical gap, and at Y_B the budget balances. The UK's recovery after the 2008 recession, with unemployment falling to around 4%, helped reduce the deficit in this way.

Government spending
and tax revenue



The structural deficit can fall because of discretionary fiscal policy. The government may choose austerity, cutting current spending on public services such as local government, welfare and defence, freezing public sector pay or cutting capital spending on infrastructure. The UK government cut spending significantly after 2010 and restricted increases in working-age benefits. Alternatively, it can raise taxes, for example the rise in VAT from 17.5% to 20% in 2011, increasing revenue directly. Raising indirect taxes is often easier because they are less visible to voters.

Interestingly, a cut in tax rates could also reduce the deficit. As the Laffer curve suggests, if tax rates are very high, cutting them may reduce tax avoidance and evasion and increase incentives to work and invest, so the tax base grows and revenue actually rises. Cutting corporation tax may also attract FDI, increasing employment and tax revenue.

Other causes include one-off receipts from privatisation or the sale of public assets, such as the sale of shares in Royal Mail and Lloyds Banking Group, which raise revenue in the year of sale. Lower interest rates reduce debt interest payments, a large part of government spending. Inflation can also reduce the deficit as a share of GDP, because it raises nominal tax revenue while some spending is fixed in cash terms. Finally, supply-side improvements that raise productivity raise trend growth, increasing future revenue and reducing the structural deficit. In practice, the UK's falling deficit was caused by a combination of economic recovery and deliberate austerity.

A budget deficit occurs when government spending exceeds tax revenue in a year.

The current account of the balance of payments records trade in goods and services, primary income (such as investment income) and secondary income (transfers); a deficit occurs when the value of these outflows exceeds inflows.

Macroeconomic performance is judged by how well the economy meets the government's objectives of sustainable economic growth, low and stable inflation, low unemployment and a satisfactory balance of payments. In 2017, the UK's budget deficit was 2.3% of GDP and its current account deficit was 3.3% of GDP.

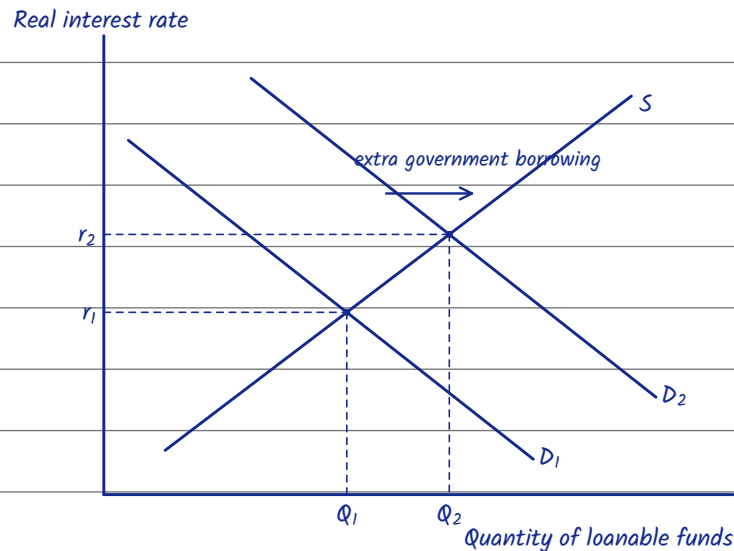
There are strong arguments that reducing the budget deficit is more important.

Each deficit adds to the national debt, and the UK's debt is now over 80% of GDP. The interest on this debt is an opportunity cost, since money spent on debt interest cannot be spent on health or education. If markets lose confidence that the government can repay, its credit rating may be downgraded, raising the interest rate on government bonds and making the deficit even harder to finance.

Future generations may then face higher taxes or spending cuts on merit and public goods, which would reduce long-run growth.

A large deficit can also cause crowding out. As the diagram shows, extra government borrowing increases the demand for loanable funds from D_1 to D_2 , raising the real interest rate from r_1 to r_2 . Higher interest rates discourage private investment, so the increase in government spending may displace private spending, and lower investment reduces the growth of productive capacity. If the economy is close to full capacity, a large deficit could also be inflationary.

Question
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On the other hand, a current account deficit can also damage macroeconomic performance. It may indicate a lack of competitiveness, caused by low productivity, high costs or poor non-price factors such as quality, so the UK is losing markets to foreign firms. This reduces $(X - M)$, a component of AD, lowering growth and causing job losses, especially structural unemployment in manufacturing regions. A deficit must be financed by a surplus on the financial account, either through FDI or by borrowing and selling assets to foreigners, which increases international indebtedness and means future investment income flows abroad, worsening the primary income balance. If foreigners lose confidence, there may be capital flight and a sharp depreciation of the pound, which would raise import prices and cause cost-push inflation. A persistent deficit can therefore indicate structural weaknesses in the economy.

However, there are reasons to think neither deficit is necessarily a problem. Both deficits can be beneficial in the short run. A budget deficit during a recession supports AD, employment and growth, while a current account deficit means UK consumers enjoy more goods and services than the country produces, raising living standards. Whether reducing the budget deficit is important depends on whether it is cyclical or structural. A cyclical deficit will disappear as the economy grows, so cutting spending in a downturn could reduce AD, increase unemployment and, through the multiplier, reduce tax revenue, making the deficit worse. With interest rates at historically low levels, the cost of servicing UK debt has been low, so the urgency is less. Similarly, the significance of the current account deficit

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depends on how it is financed. If it is financed by long-term FDI, such as investment by car manufacturers in the UK, it brings jobs, technology and tax revenue, which is far less risky than short-term borrowing. The UK's surplus on trade in services, especially financial services, also partly offsets its trade in goods deficit.

The two objectives are also linked. Reducing the budget deficit through austerity reduces AD and the demand for imports, which tends to reduce the current account deficit too. However, if deficit reduction reduces spending on education, training and infrastructure, it may harm productivity and competitiveness, worsening the current account in the long run. Supply-side policies that raise productivity would help both, since they increase growth and tax revenue while making exports more competitive.

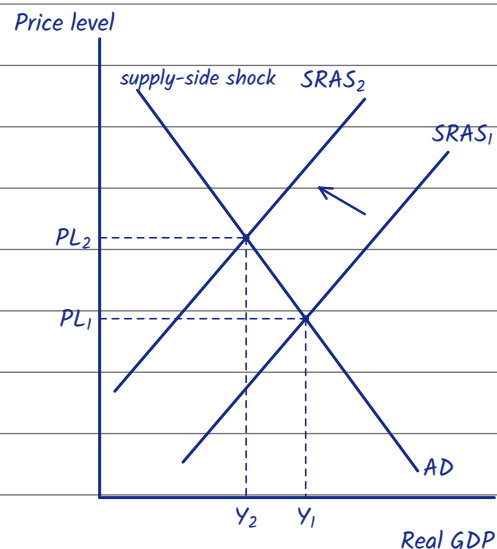
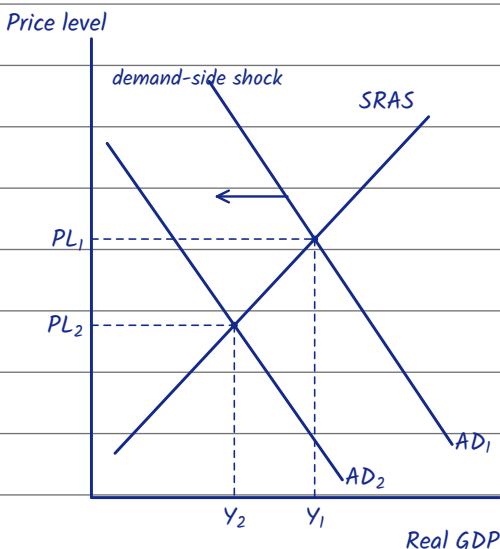
In conclusion, I agree only to a limited extent that reducing the budget deficit is more important. In 2017 the budget deficit had already fallen to 2.3% of GDP, its lowest level since 2001, and low interest rates make it affordable, whereas the current account deficit of 3.3% of GDP has been persistent and reflects the UK's weak productivity and reliance on foreign capital inflows, which could reverse suddenly, for example after Brexit. Therefore, at that time, reducing the current account deficit through supply-side improvements to competitiveness was arguably more important to the UK's long-run macroeconomic performance, although the government still needs a credible plan to keep the national debt sustainable.

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Unemployment occurs when people of working age are willing and able to work but cannot find a job. In the UK it is measured by the Labour Force Survey using the ILO definition: people without a job who have actively looked for work in the past four weeks and are able to start within two weeks. An economic shock is an unexpected, often external, event that suddenly changes aggregate demand (a demand-side shock) or aggregate supply (a supply-side shock).

Labour is a derived demand: firms demand workers because of the demand for the goods and services they produce. An unfavourable demand-side shock reduces one or more of the components of $AD = C + I + G + (X - M)$. As the left-hand diagram shows, AD shifts left from AD_1 to AD_2 , so real GDP falls from Y_1 to Y_2 . With lower sales, firms need fewer workers, so they cut hours and make workers redundant. This is cyclical or demand-deficient unemployment, and the negative multiplier effect means falling incomes reduce consumption further, causing additional job losses.



Examples of demand-side shocks include an unexpected rise in interest rates, which raises the cost of borrowing and the reward for saving, reducing consumption of durables and business investment. A recession in a major trading partner, such as the eurozone, reduces demand for UK exports, so export industries cut jobs. A financial crisis, such as in 2008, where banks suddenly cut lending, reduces the money supply and credit available for consumption and investment; UK unemployment rose to over 8% after 2008. A collapse in consumer and business confidence, for example from uncertainty over Brexit, can also reduce

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spending. Because wages are sticky downwards, the labour market does not clear quickly, so unemployment can persist.

A supply-side shock affects the costs of production or productive capacity. An unfavourable supply-side shock, such as a sudden rise in the price of oil, raises firms' costs, so SRAS shifts left from $SRAS_1$ to $SRAS_2$, as shown in the right-hand diagram. Real GDP falls from Y_1 to Y_2 while the price level rises from PL_1 to PL_2 , causing stagflation. With lower output, firms need fewer workers, so unemployment rises. Higher costs also squeeze profits, so some firms cut jobs to reduce costs, or close. Rising prices reduce real incomes, which may also reduce consumption.

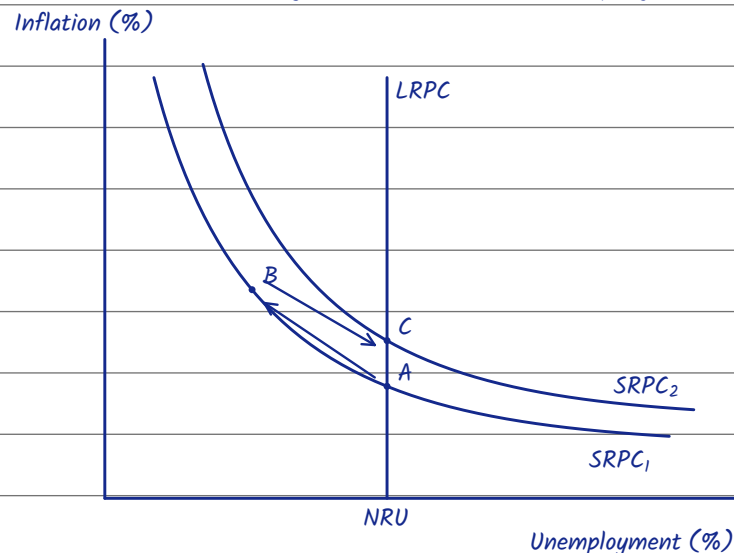
Some supply-side shocks cause structural unemployment, where there is a mismatch between the skills and location of workers and the jobs available. The sudden introduction of new technology, such as automation and artificial intelligence, may lead firms to replace labour-intensive production with capital-intensive methods, leaving workers with obsolete skills. A country opening up to trade, or the rise of low-cost producers such as China, can lead to cheap imports and deindustrialisation, so workers in manufacturing lose their jobs and lack the skills for the growing service sector, while labour is occupationally and geographically immobile.

Other supply-side shocks change incentives in the labour market. An unexpected rise in unemployment benefits, or in income tax rates, reduces the gap between income in and out of work, so the incentive to search for and quickly accept a new job falls and voluntary and frictional unemployment rise. A sudden increase in trade union power, or a large rise in the National Minimum Wage, could push wages above the market-clearing level, so the supply of labour exceeds demand, causing real-wage unemployment.

Overall, demand-side shocks mainly cause cyclical unemployment which falls when AD recovers, while supply-side shocks can cause both a fall in output and longer-lasting structural unemployment, which is harder to reduce.

The main macroeconomic objectives of the UK government are sustainable economic growth, low and stable inflation (the CPI target of 2%), low unemployment and a satisfactory position on the current account of the balance of payments. Policies such as fiscal policy, monetary policy and supply-side policies are used to achieve them. A conflict, or trade-off, occurs when a policy that helps achieve one objective makes another harder to achieve. In 2018 the UK appeared to achieve most objectives together, with growth of 1.4%, unemployment of around 4.1%, inflation of 2.5% and a falling current account deficit.

In the short run, conflicts are common when policies act on aggregate demand. Expansionary fiscal or monetary policy increases AD, raising real GDP and reducing unemployment. However, as the economy approaches full capacity, the SRAS curve becomes steeper, so increases in AD mainly cause demand-pull inflation. This is shown by the short-run Phillips curve: in the diagram, a fall in unemployment from A to B is accompanied by higher inflation. Conversely, contractionary monetary policy, such as a rise in Bank Rate to reduce inflation, reduces consumption and investment, so growth slows and unemployment rises.



There is also a conflict between growth and the current account. As incomes rise, households spend more on imports, since the UK has a high marginal propensity to import, so the current account deficit tends to widen when the economy grows strongly. Rising inflation also makes UK exports less price competitive. Policies to reduce the current account deficit, such as deflationary fiscal policy, would reduce imports but also reduce growth and increase unemployment, while protectionist

policies risk retaliation, which would reduce exports and raise unemployment. Fast growth may also conflict with secondary objectives such as protecting the environment or reducing inequality, and strong growth may lead to unsustainable rises in asset prices.

However, there are reasons to believe the objectives can be achieved together. The long-run Phillips curve is vertical at the natural rate of unemployment (NRU). If workers come to expect higher inflation, the SRPC shifts up to $SRPC_2$, and unemployment returns to the NRU at C with higher inflation. This suggests there is no long-run trade-off: the government cannot permanently reduce unemployment by accepting higher inflation, so maintaining low inflation does not cost permanently higher unemployment. Indeed, low and stable inflation creates certainty that encourages investment, which supports long-run growth.

Most importantly, supply-side policies, such as investment in education and training, infrastructure, and reforms to increase labour market flexibility, shift LRAS to the right. This allows the economy to achieve higher growth and lower unemployment while also reducing inflationary pressure, since productive capacity grows alongside AD. Higher productivity also lowers unit costs, making exports more competitive and improving the current account. So, in the long run, supply-side growth allows all objectives to be achieved without conflict. Similarly, a positive supply-side shock, such as lower world commodity prices or cheap imports from China due to globalisation, allowed the UK to enjoy the 'NICE' decade (non-inflationary consistently expansionary) from the mid-1990s to 2007, with steady growth, falling unemployment and low inflation.

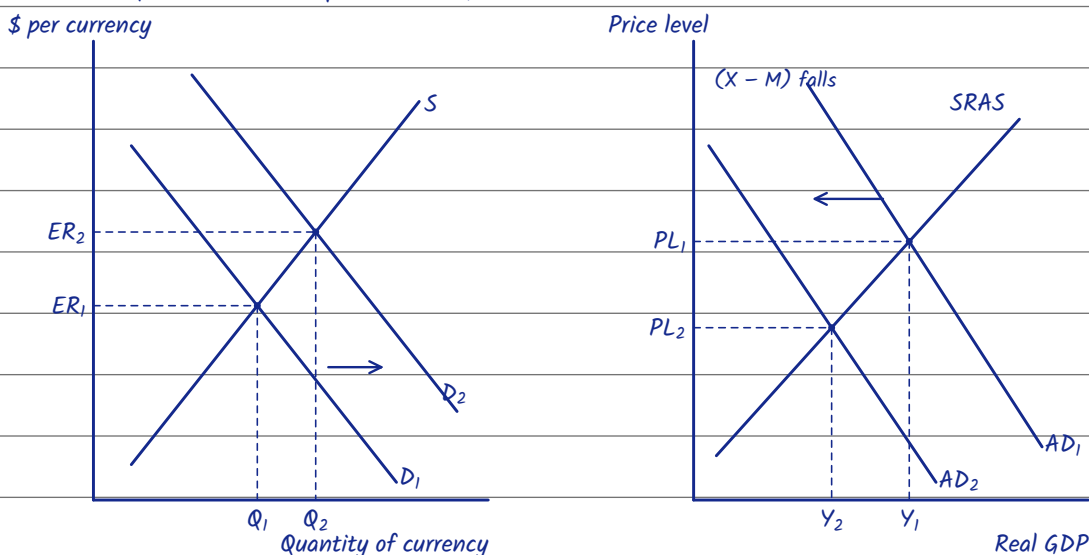
Nevertheless, there are limits. Supply-side policies take a long time to have an effect and can be expensive, which may conflict with reducing the budget deficit. Some reforms, such as cutting benefits, may increase inequality. External shocks are largely outside the government's control: a rise in oil prices causes cost-push inflation and higher unemployment together, forcing the Bank of England to choose between them. Even during the NICE decade, the current account deficit widened and household debt rose, which contributed to the 2008 financial crisis. Whether objectives conflict also depends on the state of the economy: when there

is a large negative output gap, as in 2009, expansionary policy can raise growth and reduce unemployment with little inflation, whereas close to full capacity, as in 2018 with unemployment at 4.1%, conflicts become much more likely.

In conclusion, in the short run the UK's objectives are likely to conflict, especially when policies rely on managing AD and the economy is close to full capacity. However, the long run picture is more positive: if the government uses supply-side policies to raise productivity, and the Bank of England maintains credible low inflation, the objectives can largely be achieved together. The UK's mixed performance in 2018 suggests this is possible, but external shocks such as Brexit mean the government is likely to face some trade-offs at least some of the time.

An appreciation is a rise in the value of a currency against other currencies in a floating exchange rate system, so each unit of the currency buys more foreign currency. As the left-hand diagram shows, it can be caused by an increase in demand for the currency from D_1 to D_2 , raising the exchange rate from ER_1 to ER_2 . This may happen because of increased demand for the country's exports, inward investment such as FDI, higher interest rates attracting hot money, more tourism, or speculation that the currency will rise. Economic growth is the increase in real GDP over time; short-run growth is an increase in actual output, and long-run growth is an increase in productive capacity.

An appreciation makes exports more expensive in foreign currency terms. For example, after the euro appreciated by more than 15% against the pound, a Lithuanian good priced at €100 costs UK buyers more in pounds. At the same time imports become cheaper in domestic currency. If demand for exports and imports is price elastic, the volume of exports falls and the volume of imports rises, so net exports ($X - M$), a component of AD, fall. AD shifts left from AD_1 to AD_2 in the right-hand diagram, so real GDP falls from Y_1 to Y_2 , or grows more slowly than it otherwise would. This is the SPICED effect: a strong currency means imports are cheaper and exports dearer.



The fall in AD is magnified by the multiplier. Export industries lose sales and cut output and jobs, so incomes fall and consumption falls, causing further rounds of falling spending. Domestic firms competing with imports also lose sales to cheaper foreign goods. With lower sales and profits, and less confidence about the future,

firms may also reduce investment, further reducing AD. The size of the effect depends on the size of the multiplier and on how open the economy is: Lithuania is a small open economy where exports are a large share of GDP, so it is likely to be strongly affected.

However, an appreciation can also have positive effects on growth. Imported raw materials, components and energy become cheaper, reducing firms' costs of production. This shifts SRAS to the right, increasing output and reducing the price level. Cheaper imported capital goods also make it less costly for firms to invest in new technology, which can increase productivity and long-run growth by shifting LRAS to the right. Lower inflation increases real incomes, which may boost consumption.

The effect also depends on elasticities. According to the Marshall-Lerner condition, net exports only fall if the sum of the price elasticities of demand for exports and imports is greater than one. If demand is price inelastic, for example for specialised exports with few substitutes, the volume of exports falls only slightly and the value of exports in domestic currency may not fall much, so the effect on growth is small. Firms may also absorb the appreciation by cutting profit margins rather than raising foreign prices, and non-price factors such as quality and brand may matter more than price.

An appreciation may affect long-run growth through investment decisions. A persistently strong currency makes it less attractive for foreign multinationals to locate production in the country to export from, so FDI may fall, and domestic firms may decide to relocate production abroad where costs are lower. Both reduce capital investment and long-run growth. Exchange rate uncertainty also discourages investment. On the other hand, a currency that is appreciating because of strong economic fundamentals may attract investment.

Overall, an appreciation is likely to reduce a country's short-run growth through lower net exports and a negative multiplier effect, but the size of the effect depends on elasticities, the openness of the economy, the cause of the appreciation and whether lower import costs boost supply.

A currency union is a group of countries that share a single currency and a single monetary policy set by a common central bank. The eurozone has 19 members using the euro, with interest rates set by the European Central Bank (ECB).

Joining means a country gives up its own currency and its own exchange rate, and so cannot devalue against other members.

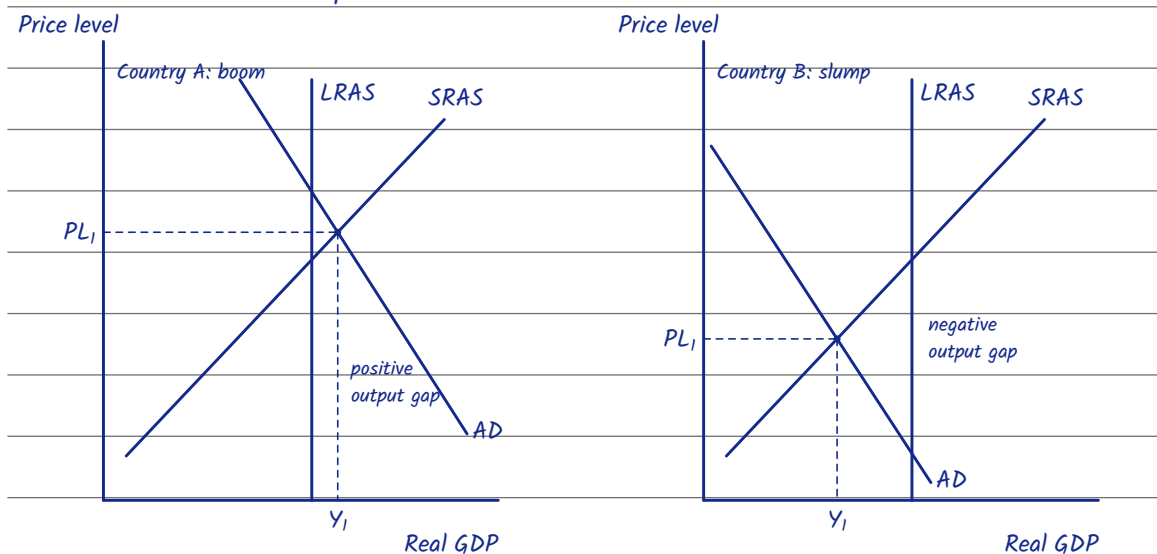
The main benefit is the elimination of exchange rate uncertainty within the union. Firms trading with other members know exactly what they will receive, which makes business planning easier and encourages trade and investment.

Transaction costs are removed, since firms and tourists no longer need to change currencies and pay commission. Lower costs make trade cheaper, leading to trade creation and greater specialisation according to comparative advantage, which increases efficiency and output. Price transparency also increases, as consumers can easily compare prices across countries, increasing competition, which drives down prices and drives up efficiency.

Membership may also attract inward investment. Multinational firms may locate in a eurozone country such as Lithuania to gain access to the large single currency market without exchange rate risk, which brings jobs, technology and long-run growth. For small economies, the currency union offers protection from speculative attacks on their currency and the credibility of the ECB's inflation target, which can reduce inflation and interest rates. Lower borrowing costs and greater stability can increase investment, while lower import costs from the strong euro can reduce inflation. There may also be political benefits from closer integration with other European countries.

However, there are significant costs. In the short run there are changeover costs, as firms must change price lists, tills, vending machines and accounting systems (menu costs), and some firms may round prices up. The biggest cost is the loss of an independent monetary policy. The ECB sets one interest rate for the whole eurozone, which is a 'one size fits all' policy. As the diagram shows, if Country A is booming with a positive output gap while Country B is in a slump with a negative output gap, a single interest rate will be too low for A, causing inflation and asset bubbles, and too high for B, deepening its recession and raising

unemployment. This happened in the 2000s when low ECB rates fuelled housing booms in Ireland and Spain.



A member also loses the exchange rate as a way of adjusting to shocks. If its economy becomes uncompetitive, it cannot devalue to make exports cheaper and restore growth. Instead it must reduce costs through internal devaluation, cutting wages and prices, which is slow and painful and causes high unemployment. Greece is the clearest example: after the 2008 crisis it could not devalue or cut interest rates, unemployment rose above 25% and real GDP fell by around a quarter. In addition, the Stability and Growth Pact limits budget deficits to 3% of GDP and debt to 60% of GDP, which restricts the use of fiscal policy to offset a recession. An appreciation of the euro, such as the 15% rise against sterling mentioned, will also reduce the competitiveness of all members' exports to non-members.

The balance of costs and benefits depends on whether the countries form an optimal currency area. If members' economic cycles are synchronised, labour is mobile between them, wages and prices are flexible, and there are fiscal transfers from booming to depressed regions, as within the US, then a single interest rate causes few problems. The eurozone lacks many of these features, as language and cultural barriers limit labour mobility and there is only a small central EU budget. The impact also depends on the country: for a small open economy like Lithuania, which trades heavily with other eurozone members, the gains from lower transaction costs and stability are large and its economy had already been pegged

to the euro, so the loss of monetary independence costs little. For a large economy like the UK, with a different economic cycle and a large trade outside the eurozone, the costs are greater.

The time period also matters. Changeover costs are a short-run cost, while the benefits from trade and investment build up over the long run. However, the costs of asymmetric shocks may only become clear during a crisis, and once a country has joined, leaving is extremely difficult and costly, so the decision is effectively permanent.

In conclusion, joining a currency union brings clear benefits from lower transaction costs, certainty and increased trade, but at the cost of losing control over interest rates and the exchange rate. For small, open economies whose cycles are closely aligned with the union, as with Lithuania, the benefits are likely to outweigh the costs. For countries with different economic structures, inflexible labour markets or high government debt, the experience of Greece shows the costs can be severe. Therefore whether a country should join depends mainly on how close it is to an optimal currency area with the other members.