



Rewarding Learning
ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2018

Economics

Assessment Unit AS 2
assessing
Managing the National Economy

SEC21
SEC21

[SEC21]
THURSDAY 17 MAY, MORNING

TIME

1 hour 30 minutes.

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**.
You are permitted to use a calculator in this paper.

INFORMATION FOR CANDIDATES

The total mark for this paper is 80.

- Section A: 25 Marks
- Section B: 35 Marks
- Section C: 20 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 **3(b)**, **4**, **5 (b)**, **(c)** and **(d)**, **6** and **7**.

Quantitative skills will be assessed where appropriate.

Section A

Answer all questions (25 marks)

- 1** In 2014 the Gini coefficient for Northern Ireland was calculated to be 0.33, while the figure for the UK was 0.39.

Explain what this data tells us about the Northern Ireland economy compared to the UK economy.

[2]

- 2** The Economic and Social Research Institute calculated Gross Domestic Product (GDP) for the Republic of Ireland economy in 2016 to be €232bn while Gross National Product (GNP) was calculated to be significantly lower at €200bn.

(a) Explain the term GDP.

[3]

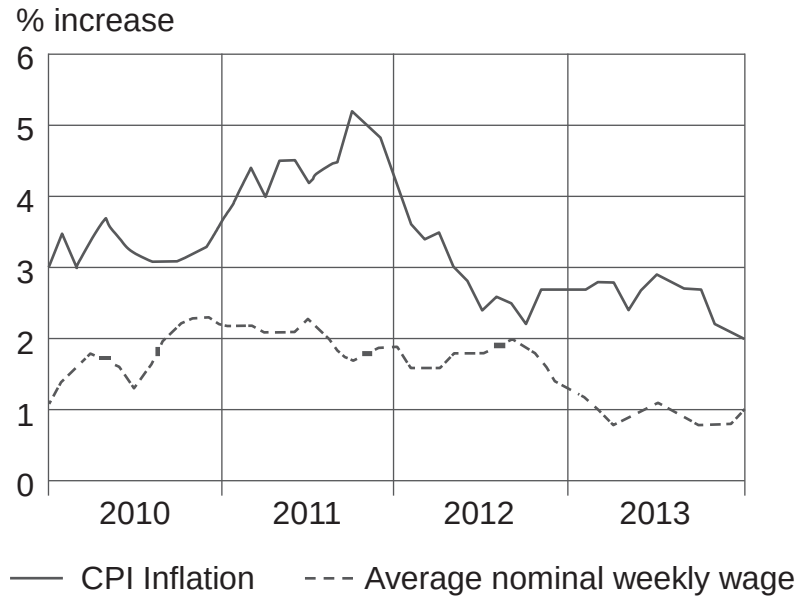
(b) Calculate how much smaller in percentage terms GNP is compared to GDP.

[2]

(c) Explain why GNP in the Republic of Ireland is so much lower than GDP.

[4]

- 3 The graph below charts the changes in the average nominal weekly wage and inflation in the UK between January 2010 and December 2013.



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- (a) Using the information in the chart, explain what has happened to real wages in the UK economy over the period shown. [2]
- (b) With the aid of an appropriate diagram, explain what classical economists believe would be the likely impact of this change in real wages on an economy with a significant negative output gap. [6]

- 4 Economists in the US claim that, as a result of deliberate government intervention in the foreign exchange markets, the Chinese yuan is approximately 40% undervalued against the US dollar.

Analyse the likely impact of this undervalued currency on the **Chinese** economy. [6]

Section B: Data Response

Answer all questions (35 marks)

Read the following passage carefully and answer the questions which follow.

5 UK economic growth slows

UK economic growth slowed significantly in the first quarter of 2016, official figures have revealed. UK GDP grew by just 0.4% between January and March 2016, down from 0.6% in the last quarter of 2015.

1

'The Purchasing Managers' Index® (PMI®), shown in **Fig. 1** below, is widely regarded as an excellent leading indicator for the state of the economy. Derived from surveys of private companies, it often gives earlier warnings about the state of the economy than other measures of economic performance. Worryingly for the government, the PMI fell in April 2016 to its lowest level since January 2013, which suggests that economic growth in the second quarter is unlikely to be much above 0.1%. Leading economic commentator Declan Brown stated that the decline in the PMI since 2014 has many economists and politicians worried that the current economic slowdown could become a full-blown recession.

2

UK PMI and GDP compared

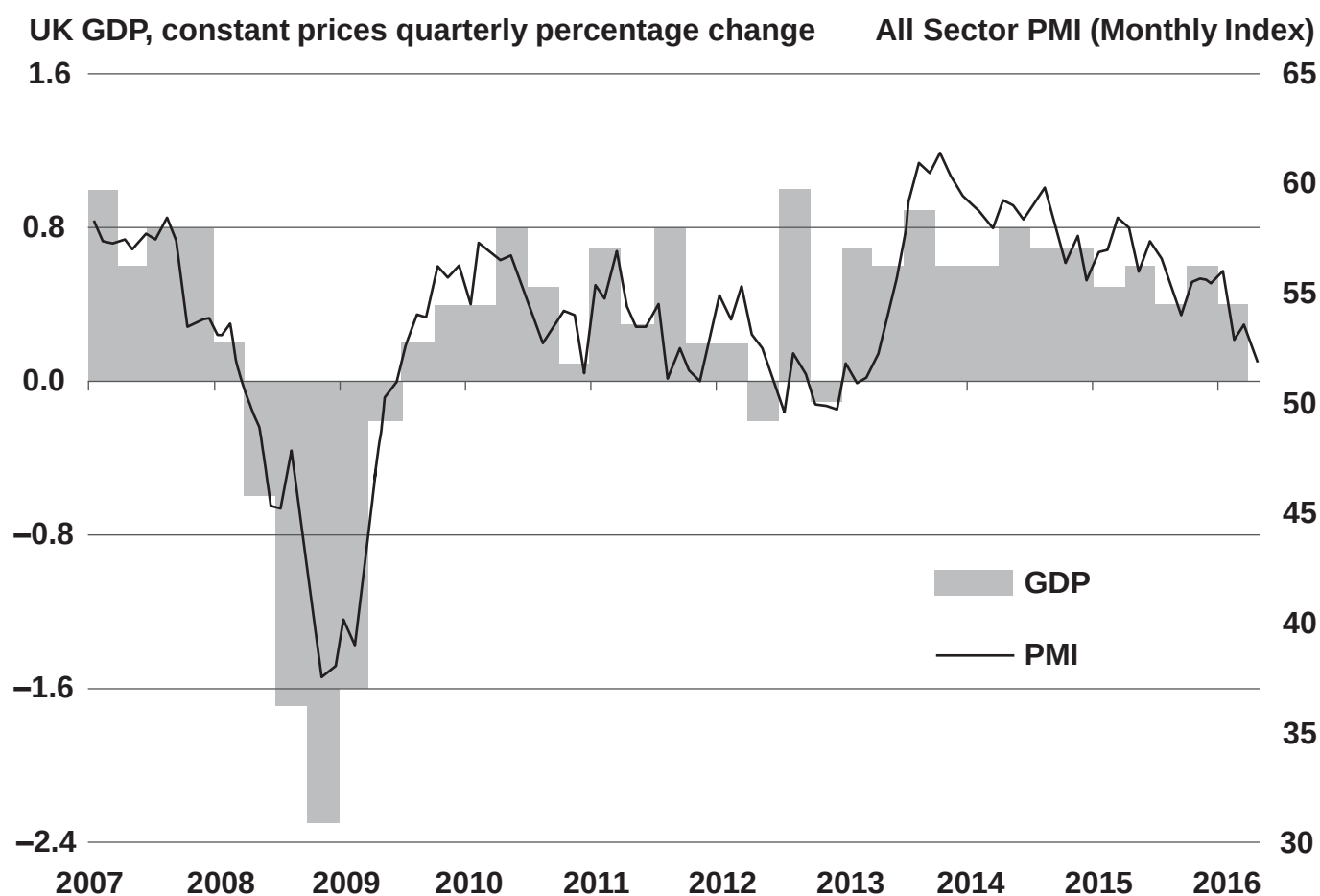


Fig.1 © IHS Markit, ONS, CIPS

Fig. 1: Monthly PMI and quarterly economic growth in the UK, January 2007 to April 2016

Chancellor George Osborne blamed the slowing growth on concerns over the UK's potential withdrawal from the EU, commonly referred to as "Brexit", stating, "the threat of Brexit means that investments and building are being delayed and this is weighing on our economy."

3

Samuel Tombs, chief economist with Pantheon Macroeconomics, is not convinced that fears over Brexit are the whole story. He stated, "concerns about Brexit likely played a role in the first quarter slowdown and they will probably take a greater toll on GDP growth in the second quarter. But the downward trend in GDP growth since 2014 suggests that the EU referendum cannot be blamed for all the economy's ills. Poor productivity, weak exports and falling industrial production and construction figures are more than a short-run reaction to a vote on the 23rd June."

4

Some economists have used the poor growth figures to call on the Monetary Policy Committee of the Bank of England to consider a further cut in interest rates to 0.25%. Economist Declan Brown stated, "with inflation close to zero, and little hope of fiscal stimulus from our hawkish Chancellor, the Monetary Policy Committee must step up and give the UK economy the boost it requires. Failure to do so would risk the UK economy falling into another damaging and long-lasting recession."

5

However, not everyone is convinced that lower interest rates are the answer, with one prominent economist stating, "cutting interest rates from their already historically low levels is unlikely to make any real difference to aggregate demand. If you wouldn't borrow money at 0.5% are you really going to borrow at 0.25%?"

6

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- (a) To what extent does the data in **Fig. 1** support the claim that the PMI is an excellent leading indicator for the state of the UK economy? [5]
- (b) With reference to **Fig. 1**, explain the difference between an economic slowdown and an economic recession. [6]
- (c) Analyse how concerns over Brexit might have led to slower growth in the UK. [9]
- (d) Critically examine the suggestion by Declan Brown, in paragraph 5, that cutting interest rates from 0.5% to 0.25% was the most appropriate policy to boost the UK economy in April 2016. [15]

Section C: Essays

Answer one question (20 marks)

- 6 In July 2016, the Office for National Statistics reported that there were 1.65 million unemployed people in the UK, while an additional 8.87 million were recorded as being economically inactive. This means that over 25% of the UK's potential labour force is not in any form of employment. Economists have called on the government to take direct action to increase the level of employment in the UK.

Critically examine the range of policies the UK government could use to reduce unemployment and economic inactivity.

[20]

- 7 In May 2016, French trade unionists and students staged a number of protests at the government's attempt to introduce supply side reforms. The reforms aim to support business by reducing environmental regulations, increasing the maximum working week from 35 hours and making it easier for firms to make workers redundant for economic reasons. Opponents of the reforms claim they are an attack on workers' rights and the environment.

Critically examine the view that supply side policies benefit large firms at the expense of workers and the environment.

[20]

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 *The Gini coefficient measures income inequality from 0 (perfect equality) to 1 (perfect inequality). Northern Ireland's lower figure (0.33 against 0.39 for the UK) tells us that income is more evenly distributed in NI than in the UK as a whole, so its Lorenz curve lies closer to the line of perfect equality.*

2(a) *GDP (Gross Domestic Product) is the total value of all goods and services produced within the domestic boundaries of a country in a given time period, usually a year. 'Domestic' means it includes everything produced inside the country, even output produced by foreign-owned firms, and 'gross' means no deduction has been made for capital consumption (depreciation). It can be measured by the output, income or expenditure methods.*

2(b) *$(232 - 200) \div 232 \times 100 = 32 \div 232 \times 100 = 13.8\%$
GNP is approximately 13.8% smaller than GDP (GNP is only 86.2% of GDP).*

2(c) *GNP (Gross National Product) is the total value of output produced by a country's factors of production, whether they are located at home or abroad, so $GNP = GDP + \text{net property income from abroad (NPIA)}$. In the Republic of Ireland NPIA is negative: $200 - 232 = -\text{€}32\text{bn}$. This is because the ROI contains a very large number of foreign-owned multinationals, such as Apple, Google and Pfizer, attracted by its low 12.5% corporation tax rate. Their output counts in ROI GDP, but the profits and dividends they send back to their foreign owners flow out of the country, so they are not part of ROI GNP, making GNP much lower.*

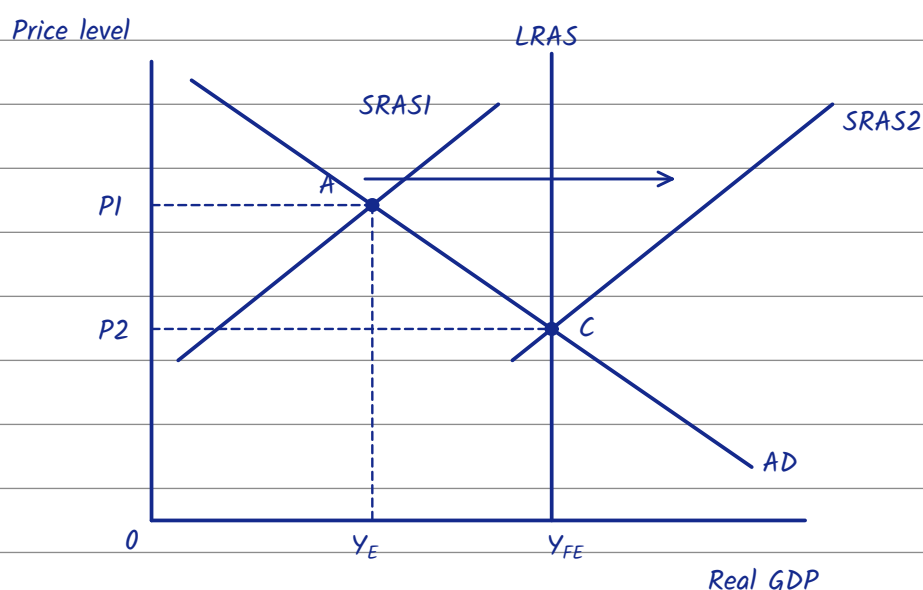
3(a)

Real wages are nominal wages adjusted for inflation. CPI inflation was above nominal wage growth throughout 2010 to 2013, so real wages fell over the whole period. For example, in January 2010 inflation was about 3.1% while wages grew by only about 1.3%, so real wages fell by about 1.8%; in late 2011 inflation peaked at 5.2% against wage growth of about 1.8%, a real fall of about 3.4%.

3(b)

A negative output gap exists when actual output is below the economy's potential (full employment) output, shown by point A in the diagram, where output Y_E is below Y_{FE} and there is spare capacity and unemployment.

Classical economists believe that markets, including the labour market, are flexible and self-correcting. The fall in real wages between 2010 and 2013 reduces the real cost of labour, which is the largest cost of production for most firms. Lower unit costs mean firms are willing to supply more output at every price level, so the SRAS curve shifts right from SRAS1 to SRAS2. As labour is cheaper, firms also hire more workers, so real-wage unemployment falls as the labour market moves back towards its market-clearing wage.



As the diagram shows, the economy moves from A to its long-run equilibrium at C, where SRAS2 and AD meet on the vertical LRAS. Real output rises from Y_E

to the full employment level Y_{FE} , unemployment falls and the average price level falls from P_1 to P_2 . The negative output gap is closed automatically, so classical economists argue there is no need for government intervention such as expansionary fiscal policy; in the long run the economy always returns to full employment.

4

An undervalued yuan means each yuan buys fewer dollars than its market value, so, *ceteris paribus*, Chinese goods are cheaper in dollar terms and foreign goods are dearer in yuan. Chinese exports become more price competitive, so the demand for exports rises, while Chinese consumers and firms switch from imports to domestic substitutes. Assuming demand for exports and imports is price elastic (Marshall-Lerner condition), net exports ($X - M$) rise, improving the current account of the balance of payments.

As $AD = C + I + G + (X - M)$, aggregate demand shifts right. Firms raise output, so real GDP and economic growth increase and the demand for labour rises, reducing unemployment, with further rises in income through the multiplier effect. A competitive currency also attracts foreign firms to locate in China to export from there, raising FDI.

However, if the Chinese economy is operating close to full capacity, the higher AD will cause demand-pull inflation. The weak yuan also makes imported raw materials, components and oil more expensive, raising firms' costs and causing cost-push inflation (SRAS shifts left). Chinese consumers lose purchasing power: imported goods and travel or shopping abroad cost more, so their living standards are lower than they could be. Keeping the yuan undervalued also requires the central bank to sell yuan and buy dollars, increasing the money supply, which adds to inflation, and it risks retaliation such as US tariffs on Chinese goods, which would reduce exports.

5(a)

A leading indicator is a measurable economic variable that changes before the economy as a whole starts to follow a particular trend, so it can be used to

predict changes in the economy.

Fig. 1 largely supports the claim. There is a strong positive correlation between the PMI and GDP growth, and the PMI tends to move first, with only a very short time lag. In late 2007 the PMI began to fall rapidly from about 57, and GDP growth fell soon afterwards from 0.8% in Q4 2007 to 0.2% in Q1 2008 and then became negative. The PMI hit its low of about 38 in late 2008, and its rapid rise in 2009, back above 50 by mid 2009, was mirrored by GDP growth turning positive in Q3 2009. Since its peak of about 61 in early 2014 the PMI has fallen to about 52 in April 2016, and GDP growth has also fallen to 0.4%.

However, it is an imperfect indicator, as the trends sometimes diverge. In late 2011 and early 2012 the PMI rose from about 50 to about 55, yet GDP growth fell to about 0.2% and then to -0.2% in Q2 2012, and in Q3 2012 GDP grew by 1.0% while the PMI was close to 50. So the PMI is a good, but not excellent, leading indicator.

5(b)

An economic slowdown occurs when the rate of economic growth falls but remains positive, so real GDP is still rising, only more slowly. For example, in Fig. 1 GDP growth fell from 0.8% in Q4 2007 to 0.2% in Q1 2008, and more recently from 0.6% in Q4 2015 to 0.4% in Q1 2016 (para 1): output was still growing.

A recession is defined as two consecutive quarters of negative economic growth, meaning real GDP actually falls for at least six months. Fig. 1 shows GDP fell in Q2 2008 (about -0.6%) and again in Q3 2008 (about -1.7%), so the UK officially entered recession in Q3 2008. GDP kept falling, by as much as about -2.3% in Q4 2008, and the recession only ended when growth became positive again (about 0.2%) in Q3 2009.

The difference matters: in a slowdown output and employment usually still rise slowly, but in a recession output falls, firms cut jobs and unemployment rises sharply. A single negative quarter, such as Q2 2012 (about -0.2%), is not a

recession because it was followed by positive growth.

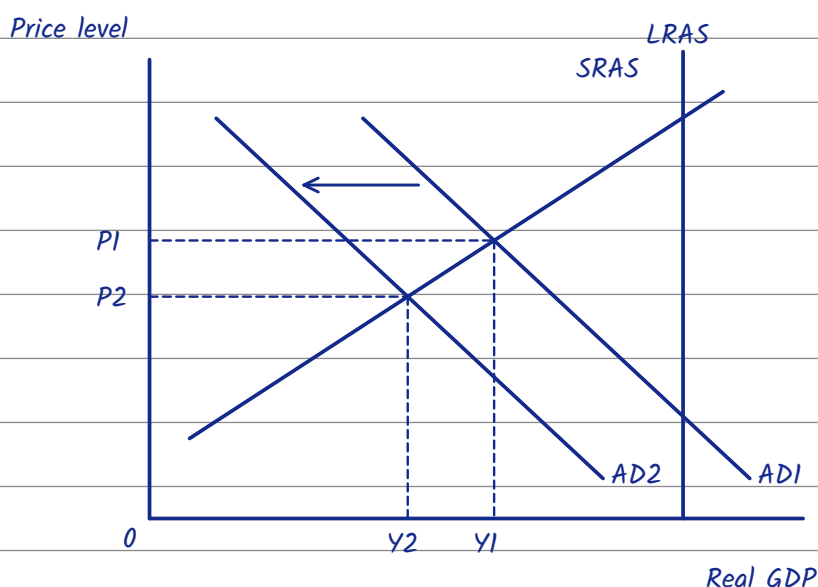
5(c)

Brexit refers to the UK's possible withdrawal from the EU, voted on in the referendum of 23 June 2016. Concerns over Brexit create uncertainty about future trade, regulations and the economy, which reduces business and consumer confidence ('animal spirits') and so slows growth through aggregate demand. Firstly, falling consumer confidence makes households postpone or cancel big-ticket purchases such as new cars, home extensions and luxury goods, and save more as a precaution. Consumption, the largest component of AD, falls, and if everyone saves more, total income and saving may fall (the paradox of thrift).

Secondly, falling business confidence makes firms delay or cancel investment because they cannot be sure of a satisfactory return, as Osborne said:

'investments and building are being delayed' (para 3). Firms may also postpone hiring or let temporary staff go, and worry about losing access to EU workers to fill skills gaps. Lower employment cuts incomes and spending further.

Thirdly, foreign firms may choose to invest in an EU country rather than the UK to keep access to the single market, and some already here may relocate, so foreign direct investment falls. Uncertainty may also cause the pound to depreciate, which raises import prices and squeezes real incomes.

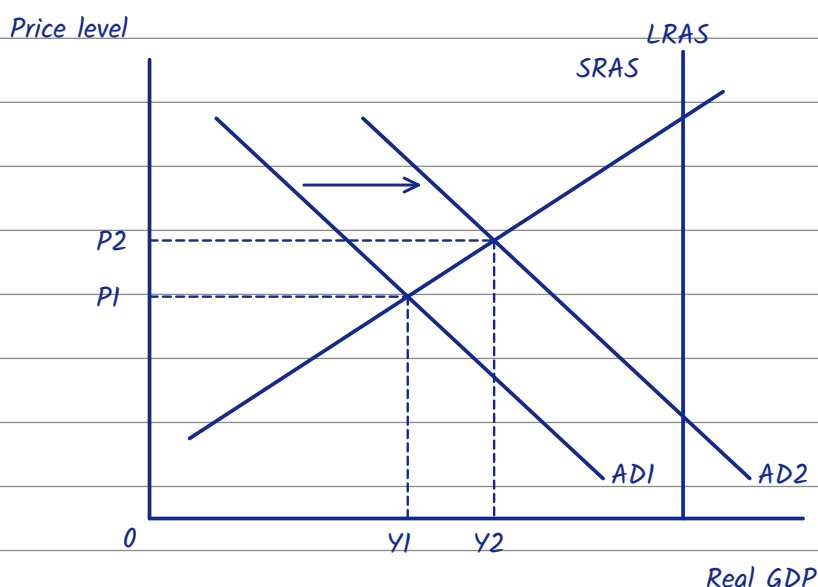


As the diagram shows, falls in C and I shift AD left from AD_1 to AD_2 , so real GDP falls from Y_1 to Y_2 , magnified by the negative multiplier effect as lower spending reduces other people's incomes. Growth slows and unemployment rises, which also reduces tax revenues. This is consistent with growth of only 0.4% in Q1 2016 and the PMI suggesting just 0.1% in Q2 (para 2), with Tombs expecting Brexit to 'take a greater toll' in the second quarter (para 4).

5(d)

The Bank Rate is the interest rate set by the Bank of England's Monetary Policy Committee (MPC), which influences all other interest rates. Cutting it from 0.5% to 0.25% would be expansionary monetary policy, aimed at boosting aggregate demand to prevent the slowdown becoming a recession.

There are strong arguments for the cut. A lower interest rate reduces the cost of borrowing and the reward for saving, so households borrow more and save less, and those on variable-rate mortgages have more disposable income, raising consumption. Firms find more investment projects profitable, so investment rises. Lower rates may also cause hot money outflows, depreciating the pound, making UK exports cheaper and imports dearer, so net exports rise. Rising asset and house prices create a positive wealth effect. AD shifts right from AD_1 to AD_2 , and through the multiplier real GDP rises from Y_1 to Y_2 , increasing growth and employment.



As the diagram shows, because the economy has spare capacity the rise in AD mainly raises output, with only a small rise in the price level from P_1 to P_2 .

With inflation close to zero (para 5), well below the 2% target ($\pm 1\%$), the MPC has scope to cut, and a rise in inflation towards 2% would actually help it meet its target. With a 'hawkish Chancellor' unwilling to use fiscal stimulus (para 5), monetary policy may be the only option, and it can be implemented quickly. Failure to act risks a 'damaging and long-lasting recession' with rising unemployment and hysteresis.

However, there are strong arguments against. Firstly, the size of the cut is tiny: rates were already at a historic low of 0.5% since March 2009, so the economy may be in a liquidity trap where further cuts have little effect. As para 6 asks, 'if you wouldn't borrow money at 0.5% are you really going to borrow at 0.25%?' Banks may not pass the cut on to borrowers, and when confidence is low because of Brexit, households and firms may not borrow whatever the rate. Secondly, monetary policy works with time lags of up to two years, so it may come too late. Thirdly, cutting now leaves the MPC with very little room to respond to a future shock, such as a vote to leave the EU. Fourthly, savers, often pensioners, lose income and may cut spending, and low rates fuel house price bubbles and household debt, worsening wealth inequality. Finally, a lower interest rate does not tackle the supply-side causes of slow growth identified by Tombs, such as poor productivity and weak exports (para 4).

There are alternatives. Quantitative easing, where the Bank buys bonds to inject money and lower long-term interest rates, could be extended beyond the £375bn already used. Expansionary fiscal policy, such as infrastructure spending, may have a larger multiplier when rates are near zero, although it would increase the budget deficit and national debt. Supply-side policies such as training and investment allowances would raise productivity, but take years to work.

Overall, whether the cut was the most appropriate policy depends on how much confidence is affected, how far banks pass it on and the time scale. A cut

alone is unlikely to make a large difference, but it is cheap, quick and signals that the MPC will support the economy, which may itself restore confidence.

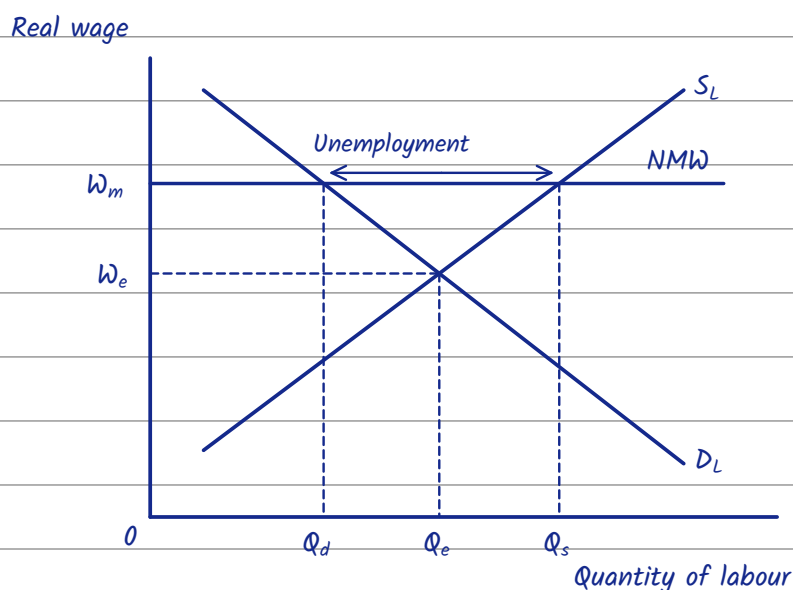
The most appropriate response would be the cut combined with more QE and, ideally, targeted fiscal and supply-side measures. Indeed, in August 2016 the MPC cut rates to 0.25% together with an extra £60bn of QE, which suggests a package was more appropriate than the cut alone.

6

Unemployment refers to people of working age who are without work, available to start work and actively seeking work (ILO definition), such as the 1.65 million unemployed in July 2016. The economically inactive are of working age but neither in work nor looking for work, such as students, carers, the long-term sick and early retirees, here 8.87 million. Together they mean over 25% of the potential labour force is not employed, so scarce resources are wasted and the economy produces inside its PPF. The best policy depends on the cause of the problem.

Firstly, if unemployment is demand-deficient (cyclical), the government could increase aggregate demand through expansionary fiscal policy, such as higher spending on infrastructure or lower income tax, or through monetary policy, such as lower interest rates or quantitative easing, or a lower exchange rate. As AD rises, firms need more workers because labour is a derived demand, and the multiplier boosts this further. It could also employ more people directly in the public sector. However, these policies have opportunity costs and would increase the budget deficit and national debt; with interest rates already at a historic low of 0.5% there may be a liquidity trap; and if the economy is near full capacity they cause demand-pull inflation, a conflict of objectives. They also do nothing for structural unemployment.

Secondly, the government could reduce real-wage unemployment by reducing the National Minimum Wage (NMW) or National Living Wage, or by giving firms a wage subsidy for hiring the long-term unemployed or young people.



As the diagram shows, an NMW set at w_m , above the equilibrium wage w_e , means the supply of labour (Q_s) exceeds the demand (Q_d), causing unemployment of $Q_s - Q_d$. Cutting the NMW towards w_e would increase the quantity of labour demanded. However, it would increase relative poverty and lower living standards for the low paid, reduce work incentives, and may cut consumption and AD. The impact depends on the elasticity of demand for labour, and evidence suggests the NMW has caused little unemployment in the UK. Wage subsidies avoid this but have a large opportunity cost and firms may simply replace existing workers with subsidised ones.

Thirdly, supply-side policies can reduce structural and frictional unemployment. Education and training reforms, such as apprenticeships, give workers the skills firms need, reducing occupational immobility. Welfare-to-work programmes such as 'Steps to Work' combine job search support with training, and reducing or tightening benefits, for example through Universal Credit, makes work pay and reduces the unemployment trap. Lower corporation tax can attract FDI and create jobs. These raise LRAS without causing inflation, but they are slow to work, expensive to administer and benefit cuts may cause hardship for those who genuinely cannot find work.

Economic inactivity needs different policies. Family-friendly policies, such as 30

hours of free childcare, flexible working and better parental leave, encourage parents, especially mothers, back into the workforce. Changing entitlement to income support for parents of school-age children and tightening sickness and incapacity benefit assessments increase the incentive to work. Programmes such as Pathways to Work help the long-term sick and disabled return to work, raising the state pension age and reviewing pension rules keeps older workers in the labour force, and stronger age discrimination laws protect them. However, family-friendly and age discrimination laws impose compliance costs on businesses, which may reduce hiring, and tighter benefit tests risk hardship for people with genuine illnesses. Much inactivity is also voluntary or beneficial: full-time students are building human capital and carers provide valuable unpaid work, so the 8.87 million figure overstates the problem.

In conclusion, no single policy can reduce both unemployment and inactivity. The most effective approach depends on the cause: in 2016, with unemployment fairly low at about 5%, the main problems were structural and inactivity, so targeted supply-side policies, such as training, childcare and welfare-to-work schemes, are most appropriate, even though they take time and cost money. Demand-side policy is only justified if a recession, for example after Brexit, raises cyclical unemployment, and cutting the NMW is the least desirable option because of its effect on poverty. A combination of policies, regularly evaluated, is therefore best.