



Rewarding Learning
ADVANCED SUBSIDIARY (AS)
General Certificate of Education
2022

Economics

Assessment Unit AS 2
assessing
Managing the National Economy



SEC21

[SEC21]
THURSDAY 26 MAY, AFTERNOON

TIME

1 hour 30 minutes.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number on the Answer Booklet provided.
Answer **all** questions in Sections **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 **5(b)**, **6(b)**, **(c)** and **(d)**, **7** and **8**. Quantitative skills will be assessed where appropriate.

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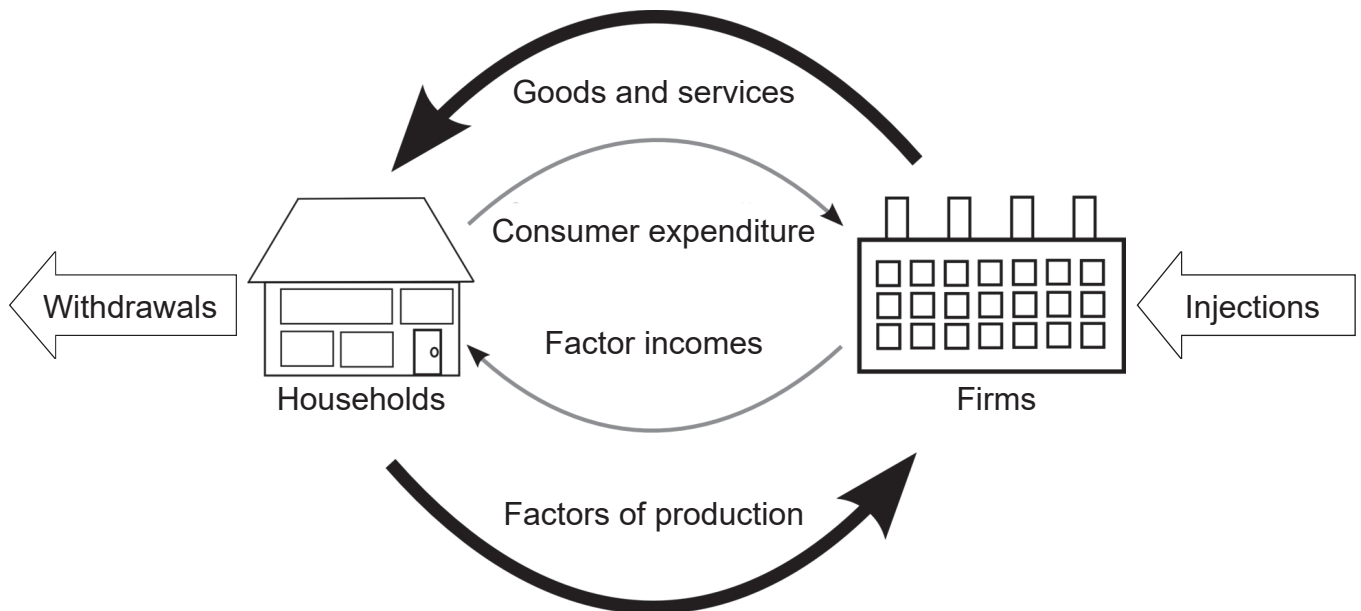
Section A (25 marks)

Answer all questions

- 1 The diagram below represents a simple circular flow of income model for an economy.

With the aid of appropriate examples, explain the difference between withdrawals and injections.

[4]



- 2 A recent report on income inequality in the UK showed the impact of taxes and benefits on income distribution. The table below shows the impact of direct and indirect taxes on income inequality in the UK as measured by the Gini coefficient.

Measure	Gross income	Disposable income	After-tax income
Description	personal income plus benefits	gross income after direct taxes	disposable income adjusted for indirect taxation
Gini coefficient	0.35	0.32	0.36

Using the information in the table above, explain the impact of indirect taxation on the distribution of household income in the UK.

[4]

- 3 Figures published by the Central Statistical Office of the Republic of Ireland show that in 2018 GDP at market prices was €324,038 bn, and GNP at market prices was €253,050 bn.

When converted into index number form, GDP at market prices in 2018 was 108.2 with 2017 being the base year.

Using this information, calculate:

- (a) Net factor income from abroad (Primary Income) for the Republic of Ireland economy in 2018. [2]

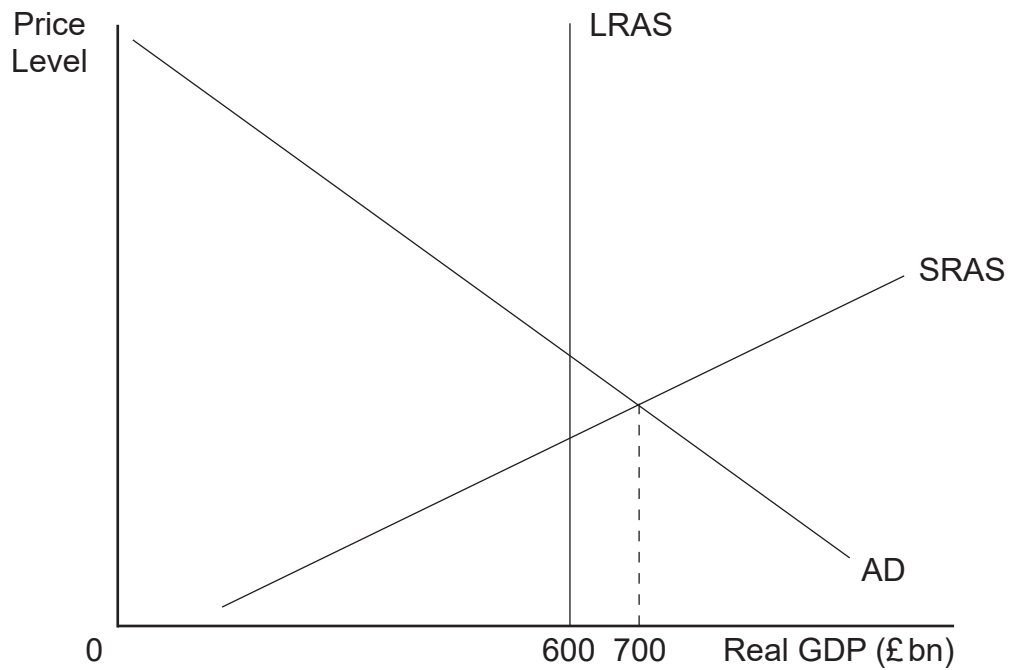
- (b) GDP at market prices for the Republic of Ireland economy in 2017. [2]

- 4 The table below shows estimates of quarterly economic growth rates for an unnamed economy during 2018 and 2019.

Date	% Change in real GDP
Q1 2018	0.7
Q2 2018	−0.2
Q3 2018	−0.4
Q4 2018	0.2
Q1 2019	0.5
Q2 2019	−0.6
Q3 2019	0.1
Q4 2019	0.2

With reference to the information in the table above, explain the term economic recession. [4]

- 5 The diagram below shows the short-run and long-run aggregate supply curves and the aggregate demand curve of an economy.



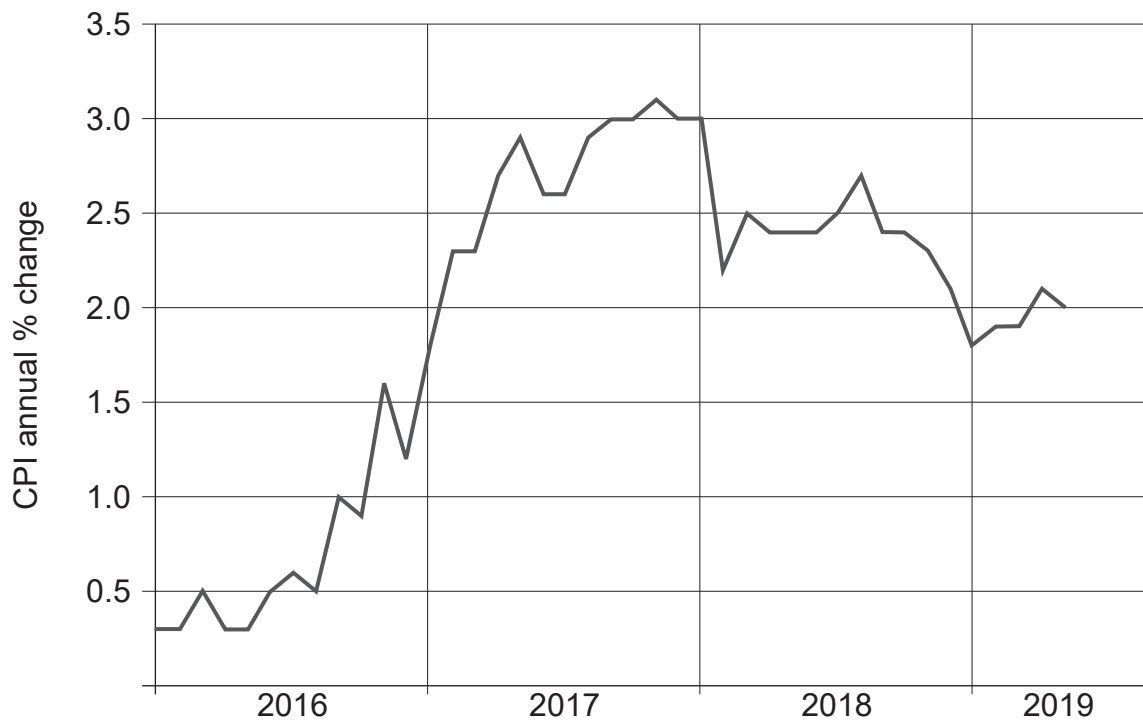
- (a) With reference to the diagram above, explain what is meant by a positive output gap. [3]
- (b) With the aid of an appropriate diagram, analyse how the government could use fiscal policy to deal with this positive output gap. [6]

Section B (35 marks)

Answer all questions

The following article was written in August 2019. Read it carefully and answer the questions which follow.

6 UK inflation rate slows



Source: ONS

Fig. 1: UK Consumer Price Index (CPI) inflation, January 2016 to May 2019

A fall in transport costs and cheaper clothing brought an end to the recent rise in the rate of inflation that had been threatening to force the Bank of England to increase interest rates. Falling energy costs and a price war in the car industry, following a slump in sales over the last year, also helped to bring down inflation from 2.4% in May 2018 to bang-on the inflation target of 2.0% in May 2019, as shown in **Fig. 1** above. This fall in the rate of inflation, while modest, is expected to be enough to persuade all nine members of the Monetary Policy Committee that there is very little price pressure building in the economy, and hence makes the prospect of a further increase in interest rates very unlikely.

1

While the fall in the official inflation rate is widely regarded to be a good thing for UK consumers, internet blogger Nigel Waltz claimed that the news was not as positive as most people believed. "UK consumers do not really understand what inflation is or how it is measured, and hence they associate falling inflation with falling prices, which is clearly not the case."

2

Many economists are now predicting that inflation will remain subdued or even fall further over the next nine to twelve months. Howard Caston, economic advisor to a number of investment funds, stated that “recent reductions in growth forecasts as a result of domestic political uncertainties and difficult global trading conditions are likely to reduce inflationary pressures from the demand side. At the same time, the recent falls in oil and energy prices are likely to reduce inflationary pressures from the supply side. Combined, these factors mean that we expect to see inflation remain flat for the next three to four quarters at the very least”.

3

With growth and inflation expectations so low, a number of economists are suggesting that the Bank of England will need to consider cutting interest rates in an attempt to provide a much needed stimulus to the UK economy. Howard Caston even went as far as calling on the Bank of England to “immediately implement an expansionary monetary policy in an attempt to save the UK economy from falling into a deep and prolonged period of low or even negative growth”.

4

- (a) Using the information in **Fig. 1**, describe the trend in the UK inflation rate between January 2016 and May 2019. [5]
- (b) Explain the difference between falling inflation and falling prices (paragraph 2). [6]
- (c) Analyse why many economists are predicting that inflation is likely to “remain flat for the next three to four quarters” (paragraph 3). [9]
- (d) Critically examine the proposal in paragraph 4 that the Bank of England should “immediately implement an expansionary monetary policy”. [15]

Source: Fig.1....© Office for National Statistics. Contains public sector information licensed under the Open Government Licence v3.0...

Section C (20 marks)

Answer one question

- 7 In recent years, a growing number of economists have been calling on national governments to adopt a policy of zero economic growth amid concerns that the relatively high rates of economic growth experienced in the last 50 years had done nothing but damage the environment and widen inequality.

Critically examine the view that the UK government should adopt a policy of targeting zero economic growth. [20]

- 8 A report published by the ONS has claimed that UK productivity, as measured by output per worker hour, is approximately 25% behind our main EU competitors such as France and Germany. This has led to calls for the UK government to implement strategies to improve the UK's productivity.

Critically examine the range of policies the UK government could implement in order to reduce the gap in productivity with our main competitors. [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

Withdrawals (leakages) are flows of income that leave the circular flow and are not passed on as spending on domestic goods and services, so they reduce the flow of income, e.g. savings (S), taxation (T) such as income tax and VAT, and spending on imports (M).

Injections are additions of spending to the circular flow that do not come from households' consumption of domestic output, so they increase the flow of income, e.g. investment by firms (I) in new machinery, government spending (G) on the NHS, and exports (X) sold abroad.

2

The Gini coefficient measures income inequality from 0 (perfect equality) to 1 (perfect inequality), so a higher Gini coefficient means income is less evenly distributed.

After direct taxes, the Gini coefficient for disposable income is 0.32, but once indirect taxes such as VAT and excise duties are taken into account it rises to 0.36 for after-tax income, higher even than for gross income (0.35). So indirect taxes increase income inequality: they are regressive, because poorer households spend a larger proportion of their income on taxed goods than richer households, so they pay a higher percentage of their income in indirect tax.

3(a)

Net factor income from abroad = GNP – GDP
= €253,050 bn – €324,038 bn = –€70,988 bn

3(b)

GDP 2017 = GDP 2018 ÷ index × 100 = €324,038 bn ÷ 108.2 × 100
= €299,480.59 bn

A recession is when an economy experiences two consecutive quarters of negative economic growth, i.e. real GDP falls for at least two quarters in a row. This economy was in recession in Q2 and Q3 2018, when real GDP fell by 0.2% and then by 0.4%. Real GDP also fell by 0.6% in Q2 2019, but this was not a recession because growth was positive in Q1 2019 (+0.5%) and Q3 2019 (+0.1%), so it was only one quarter of negative growth.

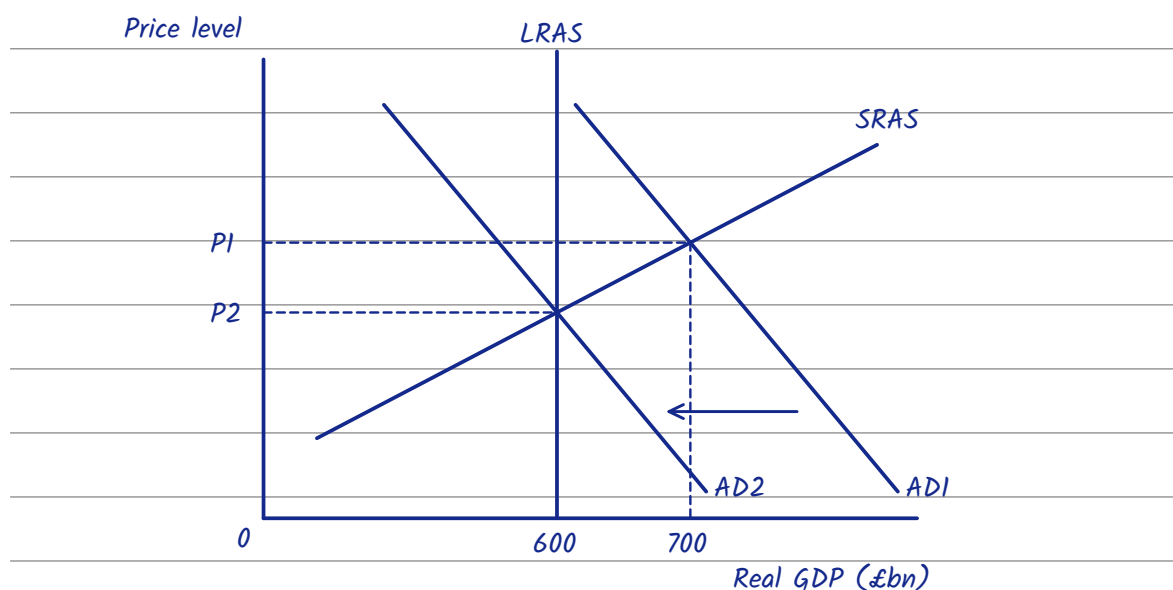
5(a)

A positive output gap occurs when actual (equilibrium) real GDP is greater than the potential, full employment level of real GDP shown by the LRAS, so the economy is operating above its normal productive capacity, which causes inflationary pressure.

In the diagram equilibrium real GDP is £700 bn but LRAS is at £600 bn, so the positive output gap is $£700 \text{ bn} - £600 \text{ bn} = £100 \text{ bn}$.

5(b)

Fiscal policy is the use of government spending and taxation to influence aggregate demand and the economy. To close a positive output gap the government should use contractionary (deflationary) fiscal policy. It could cut government spending (G), e.g. on welfare payments or public sector wages, and/or raise taxes, e.g. income tax, which reduces households' disposable income and so consumption (C), and corporation tax, which reduces firms' post-tax profits and so investment (I). As $AD = C + I + G + (X - M)$, AD shifts left from AD_1 to AD_2 , and the fall is magnified by the multiplier.



As the diagram shows, real GDP falls from £700 bn to the full employment level of £600 bn and the price level falls from P_1 to P_2 , closing the £100 bn positive output gap and reducing demand-pull inflation. Alternatively, supply-side fiscal policy, such as government spending on infrastructure like improved broadband or on training, or tax incentives for investment, would shift LRAS to the right towards £700 bn, closing the gap by raising productive capacity, although this takes longer.

6(a) Overall, UK CPI inflation rose between January 2016 and May 2019, from 0.3% to 2.0%, an increase of 1.7 percentage points, but the trend was not steady. Inflation rose sharply from 0.3% in January 2016 to a peak of 3.1% in November 2017, an increase of 2.8 percentage points, taking it well above the Bank of England's 2% target. It then fell, despite a brief rise to 2.7% in August 2018, to a low of 1.8% in January 2019, a fall of 1.3 percentage points or 42% $((3.1 - 1.8) \div 3.1 \times 100)$. Inflation then rose slightly again to be exactly on the 2% target in May 2019.

6(b) Inflation is a sustained rise in the general price level, measured in the UK by the annual percentage change in the Consumer Price Index (CPI), a weighted average of the prices of a representative basket of goods and services bought by

households.

Falling inflation (disinflation) means the rate of inflation is falling but is still positive, so the average price level is still rising, only at a slower rate. For example, inflation fell from 2.4% in May 2018 to 2.0% in May 2019 (para 1), but prices were still 2.0% higher in May 2019 than a year earlier. A basket costing £100 in May 2018 would cost £102 in May 2019, so consumers do not pay less.

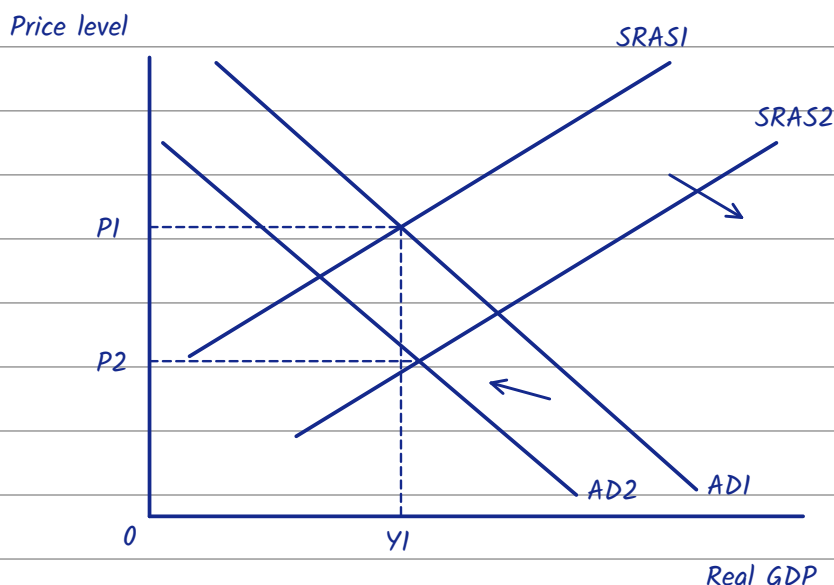
Falling prices means the general price level is actually falling, i.e. the rate of inflation is negative: this is deflation. Fig. 1 shows that inflation never fell below 0.3% between 2016 and 2019, so prices never fell, even though inflation fell between November 2017 and January 2019. This is the point Nigel Waltz makes: falling inflation only means prices are rising more slowly, so if wage growth is below 2.0%, consumers' real incomes still fall.

6(c)

Inflation is a sustained rise in the general price level, measured by the annual change in the CPI. It can be caused by demand-pull factors (AD rising faster than productive capacity) or cost-push factors (rising costs of production shifting SRAS left). Howard Caston expects both to be weak (para 3).

On the demand side, domestic political uncertainty, such as uncertainty over Brexit, reduces business and consumer confidence. Firms postpone investment (I) until the outcome is known, and households save more and delay buying big items such as cars, reducing consumption (C). Difficult global trading conditions, such as trade wars and slower world growth, reduce demand for UK exports (X), lowering net exports. Since $AD = C + I + G + (X - M)$, AD shifts left (AD1 to AD2), reinforced by the negative multiplier, and growth forecasts have been reduced. With less spending, firms have spare capacity and cannot raise prices without losing sales, so there is little demand-pull inflation. On the supply side, falls in oil and energy prices reduce firms' costs of production, since energy is used in making and transporting almost all goods. Lower costs shift SRAS to the right (SRAS1 to SRAS2), reducing cost-push

pressure. Cheaper fuel and household energy bills also directly reduce the CPI, as they carry a large weight in the basket.



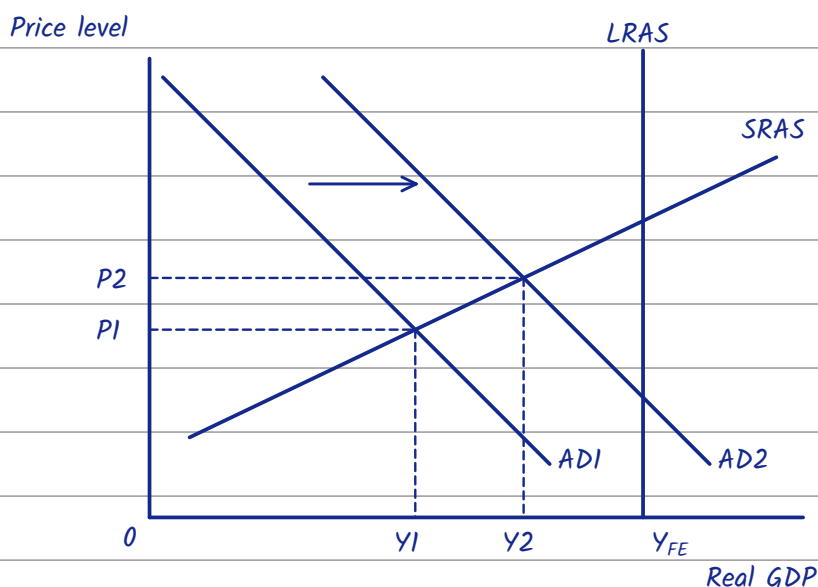
As the diagram shows, the leftward shift of AD and rightward shift of SRAS both put downward pressure on the price level, from P1 to P2, so there is no upward pressure on prices. Other factors in para 1, such as cheaper clothing, falling transport costs and the car price war, add to this. Lower inflation also keeps inflation expectations and wage demands low, avoiding a wage-price spiral. Therefore inflation is likely to stay around the 2.0% target, flat for three to four quarters, unless a shock such as a sharp fall in the pound raises import prices.

6(d)

Expansionary (loose) monetary policy is the use of lower interest rates and an increase in the money supply, for example through quantitative easing (QE), to boost aggregate demand. In the UK it is set by the Bank of England's Monetary Policy Committee, whose main aim is the 2% CPI target. With inflation on target at 2.0% and expected to stay flat (para 3), and growth forecasts falling, there is room to cut Bank Rate.

Lower interest rates reduce the cost of borrowing and the reward for saving, so households borrow and spend more on credit-financed goods such as cars, and those with variable-rate mortgages have more disposable income, raising

consumption (C). More investment projects become profitable, so investment (I) rises. Lower rates also reduce hot money inflows, depreciating the pound, making UK exports cheaper and imports dearer, raising net exports ($X - M$). QE lowers long-term interest rates and raises asset prices, creating a positive wealth effect.



As the diagram shows, AD shifts right from $AD1$ to $AD2$ and, through the multiplier, real GDP rises from $Y1$ to $Y2$, so growth increases and unemployment falls, helping to avoid the 'deep and prolonged period of low or even negative growth' feared in para 4. Because there is spare capacity, the price level rises only slightly, from $P1$ to $P2$, so inflation should stay near target.

However, there are strong arguments against acting immediately. Interest rates were already very low (Bank Rate 0.75% in 2019), so there is little room to cut, and a cut of 0.25% may have little effect. If confidence is low because of political uncertainty, demand for loans is interest inelastic: firms will not invest and households will not borrow whatever the rate, so the economy may be in a liquidity trap and the policy would be ineffective. Banks may also be unwilling to lend.

Secondly, monetary policy works with time lags of 18 to 24 months, so a cut now might take effect when growth has already recovered, causing demand-pull inflation above 2%. The depreciation of the pound would raise import prices,

adding cost-push inflation, and low rates and QE can create asset price bubbles, especially in house prices, increasing household debt and financial instability. Low rates also hurt savers and pensioners, and they reduce the Bank's 'ammunition' for a future recession.

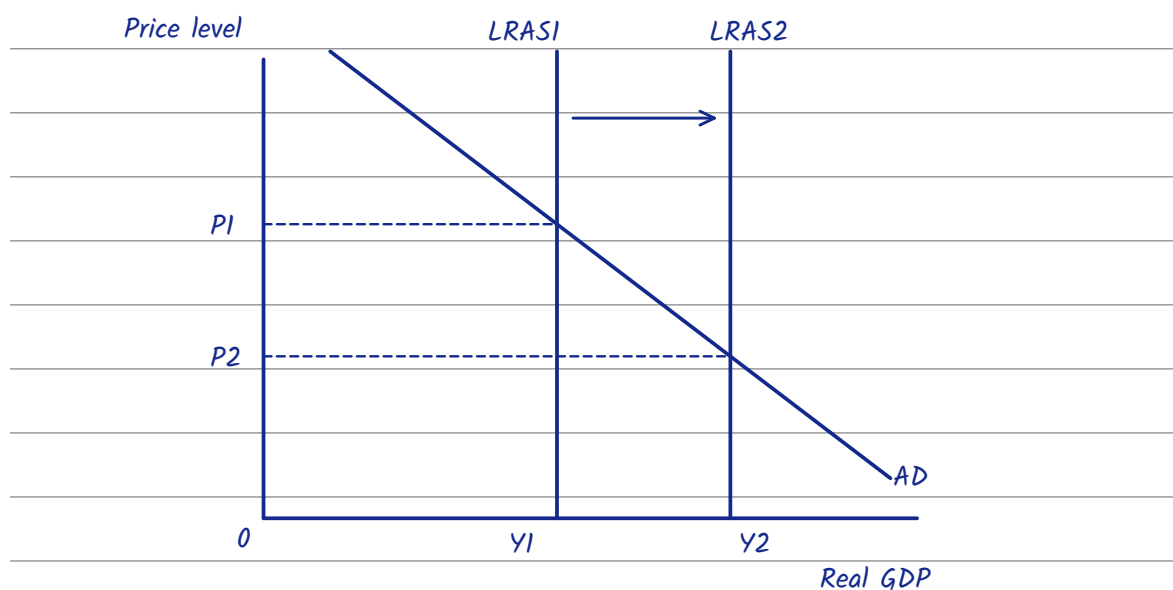
Thirdly, the causes of weak growth are uncertainty and global trade problems, which monetary policy cannot fix. Alternatives may be better: expansionary fiscal policy, such as infrastructure spending, raises AD directly, while supply-side policies raise productivity and LRAS in the long run.

Overall, whether the Bank should 'immediately' loosen policy depends on how severe the slowdown is, the interest elasticity of demand for loans, the time lags and how far confidence can be restored. Since inflation was on target and expected to stay flat, a small cut carries little inflation risk and could support confidence, so expansionary policy is justified if growth keeps falling. However, given the time lags, the risk of asset bubbles and the limited scope to cut rates, the Bank should wait for clearer evidence and use it alongside fiscal policy, rather than relying on monetary policy alone.

8

Labour productivity is output per unit of labour input, measured by the ONS as output (real GDP) per worker hour. A UK productivity gap of about 25% with France and Germany means a French or German worker produces in four hours what a UK worker produces in five. Closing the gap matters because productivity growth is the main source of long-run economic growth and rising real wages: it lowers unit labour costs, improves international competitiveness and raises living standards and tax revenue. Causes of low UK productivity include low investment in capital, weak infrastructure, skills shortages, poor management and a reliance on low-wage, low-skill labour.

Supply-side policies to raise productivity shift the LRAS curve to the right. As the diagram shows, LRAS shifts from LRAS1 to LRAS2, so real GDP rises from Y1 to Y2 while the price level falls from P1 to P2, giving non-inflationary growth.



Firstly, the government could invest in education and training, such as apprenticeships, T-levels and adult retraining, to improve the quality of human capital. More skilled workers produce more per hour, can use advanced technology and are more occupationally mobile. However, this is costly, with an opportunity cost (e.g. less NHS spending), and has long time lags: a better-educated workforce may take ten to fifteen years to affect productivity.

Secondly, it could increase investment in infrastructure. UK road, rail and airport capacity is below our EU competitors, and congestion and slow broadband waste workers' time. Projects such as better rail links and full-fibre broadband reduce firms' costs and raise output per hour. However, such projects are very expensive, take years to plan and deliver, often run over budget (as HS2 has) and can damage the environment.

Thirdly, it could give tax breaks or grants to encourage innovation, research and development and management training, such as R&D tax credits. New products and processes raise efficiency and are a key driver of productivity. However, this is costly in lost tax revenue, and the government may fail to 'pick winners', giving money to firms that would have innovated anyway (deadweight).

Fourthly, it could provide subsidies or capital allowances for fixed capital formation, e.g. letting firms deduct the full cost of new machinery from taxable profits. More capital per worker (capital deepening) raises labour productivity.

However, administering these schemes is costly and can open the possibility of fraud, and firms may not invest if demand is uncertain, for instance because of Brexit.

Fifthly, market-based policies such as reducing regulation and red tape lower firms' costs and give them the freedom to invest and grow, while greater competition forces inefficient firms to improve or leave the market. Some argue the government should also reduce the size of the public sector, since public sector productivity is hard to raise and it attracts talent from the private sector. However, deregulation may weaken protection for workers and the environment, and cutting the public sector would reduce the scope and quality of public services such as health and education.

Finally, raising the National Minimum Wage and reducing reliance on low-skilled immigration would make labour more expensive relative to capital, encouraging firms to invest in machinery and automation rather than depend on cheap labour. However, this raises firms' costs and may cause higher unemployment, especially for the young and low-skilled, and automation may reduce job security, at least in the short run, until workers are retrained.

The effectiveness of these policies depends on several factors. The time scale matters: infrastructure and education take many years, whereas tax incentives for investment can work faster. It depends on the cost and the state of the public finances, since high government debt limits spending, and on whether firms respond to incentives, as business confidence and expected demand are vital. Productivity may also be partly mismeasured, e.g. in services, so the true gap may be smaller. Policies can also conflict: a higher minimum wage might raise productivity but increase unemployment.

In conclusion, there is no single policy that will close a 25% productivity gap.

The most effective approach is a long-term combination of interventionist policies that raise investment in human and physical capital, particularly skills, infrastructure and R&D, supported by tax incentives for business investment, as these tackle the main causes of low UK productivity. Market-based policies such

Question
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as deregulation have a role but are likely to have smaller effects and greater side effects. Since the benefits take years to arrive, the government must commit to these policies consistently over many years rather than seeking quick results.