



Rewarding Learning  
**ADVANCED SUBSIDIARY (AS)**  
General Certificate of Education  
2017

# Economics

Assessment Unit AS 2  
*assessing*  
Managing the National Economy



SEC21

**[SEC21]**  
**MONDAY 22 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 the 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.

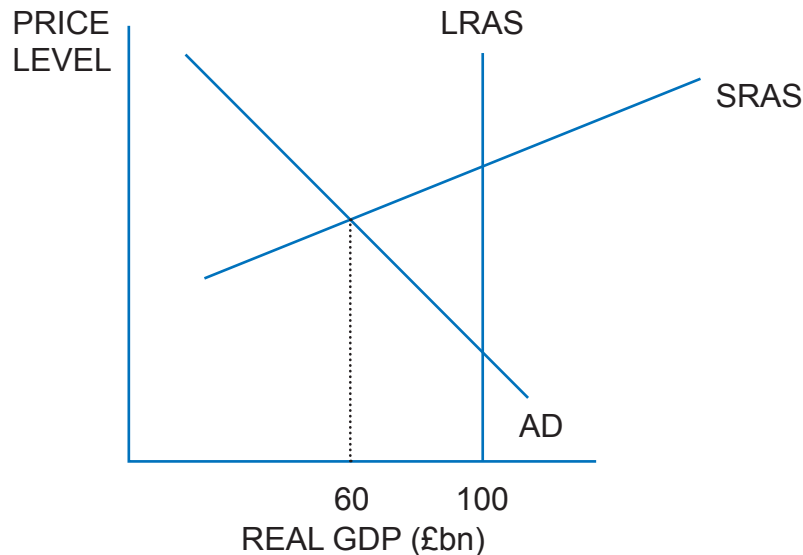
Quality of written communication will be assessed in Questions **6**, **7(b)**, **7(c)**, **7(d)**, **8** and **9**.  
Quantitative skills will be assessed where appropriate.

## Section A

Answer all questions (25 marks)

Show your workings

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



- (a) With reference to the above diagram explain the concept of an output gap. [3]
- (b) With the aid of an appropriate diagram explain the likely impact on this economy of the government adopting an expansionary fiscal policy. [3]
- 2 The following figures relate to the UK labour market in November 2014.

| Category                             | Number of persons |
|--------------------------------------|-------------------|
| In employment                        | 30.8 million      |
| Unemployed                           | 2.0 million       |
| Economically inactive                |                   |
| Total working age (16/65) population | 41.8 million      |

- (a) Using the above table calculate the number of persons who are economically inactive. [2]
- (b) Calculate the UK's rate of unemployment from the above table. [2]

- 3 With reference to the data below explain what is meant by the real rate of interest.

|                                         |      |
|-----------------------------------------|------|
| Average rate of return on bank deposits | 1.5% |
| Consumer Price Index inflation          | 4%   |

[3]

- 4 In 2012 the Gini coefficient of income distribution for China was 0.47. For the USA in the same year the corresponding figure was 0.38.

Explain what is shown by the higher Gini coefficient in China.

[2]

- 5 Explain, with the aid of an appropriate diagram, the likely impact on the value of the pound against the euro of a rise in UK interest rates.

[4]

- 6 In November 2014 the price of oil fell to a 5 year low of \$60 per barrel. With the aid of an appropriate diagram explain the likely impact of low oil prices on an economy which is a major oil importer.

[6]

## Section B: Data Response

### Answer all questions (35 marks)

- 7 The following passage was written in January 2015. Read it carefully and answer the questions which follow.

#### Threat of deflation stalks UK economy

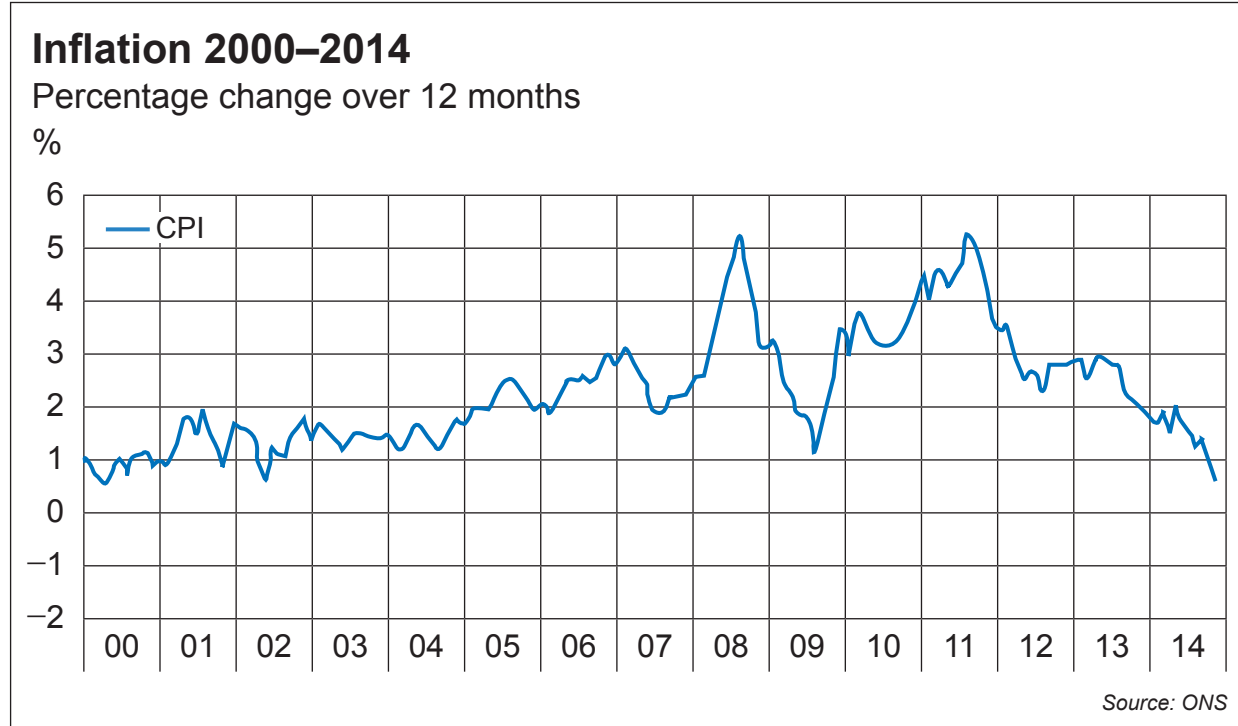


Fig. 1

Consumer Price Inflation time series dataset from The Office for National Statistics.  
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In December 2014 consumer price inflation fell to its lowest level since May 2000. The annualised inflation rate was 0.5 per cent. This is 1.5 per cent below the Bank of England target rate of 2 per cent and will force the Bank's Governor to write a letter to the Chancellor explaining why inflation is more than 1 per cent below target. The previous Bank of England Governor, Mervyn King, had to write several similar letters, but explaining why inflation was significantly above target.

1

Some economists view these figures as evidence of a longer run trend toward lower inflation and perhaps even outright deflation. Paul Hollingsworth of Capital Economics said, "We doubt that inflation has reached its low point yet and a figure of 0.2 per cent in the coming months is highly likely. Indeed negative inflation cannot be ruled out."

2

A number of factors have contributed to the UK's low inflation rate. These include a high value of sterling against the euro, supermarket price wars and the slump in the oil price. Chancellor George Osborne tried to allay fears of deflation by pointing to the international origins of lower prices. He said, "The sharp drop in the Consumer Price Index is almost entirely driven by external factors, such as the oil price which has more than halved since June." He added that the UK could experience a few months of low or even negative inflation without any significant risk to the economy.

3

This rosy view was supported by Bank of England Governor Mark Carney who described falling oil prices as an “unambiguous net positive” for Britain’s economy and by Danny Alexander, the Treasury Chief Secretary, who said lower inflation was acting “like a giant tax cut for the economy”. A further benefit of lower inflation is the reduced probability of any rise in UK interest rates. Bank of England Chief Economist Andy Haldane confirmed that he expected interest rates to stay “lower for longer”.

4

However, not everyone shares this confidence. Many economists fear that the world is on the edge of a long term deflationary spiral with falling prices and little if any economic growth. Falling prices increase the real value of debt, and encourage consumers to delay purchases. Once this self-reinforcing spiral takes hold of an economy it becomes extremely difficult to break free from it. The World Bank has cut its forecasts for global growth in 2015 from 3.4 per cent to 3 per cent. For the Eurozone it predicted growth of 1.1 per cent and for Japan 1.2 per cent. Its chief economist, Kaushik Basu, added that the world was in “a critical situation”, meaning that it could easily slip into a long term recession.

5

Independent economic analyst Gavin Armer argued that inflation and deflation were not equally undesirable. He said, “A low level of inflation imposes no significant costs on the real economy whereas deflation has a negative impact on economic growth, government finances and living standards.”

6

- (a) Describe the trend in CPI inflation from January 2000 till the end of 2014. (**Fig. 1**) [3]
- (b) Explain why UK interest rates were expected to stay “lower for longer”. (Para 4) [8]
- (c) Analyse the reasons for the fall in the UK rate of inflation. (Para 3) [9]
- (d) Evaluate the view that deflation is a much greater threat to the UK economy than inflation. [15]

## Section C: Essays

### Answer one question (20 marks)

- 8 UK output per hour is now (Spring 2015) 2.1 per cent below the peak it achieved in the first quarter of 2008. Low productivity means that GDP growth can only come from population growth and this is unlikely to increase living standards and GDP per capita.

Critically examine the view that addressing this “productivity gap” should be the government’s top economic priority.

[20]

- 9 In a one year period the value of the pound in euros has risen from 1.21 euros to 1.37 euros. Investment bank Goldman Sachs predict a continuation of this trend and anticipate the pound reaching 1.54 euros by 2017. While this would be good news for UK holiday makers it might make life extremely difficult for UK firms trying to export to the eurozone.

Critically examine the view that the Bank of England should take urgent steps to reduce the value of the pound against the euro.

[20]

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**THIS IS THE END OF THE QUESTION PAPER**

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## Sources

Q7. . . Source 1: Reference from: UK inflation rate falls to 0.5% in December. Published by BBC News, 13 January 2015.  
<http://www.bbc.co.uk/news/business-30794673>  
Source 2: Reference from: World Bank cuts global growth forecast. Published by BBC News, 13 January 2015  
<http://www.bbc.co.uk/news/business-30802166>

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Answer booklet

Write the question number in the left-hand margin at the start of each answer.

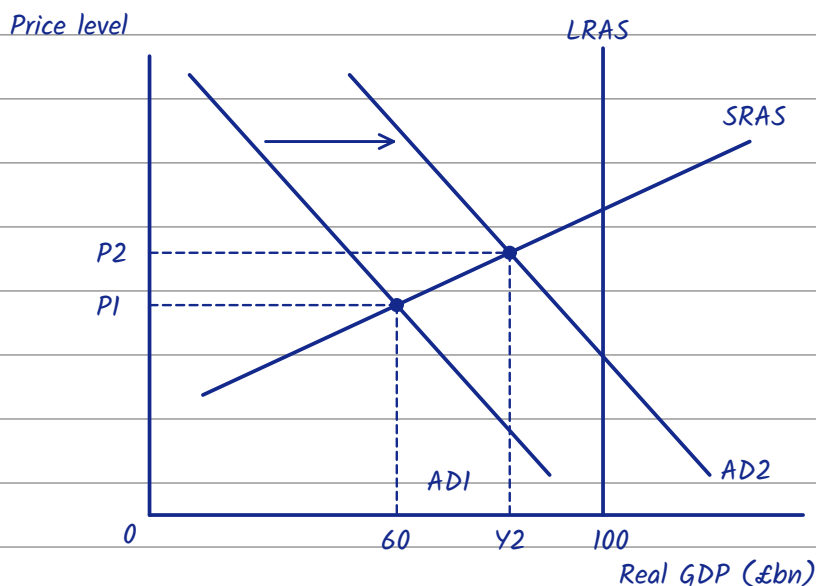
Question  
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1(a)

An output gap is the difference between an economy's actual real GDP and its potential (full capacity) real GDP, shown by the LRAS curve. In the diagram equilibrium output, where  $AD = SRAS$ , is £60bn while potential output on the LRAS is £100bn, so there is a negative output gap of  $£100bn - £60bn = £40bn$ . Resources such as labour are underused, so there is spare capacity and cyclical unemployment.

1(b)

Expansionary fiscal policy means the government raises its spending ( $G$ ) and/or cuts taxes to increase aggregate demand ( $C + I + G + X - M$ ). As the diagram shows, AD shifts right from  $AD_1$  to  $AD_2$ .



Because there is a negative output gap, real GDP rises from £60bn towards the full capacity level of £100bn ( $Y_2$ ), closing much of the gap and reducing unemployment, while the price level rises only modestly from  $P_1$  to  $P_2$  because there is spare capacity. The multiplier effect will make the final rise in AD larger than the initial injection.

2(a)  $\text{Economically inactive} = \text{working age population} - \text{employed} - \text{unemployed}$   
 $= 41.8 - 30.8 - 2.0 = 9.0 \text{ million persons}$

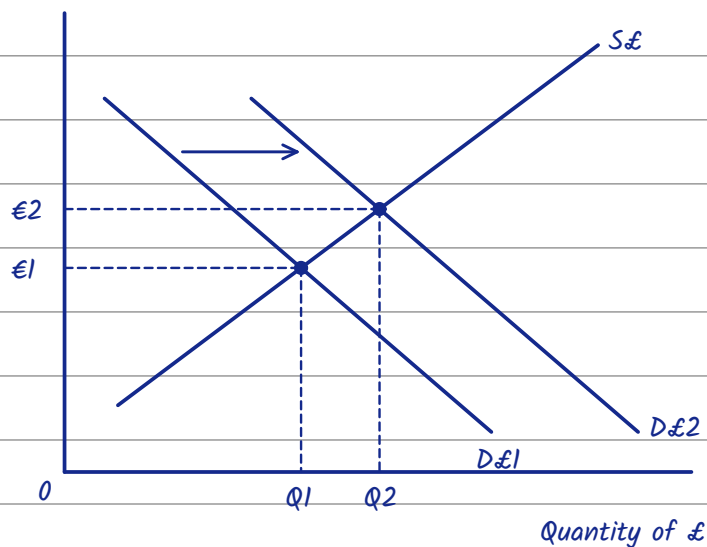
2(b)  $\text{Unemployment rate} = \frac{\text{unemployed}}{\text{labour force (employed + unemployed)}} \times 100$   
 $= 2.0 \div (30.8 + 2.0) \times 100 = 2.0 \div 32.8 \times 100 = 6.1\%$

3 The real rate of interest is the nominal rate of interest adjusted for inflation, so it measures the change in the purchasing power of savings (or the real cost of borrowing).  $\text{Real rate} = \text{nominal rate} - \text{inflation rate} = 1.5\% - 4\% = -2.5\%$ . (Using the deflator:  $1.015 \div 1.04 - 1 = -2.4\%$ .) The real rate is negative, so savers with bank deposits are losing purchasing power each year.

4 The Gini coefficient measures income inequality on a scale from 0 (perfect equality) to 1 (perfect inequality). China's higher figure (0.47 against 0.38) shows that income is distributed more unequally in China than in the USA, so China's Lorenz curve lies further from the line of perfect equality.

5 A rise in UK interest rates increases the return on sterling deposits and UK bonds relative to eurozone assets. This attracts inflows of 'hot money' from investors, who must buy pounds with euros to invest in the UK, so the demand for pounds rises. Some UK savers may also keep funds at home, reducing the supply of pounds. As the diagram shows, demand for pounds shifts right from D£1 to D£2.

Price of £ (€)

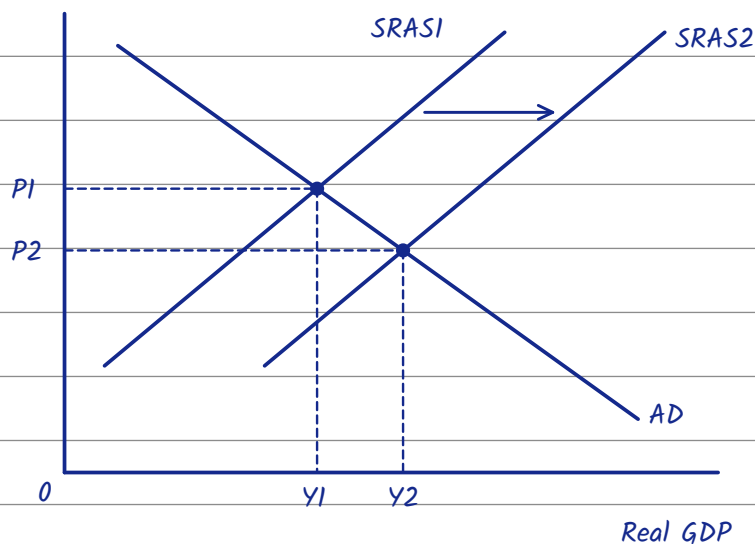


The equilibrium value of the pound rises from €1 to €2 per pound, so sterling appreciates against the euro (a rise in the exchange rate) and the quantity of pounds traded rises from  $Q_1$  to  $Q_2$ .

6

Oil is a key input into the production of a wide range of goods and services, through energy, transport and raw materials such as plastics. For a major oil importer, a fall in the oil price to \$60 per barrel significantly lowers firms' costs of production, so the short run aggregate supply curve shifts to the right from  $SRAS_1$  to  $SRAS_2$ , as shown below.

Price level



The economy moves along AD to a new equilibrium with a lower price level ( $P_1$  to  $P_2$ ) and higher real GDP ( $Y_1$  to  $Y_2$ ). Lower inflation and higher output mean more employment, so the trade-off between inflation and growth improves.

There are also demand side effects. Lower fuel and energy prices raise households' real disposable income, increasing consumption and so shifting AD to the right, which adds further to real GDP. Firms' profits rise, which may encourage investment. Because the country is a major importer, its import bill for oil falls, which improves the current account of the balance of payments. However, if falling prices become widespread they may set off a deflationary spiral in which consumers delay purchases expecting lower prices, reducing AD. Overall, though, for an oil importer the impact is likely to be strongly positive: lower inflation, faster growth and a stronger current account.

7(a)

Overall CPI inflation rose from about 1% in 2000 to around 3% by 2007, with fluctuations around the trend. In 2008 it spiked sharply to about 5.2% before falling steeply to around 1.1% in 2009. It then rose again to a second peak of about 5.2% in 2011, after which it followed a clear downward trend from 2012 to 2014, ending at about 0.5%, its lowest level since 2000 and well below the 2% target.

7(b)

The Bank of England's Monetary Policy Committee sets Bank Rate to meet the government's CPI inflation target of 2%. In December 2014 inflation was only 0.5%, which is 1.5 percentage points below target (para 1), so there is no case for raising interest rates; if anything monetary policy needs to stay loose.

The monetary transmission mechanism explains why. A rise in interest rates increases the cost of borrowing and the reward for saving, so consumption (especially on credit and mortgages) and investment fall. Higher rates also tend to appreciate sterling, making exports dearer and imports cheaper. All of this shifts aggregate demand to the left and puts further downward pressure on

prices. With inflation already close to zero, a rate rise would risk pushing the UK into outright deflation.

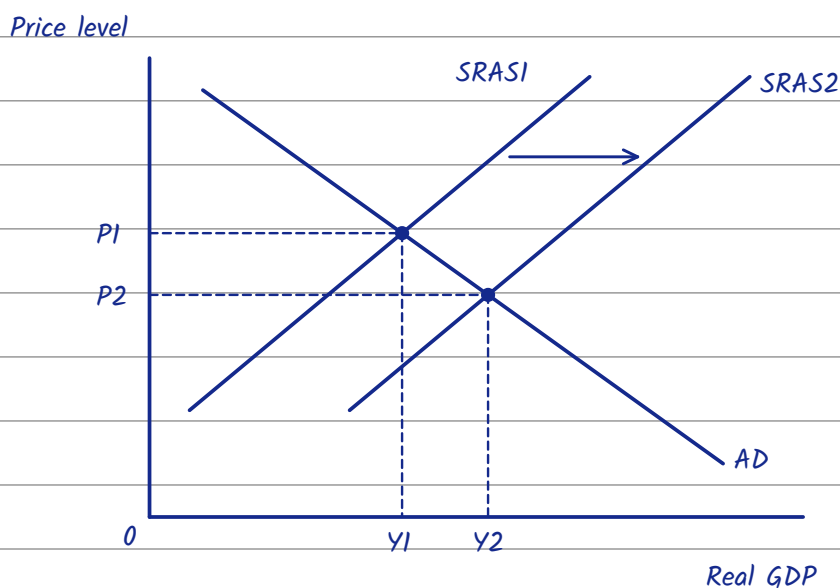
Inflation expectations for 2015 onwards are also low. Capital Economics expected inflation to fall to 0.2% and said 'negative inflation cannot be ruled out' (para 2), and the fall in the oil price, which has more than halved since June (para 3), will keep cost pressures down for some time. The MPC is forward looking and targets inflation about two years ahead, so if forecast inflation stays below 2% there is no reason to tighten policy.

Finally, the global outlook is weak: the World Bank cut its 2015 world growth forecast from 3.4% to 3% and eurozone growth is forecast at only 1.1% (para 5). Weak demand for UK exports reduces inflationary pressure and means a rate rise could damage the recovery. This is why Andy Haldane expected rates to stay 'lower for longer' (para 4), at the record low of 0.5%.

7(c)

The rate of inflation is the percentage increase in the general price level over 12 months, measured in the UK by the Consumer Price Index, a weighted average of the prices of a representative basket of goods and services. It fell to 0.5% in December 2014 (para 1) for several reasons.

First, the slump in the oil price, which more than halved since June (para 3), reduced firms' costs of production for energy, transport and raw materials, and directly cut petrol and household fuel prices in the CPI basket. This cost-push effect shifts SRAS to the right, lowering the price level, as below.



Second, the high value of sterling against the euro (para 3) makes imports from the eurozone, the UK's largest trading partner, cheaper in pounds. Imported consumer goods are part of the CPI, and imported raw materials and components lower UK firms' costs. A strong pound also makes UK exports dearer, reducing net exports and so aggregate demand, which further eases demand-pull pressure.

Third, supermarket price wars (para 3), driven by the rise of discount retailers such as Aldi and Lidl, have forced the big supermarkets to cut food and grocery prices. Since food has a large weight in the CPI, increased competition has had a significant effect on measured inflation.

In addition, inward migration has increased the supply of labour, keeping wage growth and therefore unit labour costs low, while weak demand after the recession left a negative output gap. As George Osborne said, the fall was 'almost entirely driven by external factors' (para 3), suggesting that much of it is temporary cost-push relief rather than a collapse in domestic demand.

7(d)

Inflation is a sustained rise in the general price level, while deflation is a sustained fall in the general price level, that is, negative inflation. In December 2014 UK CPI inflation was 0.5% and economists warned that 'negative inflation

cannot be ruled out' (para 2).

There are strong reasons to see deflation as the greater threat. If consumers expect prices to keep falling they delay purchases of durable goods such as cars and furniture (para 5), so consumption, the largest component of AD, falls.

Firms facing falling prices and sales cut investment, output and jobs, which reduces incomes and spending further. This is the 'self-reinforcing' deflationary spiral that is 'extremely difficult to break free from' (para 5).

Deflation also increases the real value of debt (para 5). With UK household debt high, falling prices and wages make mortgages and loans harder to repay, so indebted households cut spending and defaults may rise, damaging banks.

Government debt also becomes harder to service as nominal tax revenue grows more slowly, worsening the public finances. When prices fall, holding cash becomes attractive because its real value rises, so money is hoarded rather than spent or invested. Finally, monetary policy becomes ineffective: interest rates are already at 0.5% and cannot be cut much below zero, so real interest rates rise as prices fall. Japan's experience of 'lost decades' of falling prices and stagnant growth since the 1990s shows how damaging and persistent deflation can be, and the World Bank's warning that the world is in 'a critical situation' (para 5) suggests the risk is real.

However, inflation also imposes costs. High or unpredictable inflation, like the 5.2% peaks in 2008 and 2011 (Fig. 1), erodes real incomes, especially of those on fixed incomes and savers, creates shoe leather and menu costs, redistributes wealth arbitrarily from lenders to borrowers, and reduces the international competitiveness of UK exports. It creates uncertainty that discourages investment, and if it is allowed to accelerate, as in the UK in the 1970s when it exceeded 20%, the cost of bringing it down through high interest rates and recession is very large. Historically the UK has had far more problems with inflation than deflation: Mervyn King had to write several letters because inflation was above target (para 1).

Whether deflation is a much greater threat depends on several factors. First, its

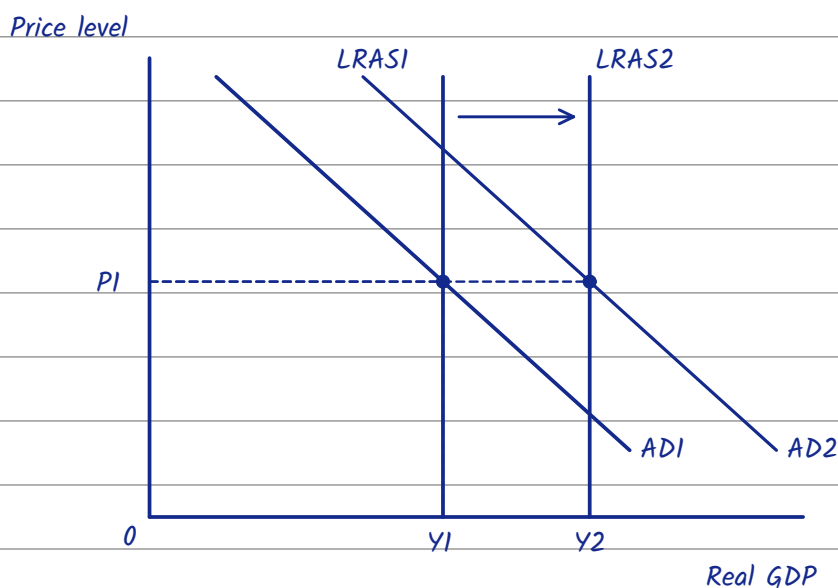
cause: 'good' deflation caused by falling oil prices and supply side improvements raises real incomes, acting 'like a giant tax cut' (para 4), and is very different from 'bad' deflation caused by collapsing demand. Second, its scale and duration: a few months of slightly negative inflation, as Osborne argued (para 3), is unlikely to change expectations, whereas years of falling prices would. Third, probability: the oil effect will drop out of the annual figures after 12 months, so persistent UK deflation is less likely than in the eurozone.

On balance, I agree that deflation is potentially the greater threat because its effects are self-reinforcing and the usual policy response is weakened, whereas inflation can be controlled by raising interest rates. As Gavin Armer says, low inflation imposes no significant costs (para 6). However, in early 2015 the low inflation was mainly a benign, supply-driven, temporary effect, so the immediate risk to the UK was limited, provided inflation expectations remain anchored around the 2% target.

8

Productivity is output per unit of input, usually measured as labour productivity: real output per worker or, more accurately, output per hour worked. UK output per hour in spring 2015 was still 2.1% below its early 2008 peak. Had the pre-crisis trend of about 2% a year growth continued, it would be roughly 15% higher, which is the 'productivity gap'. The UK also lags Germany, France and the USA, whose output per hour is around 20 to 30% higher.

Real GDP growth can only come from more workers and hours or from higher productivity. Growth driven by population growth alone raises total GDP but not GDP per capita, so it does little for living standards. Higher productivity, however, increases the economy's productive potential and shifts LRAS to the right, as the diagram shows, allowing non-inflationary growth.



With LRAS shifting from LRAS1 to LRAS2, AD can grow from AD1 to AD2 and real GDP rise from Y1 to Y2 without any rise in the price level. Higher productivity lowers unit labour costs, so firms can raise wages without raising prices: real wages and living standards rise. This is why Paul Krugman said that 'productivity isn't everything, but in the long run it is almost everything'.

The long term benefits are wide. Lower unit labour costs make UK goods more internationally competitive, boosting exports and improving the current account deficit. In the labour market, more productive workers command higher wages, and well paid jobs replace low wage, low productivity employment. Faster growth raises tax revenue and reduces spending on benefits, helping to reduce the budget deficit and national debt without painful austerity. Higher profits also fund further investment, creating a virtuous circle.

Government could close the gap through supply side policies: investment in infrastructure such as transport and broadband, spending on education, apprenticeships and skills to raise human capital, tax incentives such as R&D tax credits and capital allowances to encourage investment, and deregulation and competition policy to push firms to innovate.

However, there are reasons why it may not be the top priority. First, supply side policies are slow: education and infrastructure take many years to raise

productivity, whereas problems such as unemployment or a deficit need action now. Second, the causes of the gap are uncertain. Some of it may reflect mismeasurement of output in services and the digital economy, or the shift to low paid, flexible work, which has kept unemployment low at 5.5%. Raising productivity quickly might mean fewer jobs in the short run. Third, there is an opportunity cost: spending on infrastructure or skills must be financed by higher taxes or borrowing, conflicting with deficit reduction. Fourth, the benefits may be unevenly distributed: if gains go mainly to owners of capital as profits rather than to workers as wages, living standards for most households will not rise and inequality may increase.

Other objectives also matter. Price stability is a precondition for growth, since high inflation creates uncertainty that discourages investment, but this is delegated to the Bank of England and inflation was near 0% in 2015. Low unemployment is important for welfare, but UK employment was at record levels. The budget deficit, at around 5% of GDP, was a concern, but faster productivity growth is itself the most sustainable way to reduce it.

In conclusion, addressing the productivity gap should be the government's top long run economic priority, because it is the only sustainable source of rising GDP per capita, real wages and healthier public finances, and it supports the other macroeconomic objectives rather than conflicting with them. However, it depends on time scale: in the short run the government cannot ignore stability, so the priority should be pursued through targeted, well evaluated supply side policies, especially in skills, infrastructure and investment, while monetary policy maintains low inflation and steady demand.