



Data Response Case Studies

For AS/A Level Year 1 OCR
Economics: Macroeconomics

Second Edition, February 2022

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Contents

Thank You for Choosing ZigZag Education	ii
Teacher Feedback Opportunity.....	iii
Terms and Conditions of Use	iv
Teacher's Introduction	1
The UK's slump in consumption during the recession	2
Case Study.....	2
Questions	3
The economics of immigration	4
Case Study.....	4
Questions	5
Economic growth in the UK – back to business as usual?	6
Case Study.....	6
Questions	7
Mozambique – an African lion?	8
Case Study.....	8
Questions	9
Youth Unemployment in Italy.....	10
Case Study.....	10
Questions	11
UK unemployment – successes and challenges.....	12
Case Study.....	12
Questions	13
UK inflation in the 1970s	14
Case Study.....	14
Questions	15
Canada's Economic Policies	16
Case Study.....	16
Questions	17
Greece's debt problem.....	18
Case Study.....	18
Questions	19
Monetary and fiscal policy in the Great Depression.....	20
Case Study.....	20
Questions	21
Ireland's Housing Market Bubble.....	22
Case Study.....	22
Questions	24
Supply-side policies – privatisation in the UK	25
Case Study.....	25
Questions	26
Productivity – the Key to Long-run Growth?.....	27
Case Study.....	27
Questions	28
Policy conflicts – inflation and unemployment	29
Case Study.....	29
Questions	30
China and Exchange Rate Management	31
Case Study.....	31
Questions	33
Should we be worried about the UK's current account deficit?.....	34
Case Study.....	34
Questions	35
When will the UK raise interest rates?	36
Case Study.....	36
Questions	37
Answers	38

Teacher's Introduction

This resource is designed to be used for teaching OCR AS Level Economics Component 2: Macroeconomics. It is designed to be co-teachable with A Level, covering only 'Year 1' topics. The resource consists of 17 Data Response Case Studies intended for students to complete as homework tasks.

The case studies are presented in specification order, collectively covering each topic in the AS Level specification. Each case study contains detailed information (including diagrams and data), and tasks and questions.

The 'Use the data' tasks focus particularly on quantitative skills, and the 'Test your knowledge' mainly on AO1/2 knowledge and application skills. The extended-response questions are an opportunity for students to practise higher-level analysis and evaluation skills. Most of the questions given are in exam style, although we have not limited questions to this style except in the case of the extended-response questions. Detailed answers are provided for all tasks and questions.

Reading through each study and answering the questions is expected to take 20–30 minutes, not including the extended-response questions at the end of each case study. One option for using these is to work through a case study in class and set the exam-style evaluation question as homework.

This resource will help prepare students for the Paper 2 component of the AS and A Level exam, but also stimulate an interest in the real-world applications of macroeconomics. Each case study uses real data, introducing the student to a fascinating array of contemporary and historical issues relating to the UK economy.

I hope this resource helps you to bring economics to life for your students.

March 2018

Update v2, February 2022

Minor updates to match 2019 specification: case studies have been rearranged to reflect the new divisions between Year 1 and Year 2 content. The case studies contained in this resource are as below.

Case Study	Spec reference
1. The UK's slump in consumption during the recession	Aggregate Demand and Aggregate Supply – 'Aggregate Demand (AD)'
2. The economics of immigration	Aggregate Demand and Aggregate Supply – 'Aggregate Supply (AS)'
3. Economic growth in the UK – back to business as usual?	Economic Policy Objectives – 'Economic Growth'
4. Mozambique – an African lion?	Economic Policy Objectives – 'Economic Growth' and 'Development'
5. Youth unemployment in Italy	Economic Policy Objectives – 'Employment'
6. UK unemployment – successes and challenges	Economic Policy Objectives – 'Employment'
7. UK inflation in the 1970s	Economic Policy Objectives – 'Inflation'
8. Canada's economic policies	Implementing Policy – 'Fiscal Policy'
9. Greece's debt problem	Implementing Policy – 'Fiscal Policy'
10. Monetary and fiscal policy in the Great Depression	Implementing Policy – 'Fiscal Policy' and 'Monetary Policy'
11. Ireland's housing market bubble	Implementing Policy – 'Fiscal Policy' and 'Supply-side Policy'
12. Supply-side policies – privatisation in the UK	Implementing Policy – 'Supply-side Policy'
13. Productivity – the key to long-run growth?	Implementing Policy – 'Supply-side Policy'
14. Policy conflicts – inflation and unemployment	Implementing Policy – 'Policy Conflicts'
15. China and exchange rate management	The Global Context – 'International Trade' and 'Exchange Rates'
16. Should we be worried about the UK's current account deficit?	The Global Context – 'Balance of Payments'
17. When will the UK raise interest rates?	Various topics in Component 2

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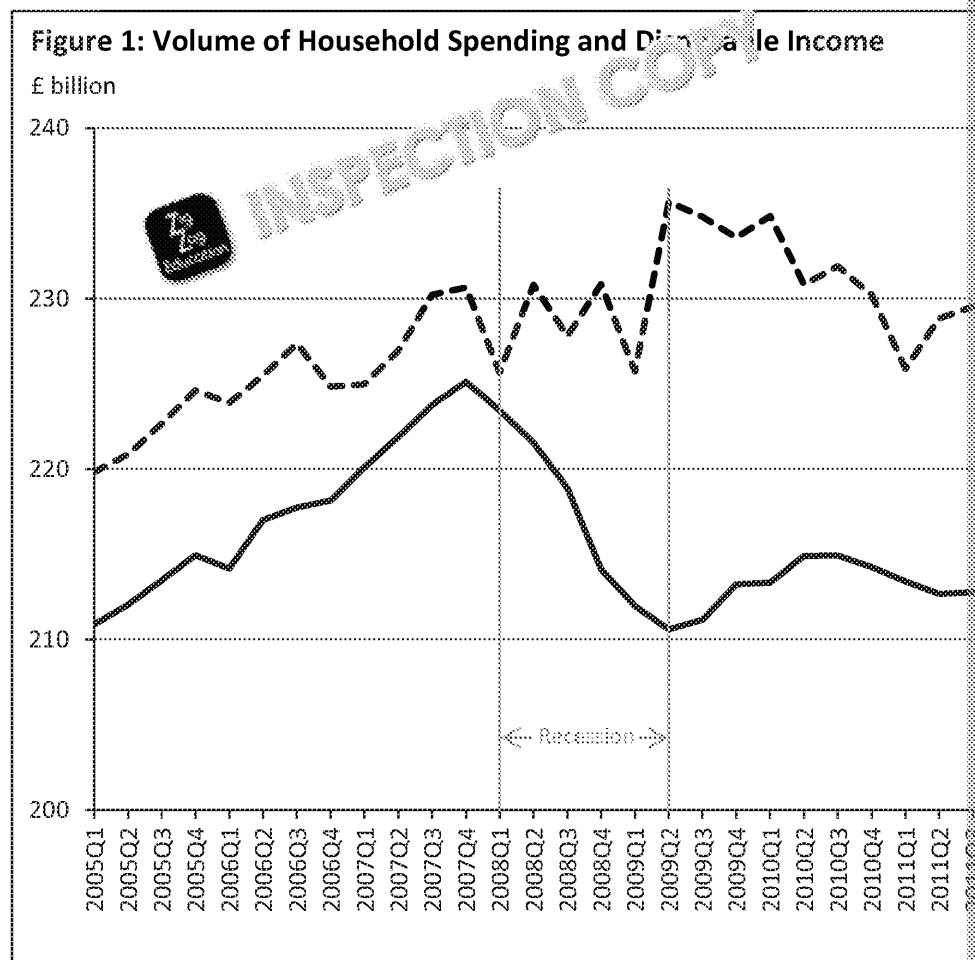
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The UK's slump in consumption during

This case study requires knowledge of the topic 'Aggregate Demand.' You should be familiar with the components of AD and the influences on these components (particularly consumption).

The 2008 global financial crisis had a pronounced effect on aggregate demand. The largest component of aggregate demand is consumption – accounting for over 60% of GDP. Figure 1 shows how household spending (which is equivalent to consumption) changed during the recession:



The Labour government at the time attempted to reverse the trend using many tools, such as adjusting taxes (e.g. lowering VAT and increasing the income tax threshold), bailing out the financial sector, and relying on the Bank of England to lower interest rates (interest rates fell steadily from 5.75% in 2007 Q4 down to 0.5% by 2009 Q2).

It is interesting to compare the trend in disposable income with the trend in household spending. Even though disposable income remained fairly constant (even increasing in 2009), household spending fell sharply. This is despite the fact that disposable income is usually believed to be the main factor affecting consumption.

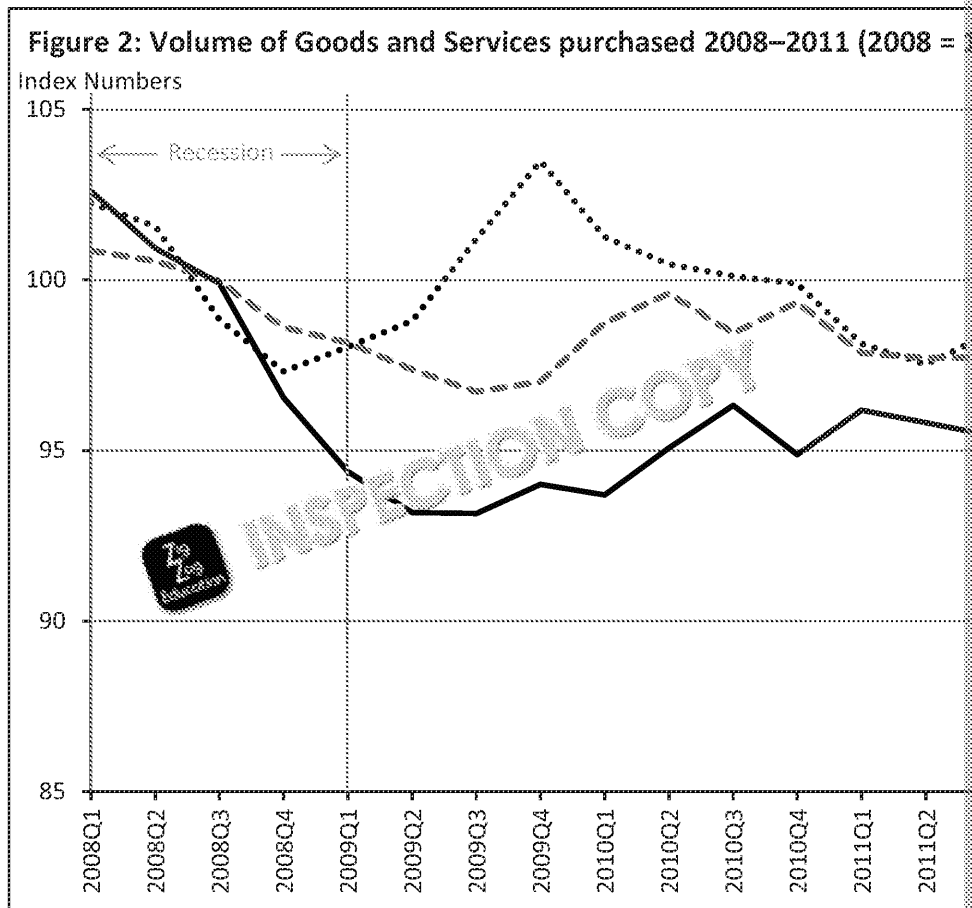
The main explanation for this is that household saving increased in the same period. Many households chose to pay off their debts that they had accumulated during the mid 2000s. In economic terms, paying down debts is classed as saving.

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Figure 2 shows how consumer spending on different types of goods was affected by the recession.



Non-discretionary goods and services are essential products, such as staple food. Discretionary goods and services are desirable, but not necessary. Examples include luxury goods and leisure activities.

Since 2011, consumption seems to have grown slowly but steadily as the government's finances improved.

Use the data

1. Is the data in Figure 1 in real or nominal terms?
2. Looking at Figure 2, estimate (in percentage terms) how much discretionary goods and services were purchased in 2008 Q3 and 2009 Q3.
3. In 2009 Q1 (quarter 1), was spending on discretionary goods and services higher or lower than spending on non-discretionary goods and services?

Test your knowledge

1. Define aggregate demand (AD).
2. What is the formula for aggregate demand?
3. By approximately how much did household spending fall between its highest point and its lowest point as shown in Figure 1?
4. Using an AD curve, show the effect of a fall in the rate of VAT.

Extended-response question

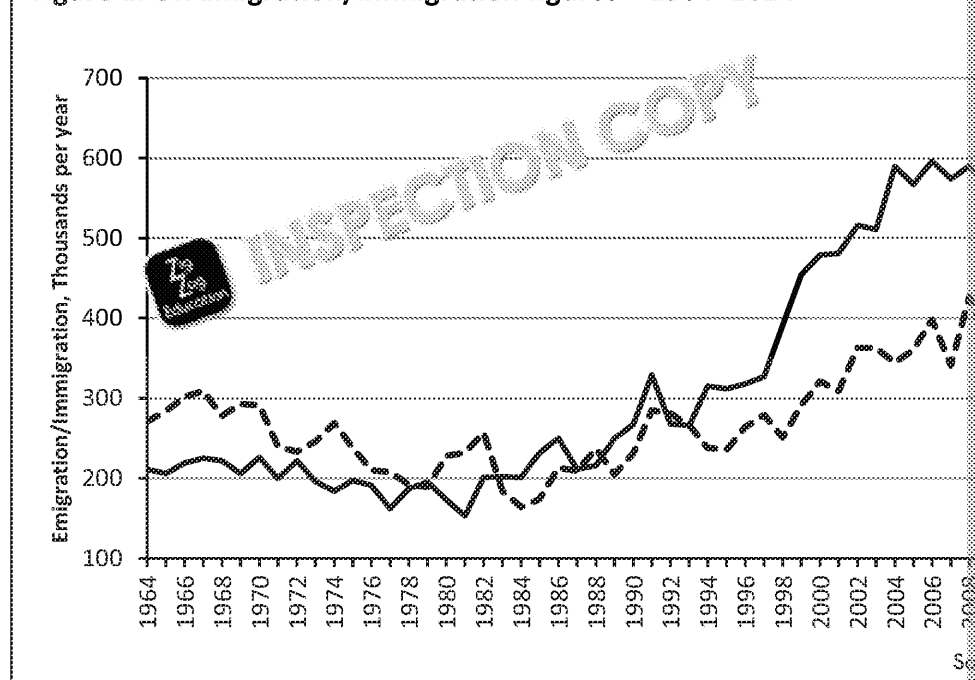
1. Discuss the relative importance of interest rates and consumer confidence in determining aggregate demand.

The economics of immigration

This case study requires knowledge of the topic 'Aggregates'

The humanitarian crisis in Syria has revived old debates about the effects of 'host' nations. There are a plethora of arguments related to the *social* consequences of migration. Information on the *economic* effects of migration is relatively scarce.

Figure 1: UK Emigration/Immigration figures – 1964–2014



There are several different areas of the economy that migration studies may consider (one of the most common areas is the effect of migration on the wages and employment rates of native workers belonging to the host nation). The concern is that the influx of labour depresses wages and employment (using a simple demand and supply diagram, immigration is an increase in the supply of labour).

Others counter that this argument falls foul of the 'lump of labour' fallacy: the fallacy that there are only a fixed number of jobs to go around in the economy. Since migrants also contribute to greater demand for goods and services, the negative effect on employment and wages may be only temporary.

Evidence on this is mixed. In the US, some studies have found a small, negative effect on native wages. European studies have tended to produce 'statistically insignificant' results (meaning that the estimates of the effect on wages are probably close to zero). On the other hand, there is some evidence that immigration instead reduces the employment levels of natives (people who are competing for jobs due to the greater competition for jobs).

The differences in results may be because labour protection laws in Europe are quite inflexible (or 'sticky'), but the labour market in the US is more *laissez-faire*.



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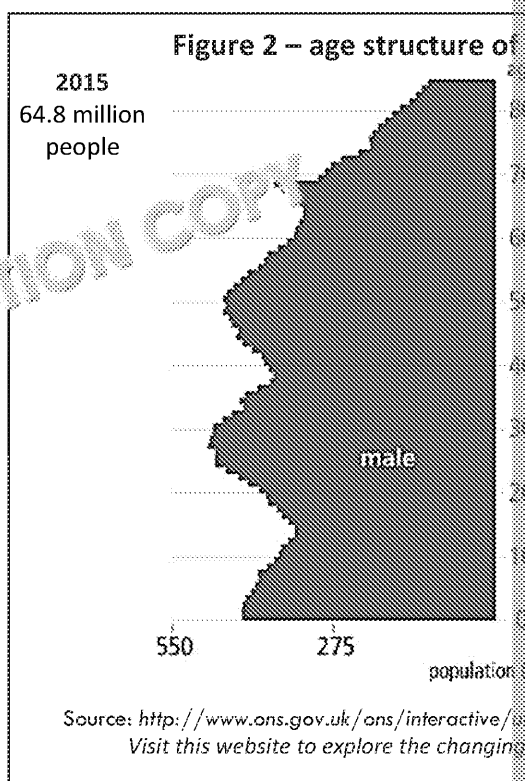


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observation is that the effect on natives depends on whether the migrants are skilled or unskilled. Unsurprisingly, skilled migrants seem to benefit host nations more. One of the benefits supporters of migration point to is that it boosts the size of the population – since migrants tend to be young people looking for work. This increases the size of the labour force as a proportion of the total population. Figure 2 shows the UK's 'population pyramid' in 2015. The bulges show the effect of 'baby

One of the counterarguments to this is that migration simply delays the 'demographic time bomb' facing developed countries – there will still be the problem of an ageing population in the future even after migration levels tail off.

The economic arguments around migration are highly complex and often country-specific – as a discipline economics is a long way off from resolving all the nuances.



Use the data

'Net migration' is the difference between immigration and emigration – an annual net migration of 100,000 indicates that 100,000 more people immigrated into a country than emigrated.

- When did immigration figures begin to consistently overtake emigration figures?
- Estimate net migration into the UK in the years (using a ruler might be helpful):
 - 2006
 - 1979

The working age population consists of those people aged 16–64. Looking at Figure 2:

- Suppose one million migrants aged 20–29 came to the UK and gained employment. What effect on the labour force participation rate?
- Now suppose that the birth rate and death rate remain constant, and no more migrants came. What effect on the labour force participation rate after 50 years?

Test your knowledge

'Net migration' is the difference between immigration and emigration – an annual net migration of 100,000 indicates that 100,000 more people immigrated into a country than emigrated.

- Estimate net migration into the UK in 2010.
- Briefly describe the trend in net migration from 1964–2014.
- Distinguish between short-run aggregate supply and long-run aggregate supply.
- State and explain two other factors that can increase LRAS, aside from demographic change.

Extended-response question

- Using information from the extract and your own knowledge, evaluate the effectiveness of policies aimed at encouraging higher levels of migrant workers.

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Economic growth in the UK – back to bus

This case study requires knowledge of the topic 'Economic

The financial crisis of 2008 saw the UK experience the worst recession since the Great Depression. The recession saw rising unemployment, a dramatic fall in bank lending (credit), and unprecedented stimulus measures from the UK government and Bank of England to try to steer the economy back towards positive growth.

Now that the worst of the crisis seems to be over, many commentators and external organisations (such as the IMF) are optimistic about the future of the UK economy – not least since economic growth has not dropped that of all the other 'G7' countries (see Figure 2).



Figure 1: UK real growth rate

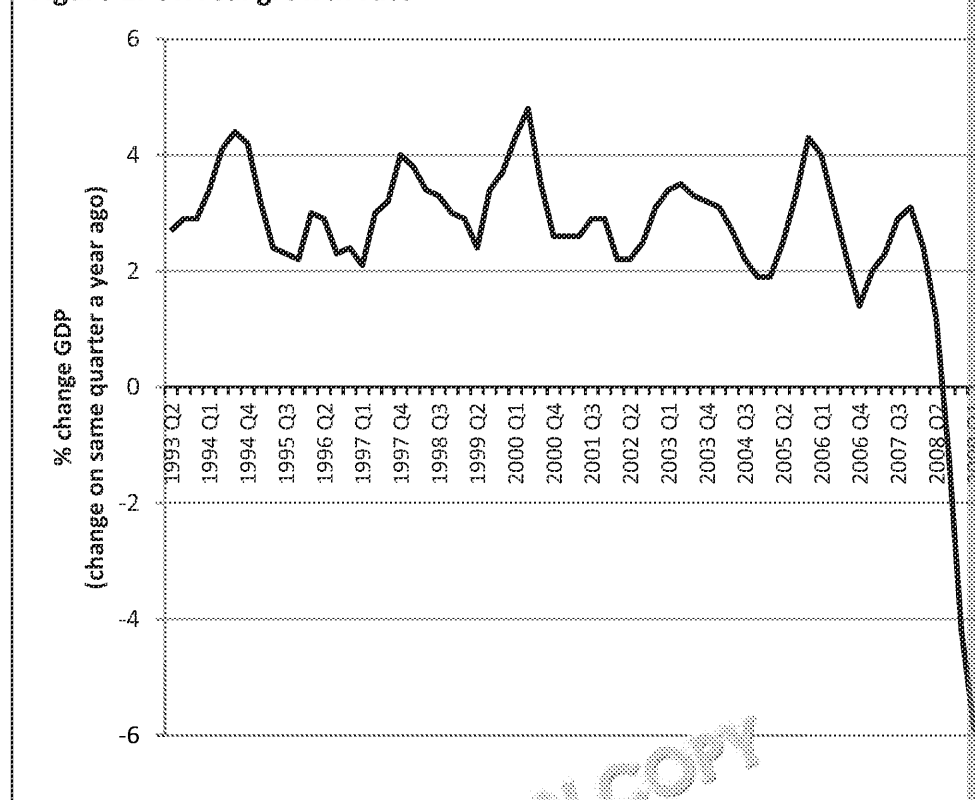


Figure 2

G7 Country	UK	Canada	USA	Germany	France
2014 annual GDP growth rate	2.9	2.4	2.4	1.6	0.7

Many other economic indicators also seem to be showing signs of health – the budget deficit is slowly narrowing (although not as quickly as the Chancellor hopes), wages are rising for the first time in several years (particularly notable since 2008). Some attribute this to sensible economics on the Chancellor's part – strong fiscal responsibility seem to have boosted market confidence (the costs of borrowing

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have remained low – unlike imperilled economies such as Greece). Others government spending more gradually would have led to more reliable growth. More to do with the revival of the world economy than any policy of the G20, oil has also been an unexpected bonus for the UK as a net importer of oil.

In the 2015 Autumn Statement, the Chancellor announced relatively expansionary measures designed to boost economic growth, rather than lower the national debt) as economic growth predictions by the Office for Budget Responsibility (OBR) included postponing cuts to tax credits, and increasing the police budget at a time of

Critics argue that predicting economic growth rates is notoriously difficult, and that forecasts is a risky move. There are some real threats to the UK and the world, including a slowdown of economic growth in China, and a chronic shortage of labour in the market. Hopefully the forecasters are right to predict that the UK will return to growth. We can't know for sure.



Use the data

1. Estimate the average annual rate of GDP growth in the UK from 1993 to 2007.
2. Briefly describe how Figure 1 would change if nominal GDP figures were used.
3. Suppose the USA's real GDP at the start of 2014 was \$17 trillion. What would the figures in the extract?

Test your knowledge...

1. Define *real* GDP. How does it differ from *nominal* GDP?
2. Why is GDP measured?
3. Give two reasons from the passage why the UK's growth rate was relatively low.
4. Explain **one** cost and **one** benefit of economic growth.

Extended-response question

1. 'Once population size and inflation are accounted for, GDP is a good measure of an economy is.' Evaluate this claim.



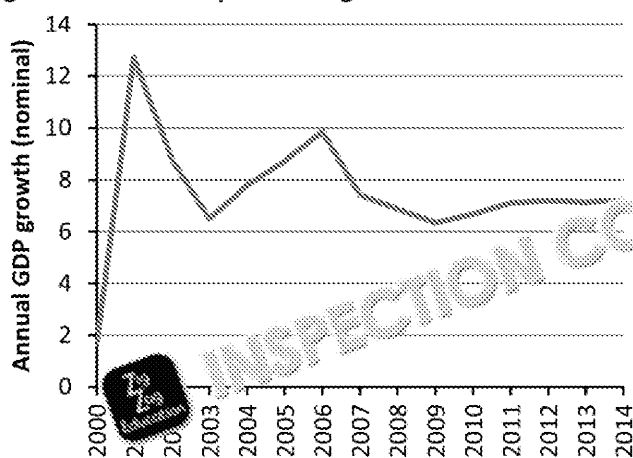
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Mozambique – an African lion

This case study requires knowledge of the topic 'Economic Growth'

Figure 1: Mozambique's GDP growth 2000–2014



Figures are in constant 2005 US\$

Source: World Bank.

African economies in the media – for perception of Africa under-developed. However, there are a number of African bootsteps of the African economic growth among these stellar. Having shed its coat a 16-year civil war, Mozambique's economic impressive.

Mozambique's huge (particularly coal and gas) have made it a vital trade partner for China and to a strong currency (the metical) and high levels of foreign investment into

Having abundant natural resources does not always translate into economic have suffered from the so-called 'resource curse', where excessive dependence harms economic growth. This could be because other industries are neglected captured via corruption. However, in the case of Mozambique, the benefits endowments have been augmented by sound macroeconomic management education spending and policies to promote competition. Mozambique now business hubs, complete with shopping centres, restaurants and traffic jams

Despite all this, there are concerns that this surge in economic growth is not development. Figure 2 shows the components of the HDI index for Mozambique disappointing 180th out of 188:

Country	HDI value (2014)	HDI rank (out of 188)	Life expectancy at birth	Expected years of schooling	Mean years of schooling
Mozambique	0.416	180	55.1	9.3	
India	0.609	111	68	11.7	
UK	0.857	14	80.7	16.2	

Health
Education dimension

Figure 2

Note: 'Expected years of schooling' is for children entering school age, 'mean years of schooling' is for the adult population.
Source: Human Development Report 2014

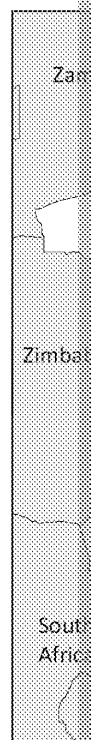
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One of the big concerns is that poverty rates (one of the key dimensions of economic development) are still high, with over half of the 25 million people in poverty. If the gains from economic growth do not trickle down into all parts of society, Mozambique's success may be short-lived. African history is littered with examples of countries where corruption chokes off economic development.

Furthermore, as with many developing countries, there is a substantial gap in living standards between the urban and rural populations (the same is true of some countries that are a bit more developed, including China). Many researchers argue that improving agricultural productivity is one of the most important ways of closing this gap, since a very high proportion of the rural workers' income depends on agriculture.



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Use the data

1. Briefly compare Mozambique's GDP growth rate to the UK's.
2. Look at Figure 2, what does it mean to say that the living standards figures are
 - (a) GNI (rather than GDP)?
 - (b) per capita?
 - (c) PPP?
3. In Figure 2, what does the difference between the mean years of schooling and schooling indicate about the progress of development in Mozambique?

Test your knowledge...

1. State one other indicator of development, other than those included in the living standards).
2. Identify two causes of Mozambique's high economic growth.

Extended-response question

1. Discuss the importance of having abundant natural resources for economic growth in a country such as Mozambique.

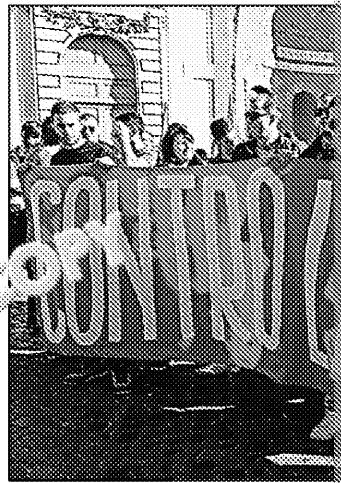
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Youth Unemployment in Italy

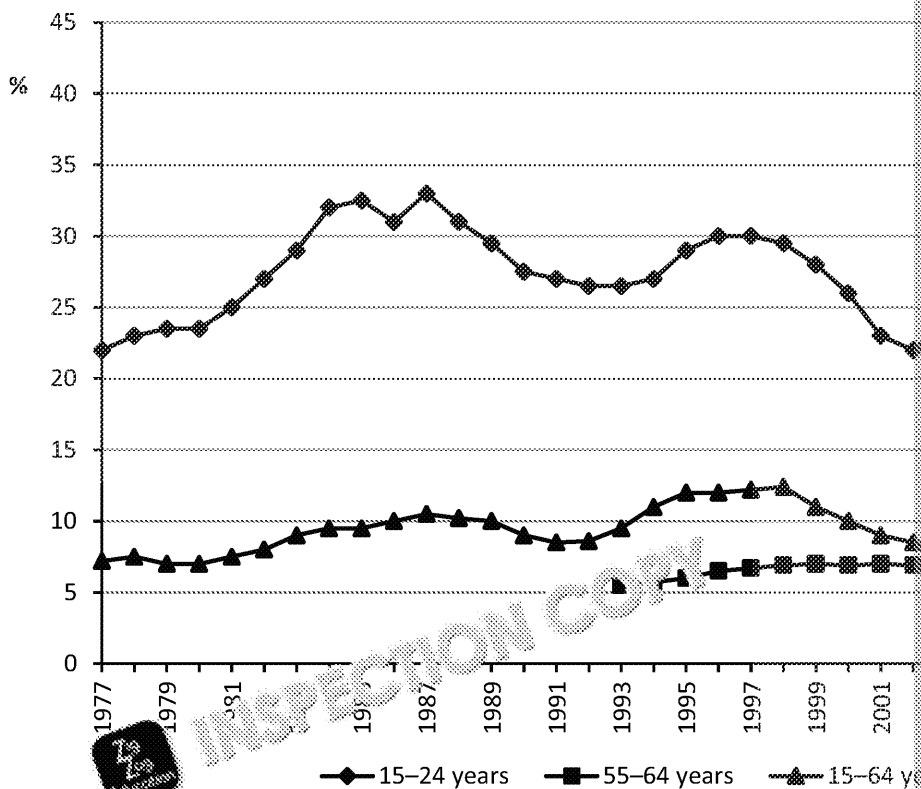
This case study requires knowledge of the topic 'Unemployment'

The economic crisis of 2008 had many short-term consequences – banks needed bailing out, monetary and fiscal policy needed loosening, firms needed to lay off workers. Although the general consensus is that the worst of the crash seems to be over, some problems look set to persist in the long term. For some Eurozone countries, few issues are more worrying than that of youth unemployment.



Italy's overall unemployment rate hit a high of 12.4% in 2003. This alone is cause for concern, compared with rates of 7.7% and 5.3% for the UK and Germany respectively (both of which fell continuously through to 2003). When Italy's unemployment rate is broken down by age, the results

Figure 1: Unemployment Rates



Source: 'No Country for Young People?' Youth labour

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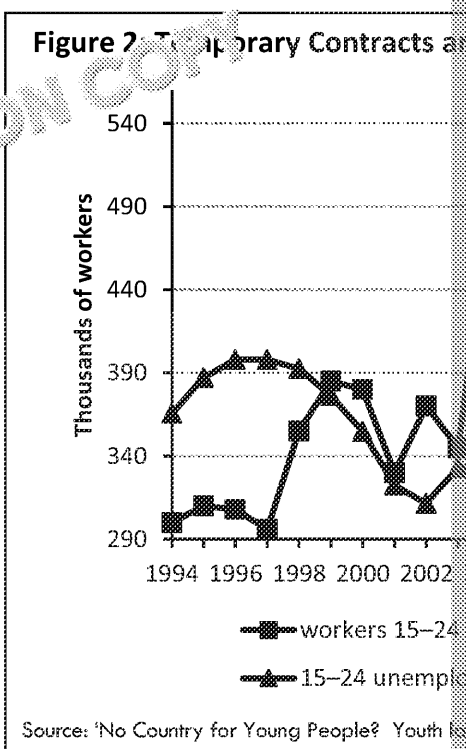


Research conducted by the Centre for Economic Policy Research (CEPR) suggests explanations for the rise in youth unemployment rate:

1. The system protects existing, older workers, with young people typically on temporary (fixed-term) contracts (see Figure 2).
2. More young people chose to go into higher education – this decreases the young (since those in education don't count as part of the labour force) and increases the unemployment rate, *ceteris paribus*.
3. Although there have been difficulties for low-skilled NEETs, (Not in Education or Training), there have also been difficulties for graduates. University-educated young people study to degree level, but the supply of available graduate jobs has not kept up. In economic terms, this is referred to as structural unemployment.

The fear is that if young people are unemployed for too long, they will struggle to adjust to the world of work throughout their lifetime ('lost generation'). Furthermore, there is some evidence of a 'brain drain', as young people emigrate to seek more promising job opportunities.

It is clear that the Italian government will need to find a far-reaching strategy to combat the youth unemployment problem – before it gets any worse.



Use the data

Using data from Figure 1:

1. Compare the trend in unemployment for the 55–64 age group with the 15–24 age group.

Using data from Figure 2:

2. (a) By how much did the number of temporary contracts change between 1994 and 2007?
(b) Describe the trend in the unemployment rate between 1994 and 2007.
3. Describe a potential policy that could help the country to fix the youth unemployment problem, and some limitations or disadvantages of your policy.

Test your knowledge...

1. One of the reasons for the rise in youth unemployment was that more young people went into higher education, rather than participating in the labour force. Explain how this leads to an increase in unemployment using the formula.
2. State two types of unemployment not mentioned in the text.

Extended-response question

1. Discuss the negative effects of unemployment on society and the economy. You should also consider cases where unemployment may not be a concern in the short term.

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UK unemployment – successes and

This case study requires knowledge of the topic 'Employment/Unemployment'

Unemployment refers to the situation in which an individual is actively seeking employment, but is unable to find work. Unemployment can be one of the most persistent and damaging economic problems. Some Eurozone countries such as Spain and Italy have experienced eye-watering levels of youth unemployment since the financial crisis of 2008 – leading to fears of a 'lost generation'.

The UK was also buffeted by a crisis in employment following the crash, as Figures 1 and 2 show, but since 2013 the situation has improved dramatically.

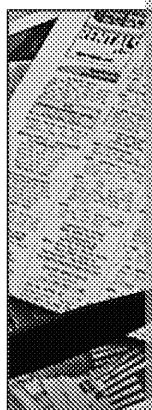


Figure 1: Measures of total unemployment (age 16+)

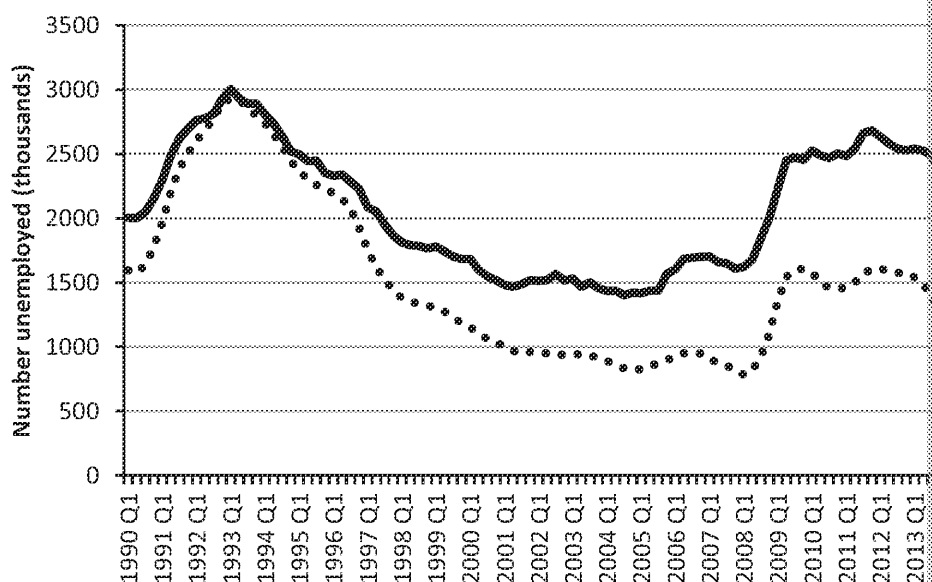
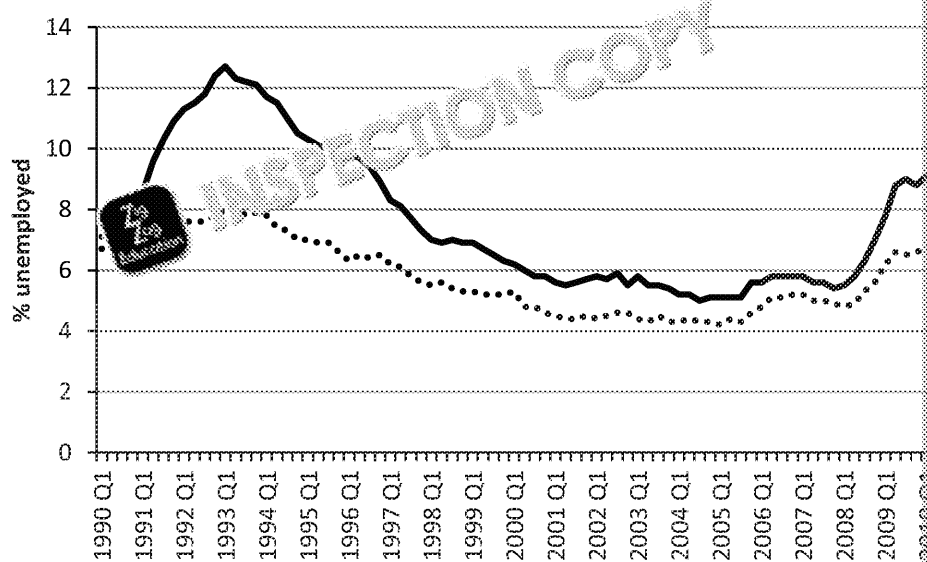


Figure 2: Unemployment rates (male/female)



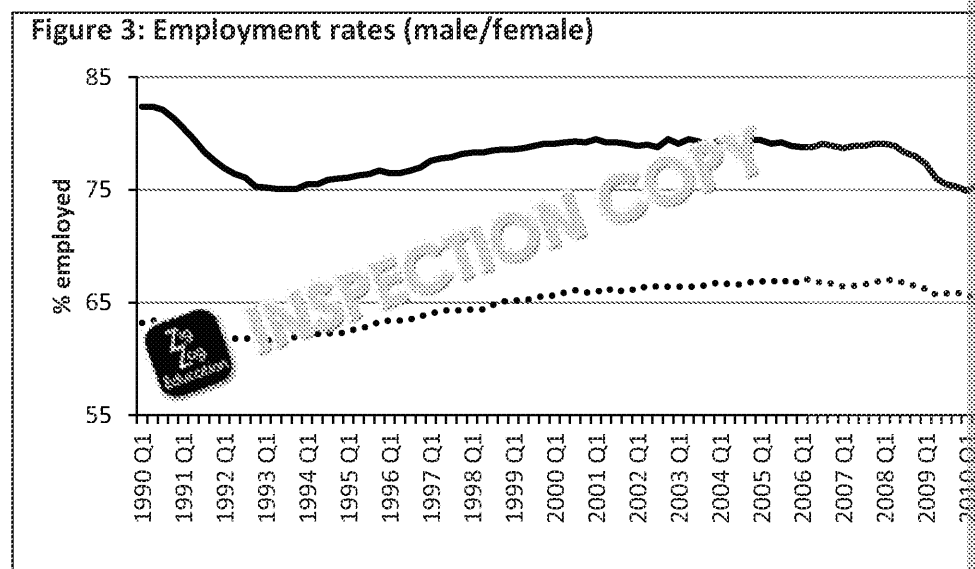
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The UK is not out of the water just yet, however. There have been heavy job losses in the manufacturing industry, as competition from abroad proved too fierce to make the industry viable. The government could try to prop up the industry via increased subsidies, but unless the underlying structural issues are tackled, it is feared that this would amount to signing a 'blank cheque'.

There have also been concerns that the unemployment figures only appear to show the emergence of 'zero-hours contracts' – but hard evidence on this is difficult to come by.



Another perplexing pattern has been observed since the crisis: even though employment has risen and unemployment figures have fallen, wage growth has been stagnant (and wages tend to rise when unemployment is low).

One reason might be that inflation has been very low – if inflation were high, it would be demanding nominal wage increases. Another is that more people are having to work longer hours, as their employers cannot afford to have them work longer. A more likely reason for the sluggish wage growth is that the proliferation of cheap capital goods has reduced the need for labour (e.g. the introduction of self-service machines at McDonald's). Whether the situation remains to be seen.

Use the data

- Looking at Figure 1, explain why the Claimant Count measure of unemployment is different from the Labour Force Survey measure.
- Suppose that in 2000 Q1 (quarter 1) the population of the UK was 60 million and consisted of 55% of the total population, use Figure 3 to estimate the number of people employed in the economy.
- Look at Figure 3. What can you tell about the difference between male and female employment rates? Can you think of any reasons behind the differences shown in the graph?

Test your knowledge...

- Define the term 'economically active'.
- Why is 'full employment' a macroeconomic policy objective?
- Figure 1 shows a rise in unemployment numbers during the financial crisis of 2008. What type of unemployment is likely to have taken effect during this time?

Extended-response question

- Discuss the consequences of unemployment for the economy and society.

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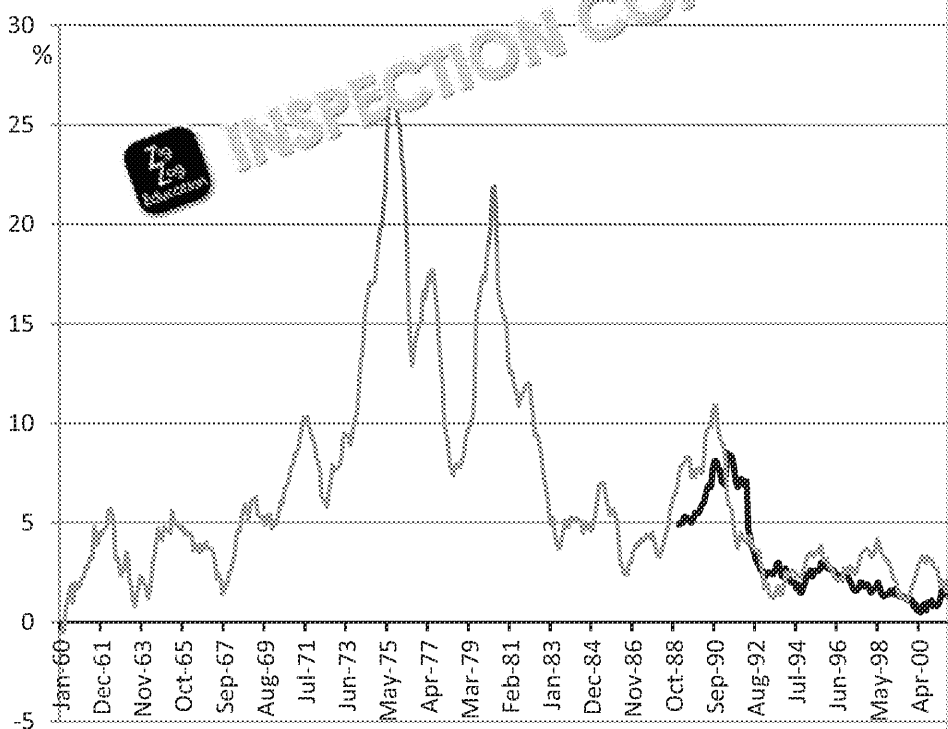


UK inflation in the 1970s

This case study requires knowledge of the topic 'Inflation'

Inflation refers to the sustained increase in 'general' prices in an economy – changes in the Consumer Price Index (CPI). Inflation figures in the UK tend to be reported in sections of newspapers nowadays. Inflation has been very modest over the last few decades (close to the Bank of England target of 2%) although the near-zero rate in 2015. However, in the 1970s (and to a lesser extent the 1980s) inflation was a serious problem.

Figure 1: UK inflation 1960–2013



Inflation data is calculated each month as the percentage change in prices from the same month in the previous year.

High inflation is often associated with high economic growth – inflation and growth are often referred to as 'the twin evils'. In the 1970s, however, economists in the UK and US were faced with a period of high inflation and low economic growth. This came to be known as 'stagflation'.

One of the causes of this was a succession of oil price 'shocks' in the world economy – i.e. unexpected increases in the price of oil. This caused a sharp increase in the price of oil, which was a key cost of production for the manufacturing industry, as well as an increase in the cost of living (as the use of cars had become highly popular). These are examples of cost-push and demand-pull inflation, respectively.



It has also been observed that the government's policy response worsened the problem. Interest rates were kept too low. Low interest rates lead to inflation if economic activity is kept at a high possible level. Unfortunately, the government had inaccurate data on the state of the economy and thought it had a greater capacity to grow than it actually did (they overestimated the growth gap). In retrospect, it would have made more sense to increase interest rates to reduce demand.

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Following this episode, policymakers tended to become more 'hawkish' – with emphasis on controlling inflation, possibly at the expense of economic growth. In the period entered a period of relatively stable inflation in the UK, policymakers have been more concerned with promoting economic growth than worrying about high inflation.

Use the data

- Using Figure 1, what was the highest inflation rate experienced by the UK in the 1970s?
- (a) In percentage points, what was the approximate change in the rate of inflation from July 1982?
(b) What term describes this kind of change?
- Describe the trend in the inflation rate during the 1970s.

Test your knowledge

- State one reason why inflation increased in the 1970s.
- Explain the difference between deflation and disinflation.
- What is the difference between the Consumer Price Index (CPI) and the Retail Price Index (RPI)?
- Distinguish between cost-push inflation and demand-pull inflation.

Extended-response question

- Discuss the costs of inflation for an economy.

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Canada's Economic Policies

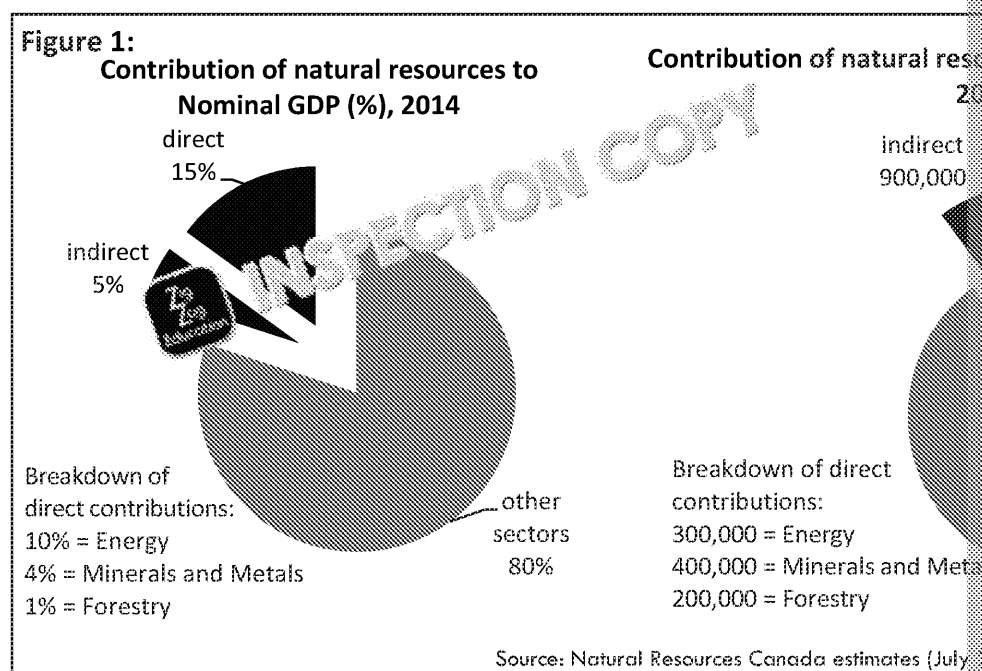
This case study requires knowledge of the topic 'Fiscal Policy'

One of the basic questions in macroeconomics is: how can a government be financed? For Justin Trudeau, the Canadian Prime Minister elected in 2015, the answer is infrastructure spending, funded by a temporary budget deficit.

Quick facts	Canada
Population:	35 million
Area:	9,984,670 km ² (second largest in the world)
GDP per capita (nominal):	\$50,000
Government debt (% GDP), 2014:	86.5

The rationale for infrastructure spending is that it increases aggregate demand in the short term (e.g. directly through an increase in government expenditure; indirectly through an increase in consumption from workers involved in the infrastructure project) and it also boosts aggregate supply in the long term (as these investments boost the economy's productive capacity). Trudeau hopes to benefit from low interest rates to fund a \$60 billion (Canadian dollars) spending plan over 10 years channelled into areas including public transport, green projects and affordable housing ('social infrastructure'). Around 30–35% of this spending is expected to return to the government via higher tax revenues, as the spending induces more economic activity.

Despite a persistent budget deficit, all three main political parties (Liberal, Conservative, New Democratic) support higher infrastructure spending, perhaps due to evidence that infrastructure depreciation have been mounting over time (leading to a so-called 'infrastructure gap'). Nevertheless, there are concerns over Canada's economic future due to the country's reliance on such a low. Canada relies heavily on energy exports, as Figure 1 shows:

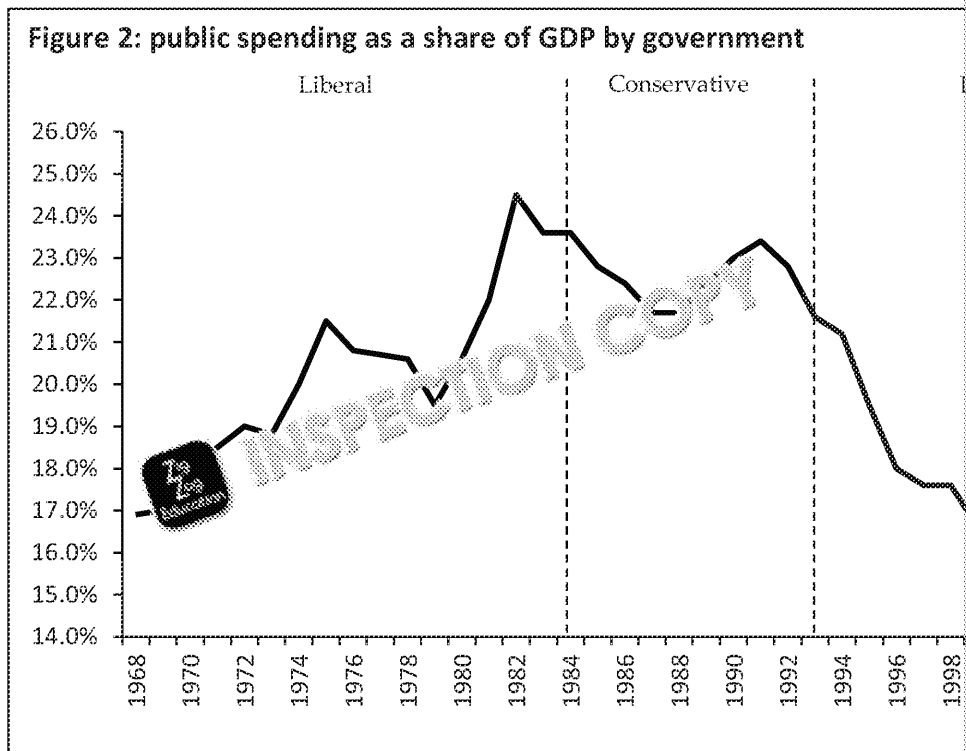


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Figure 2 shows the pattern of government spending as a share of total GDP where different governments (Liberal or Conservative) had control. As of 1993, the government changed back to Liberal.



It's interesting to note that the idea that left-of-centre governments (liberal) increase government spending and right-of-centre governments (conservative) decrease government spending to hold. This same pattern can also be observed in the US. One explanation for this is the force government's hands: during the financial crisis of 2008, for example, Prime Minister Stephen Harper was forced to increase spending, possibly against his own policy. The graph after 2008 could also be explained by the effects of the recession. The graph shows public spending as a percentage of GDP, not total public spending.

Use the data

Using the data in the article (quick facts, Figure 1, Figure 2):

1. Calculate the (nominal) size of Canada's government debt in \$s.
2. Calculate (in \$s) the contribution of energy to Canada's nominal GDP.
3. Calculate the percentage of Canadians that are in employment.
4. Estimate the proportion of GDP consisting of government spending in 2000.

Test your knowledge

1. Look at the trend in Figure 2. What would you expect to happen to the infrastructure spending plan described in the passage goes ahead?
2. Based on the information in the passage, show the effect of an increase in infrastructure spending on the AD/AS diagram.
3. Is Trudeau's fiscal policy suggestion a form of current or capital government spending?

Extended-response question

1. Discuss the possible effects of a large infrastructure spending project on the short term and the long term.

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Greece's debt problem

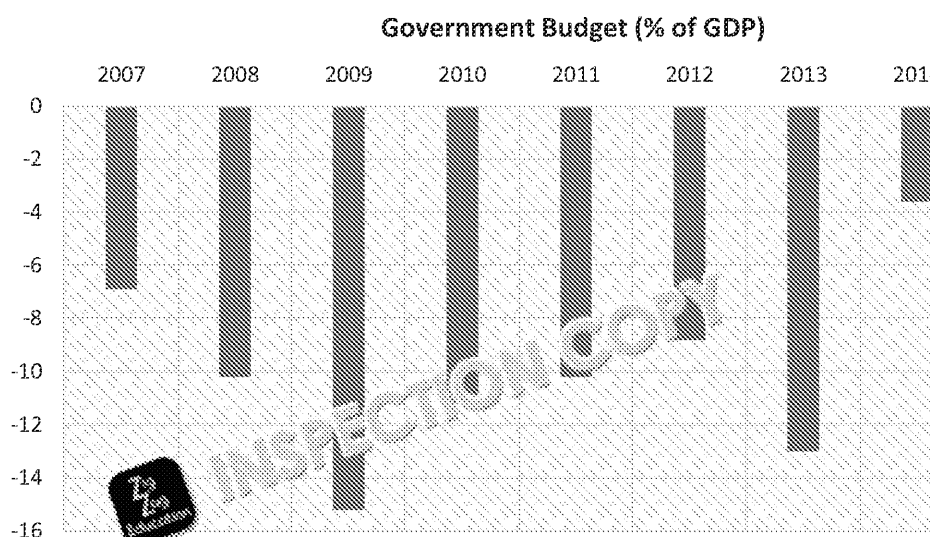
This case study requires knowledge of the topic 'Fiscal Policy'

Greece's sovereign debt crisis came to the forefront of European political and economic life in the aftermath of 2008's *Great Recession* and financial crisis. Its cause is rooted in

Members of the eurozone were required to sign the Maastricht Treaty, in which they agreed to limit budget deficits and sovereign debt levels in order to achieve a harmonious monetary union. However, it incentivised Greece, and other southern European economies, to adopt lax accounting practices and the use of complex financial instruments in order to circumvent the rules. Underlying budget and sovereign debt problems. Moreover, adopting the euro allowed Greece to finance private and government spending on more favourable terms than its own country's currency. Eurozone countries also benefited from reduced interest rates and a period of low inflation. Disparate levels of creditworthiness. Capital flooded rapidly into Greece as the country prospered in the mid-2000s as the economy boomed. Finally, at the heart of the crisis was fiscal irresponsibility. For instance, Greek ministers increased government spending and other welfare benefits markedly during this period. In fact, primary government expenditure increased by 87% while its tax receipts increased by only 31% from 2004 to 2009. This led to a continuation of imbalances seen in Greece since the 1970s.

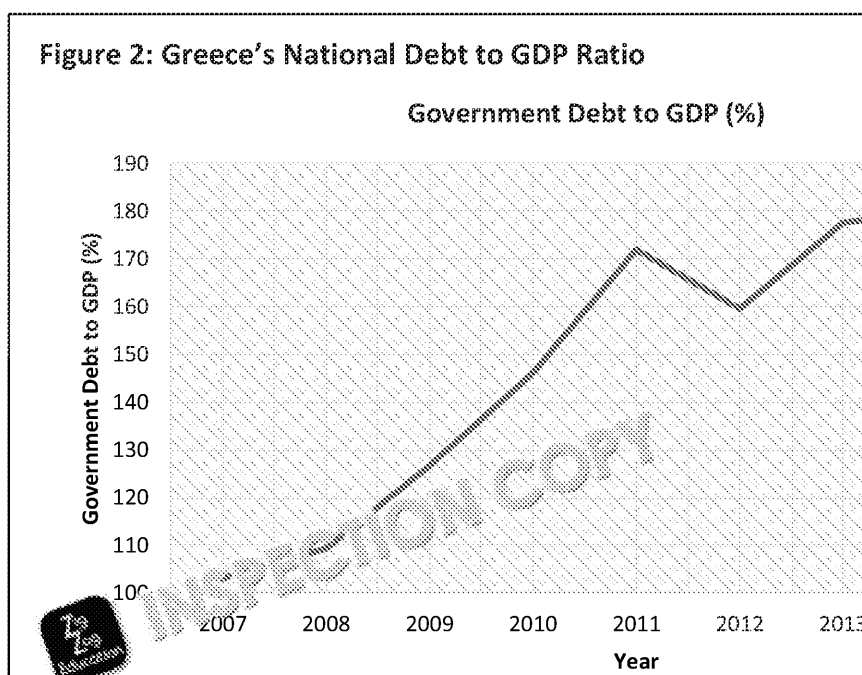
However, as the financial crisis began to take hold in 2008 it became clear that there were fundamental problems in their economy. Greece revealed that it had been hiding its true economic position. Confidence in the economy fell instantly – for instance, ratings agencies downgraded Greek bonds to 'junk' status. Greece's consistent budget deficits now appeared to be unsustainable. The government bailed out its financial institutions, effectively transferring private debt to the public sector. Capital fled from the Greek economy, reversing the trend of the mid 2000s. Unemployment increased markedly as a recession began. It became very clear that Greece's national debt was unsustainable.

Figure 1: Greece's Budget Position



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Greece's fundamental problem is that it is a member of the eurozone. The eurozone is a group of countries in which member states share a common currency and, therefore, lose independent monetary policy. The Greeks couldn't print euros in order to repay their creditors, nor could they use monetary policy to erode the *real* value of their national debt. Furthermore, the Greek government has tried to use fiscal policy to make them more internationally competitive, reduce current account deficits, and improve GDP growth.

Instead, Greece had to use the limited fiscal policy tools it had available to try to influence the national debt. It increased taxation and cut government spending to improve its budget position – this is also referred to as 'austerity'. However, this has not worked, and the national debt burden has increased by decreasing GDP. Perversely, Greece also required further borrowing from the International Monetary Fund in order to mitigate its government budget deficit. Some commentators have suggested that, instead of borrowing more and more, Greece should have defaulted on its loans, freeing itself from the shackles of long-term debt – but the European Central Bank would never have allowed. Greece's national debt currently stands at over 170% of GDP, and its economic future looks very bleak indeed.

Use the data

1. In which year was Greece's budget position the most concerning: 2007, 2011 or 2013?
2. What was the approximate percentage increase in the national debt as a percentage of GDP between 2007 and 2013?
3. Research why government debt to GDP fell in 2012.

Test your knowledge

1. 'It is suggested that Greece's tax policies have had the opposite effect than in other countries. For example, it has disproportionately increased average rates of taxation on poor households. This has led to a pervasive problem in the Greek economy, transactions tax evasion. As a result, many businesses are jumping ship to other European economies.'
- Based on the information above, would you say that the Greek government's current policy is an example of a 'good tax'?
2. Distinguish between a government's budget deficit and the national debt.
 3. Do you think that Greece's budget deficit is cyclical or structural? Why?

Extended-response question

1. Discuss what policies governments can use to correct budget deficits.

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Monetary and fiscal policy in the Great Depression

This case study requires knowledge of the topics 'Fiscal Policy' and 'Monetary Policy'.

The Financial Crisis of 2008 was a global economic disaster, but it is still dwarfed by the Great Depression of 1929. The Great Depression was particularly damaging for the UK, which also had its fair share of economic misery. The episode provides a unique opportunity to study the effects of demand-side policies in an economic downturn. Figure 1 shows real GDP in the UK and US during the Depression:

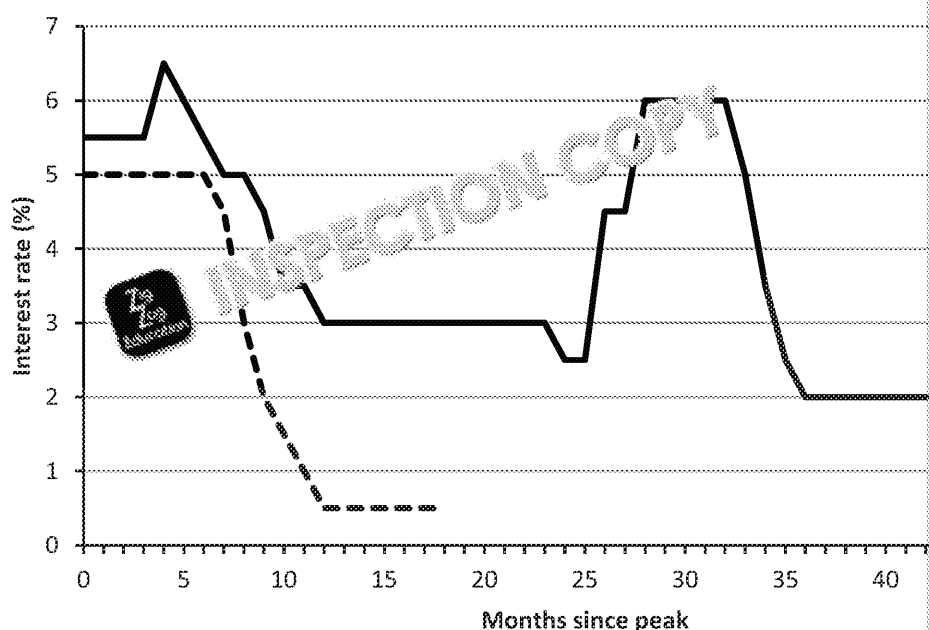
Figure 1: UK and US real GDP 1929–1940



Source: Middleton, (2010), 'British monetary and fiscal policy in the 1930s'.

So what was the UK's monetary policy response to the Depression? Figure 2 shows the Bank of England's monetary policy: the interest rate.

Figure 2: Bank of England interest rates in the Great Depression (1929) and the 2008–09 financial crisis



Source: Almunia et al. (2009), 'From Great Depression to Great Credit Crisis'.

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It is interesting to note that interest rates were cut much more rapidly during the 2008 crisis than in the Great Depression (this is *expansionary* monetary policy – lowering interest rates should boost aggregate demand). In fact, the central bank increased interest rates in 1931. The reason for this was that the UK was trying to protect the value of its exchange rate, which at the time was tied to the Gold Standard. Decreasing interest rates in this environment would have meant that the pound would depreciate, so more pounds would have been needed to buy the same amount of gold (which would put the UK at a disadvantage with its neighbours). When the UK finally abandoned the Gold Standard in late 1931, the interest rate could safely be cut. This led to a depreciation of the pound, boosting the UK's competitiveness and increasing aggregate demand.



In terms of *monetary* policy, the government sought to correct the budget deficit by cutting unemployment benefits and raising taxes. These are *contractionary* policies that slow down the economy. Nevertheless, the economy did recover quite quickly. One theory is that because these policies were accepted at the time as 'the right thing to do', they were able to restore confidence in the markets. Another possibility is that the increase in government spending was enough to counteract the contractionary effects of fiscal policy. There can be no direct comparison drawn between the UK's response here and the response to the Financial Crisis.

However, economists should be cautious of drawing too many conclusions from the experience of the Great Depression. The complexity of the situation and the effect of any one policy on economic growth is almost impossible to measure. The economy was structured quite differently back then. For example, the budget deficit in 1931 was small relative to the budget deficit seen in 2007. Failing to learn from history and drawing false analogies could be just as bad.

Use the data

1. In which year did the US economy recover to its 1929 levels of GDP?
2. What is the (technical) definition of a recession? Was the UK in a recession during the Financial Crisis?
3. From Figure 2, how long did it take for the UK interest rate to fall from 5% to 1% during the Financial Crisis?

Test your knowledge...

1. Approximately how much larger (in percentage terms) was the UK economy in 2008 than in 1929?
2. (a) State the effect of a fall in the interest rate on AD using a Keynesian AD model.
(b) Explain two reasons why the fall in interest rates has this effect on AD.

Extended-response question

1. Evaluate the effectiveness of using demand-side policies to stimulate economic growth in the UK during the Financial Crisis.

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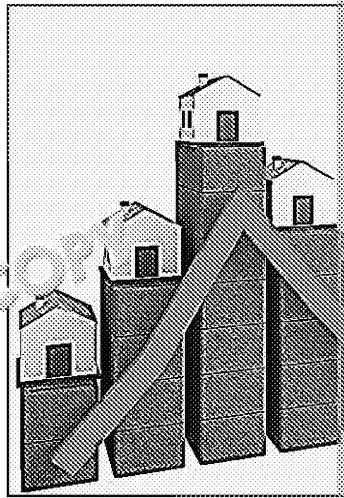


Ireland's Housing Market Bubble

This case study requires knowledge of the topics 'Fiscal Policy' and 'Financial Markets'.

One of the casualties of the 2008 financial crisis was Ireland's economy. Ireland has subsequently been dubbed one of the 'PIIGS' – economies which proved particularly unstable after the crisis, although compared to the rest of the countries (Portugal, Italy, Spain, Greece), it seems to have been recovering very strongly as of 2015.

As well as 'irrational exuberance' in financial markets, much of the blame for Ireland's economic collapse can be traced back to different types of macroeconomic mismanagement.



Irrational exuberance:

This is a term originating from Alan Greenspan, ex-Chairman of the Federal Reserve (the central bank of the USA). It is used to describe the risky behaviour in the financial sector in the run-up to the crash.

Prior to the crash, the world economy offered rich opportunities for Irish banks to borrow at low rates (particularly following the introduction of the euro). There was very heavy investment in property because this sector had never crashed before. Confidence would prove to be misplaced. The range of assets, seems to have been

In terms of the fiscal policy, the government adopted a 'pro-cyclical' approach. It increased their spending in the boom period, as well as cutting taxes to attract investment (a proportion of these taxes were linked to the property sector). This left the economy vulnerable to a bursting of the property sector bubble, in spite of warnings from the OECD. Ultimately, this meant that the government had next to no breathing space in its fiscal policy when the crisis hit.

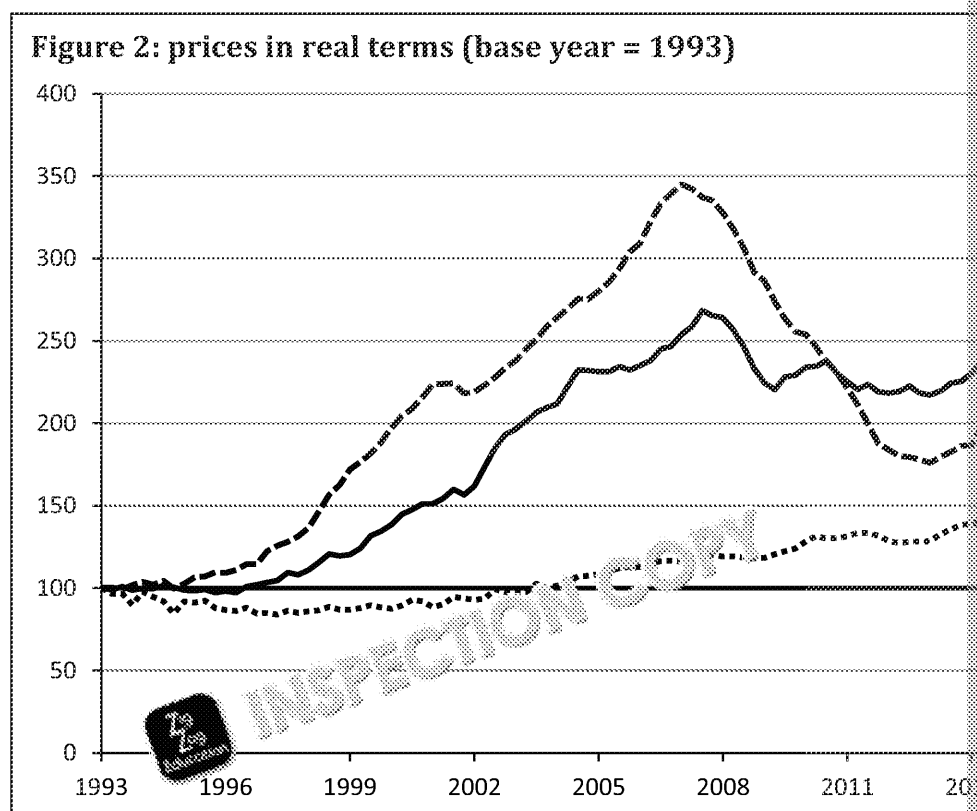
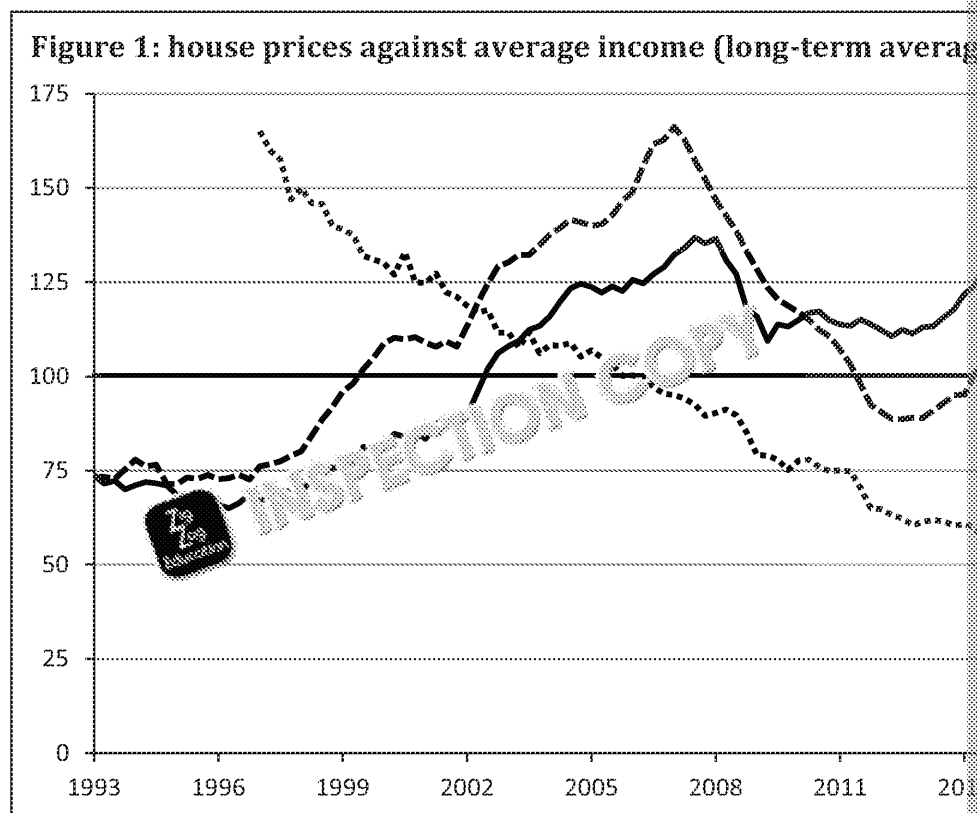
Furthermore, regulators of the banking industry seem to have failed to pick up on warning signs of an impending crash. This is particularly noteworthy since Ireland was not nearly as complex or opaque as some other advanced economies (where extremely complicated financial products or 'derivatives' was flourishing). The regulatory systems also seem to have failed in identifying a very risky and unstable financial

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Figures 1 and 2 show two historical measures of the housing market in Ireland. It is very evident in both.



Note: you can compare the performance of the housing markets in other countries using <http://www.economist.com/blogs/dailychart/2011/11/global-house-prices>

Fortunately, it seems that Ireland's economy is on its feet again. Hopefully, experience will prevent such disastrous financial crises from occurring again.

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Use the data

- Look at Figure 1. Suppose the long-term average house price in Ireland is also the long-term average income. If average income is €30,000, what would be the (average) price of a house in Ireland?
 - Q4 1980
 - Q1 2007
- Look at Figure 2. In Q1 2007, compared to Ireland, were real house prices in China higher, lower or the same?
 - unable to be compared?
- Looking at both graphs, can you think of a reason why China's house prices in Q1 2007 had fallen so consistently?

Test your knowledge...

- Looking at Figure 2, describe the trend in real house prices in Ireland over the period 1980–2007.
 - How many times greater were real house prices in Ireland in Q1 2007 than Q1 1980?
- What is meant by a 'budget deficit'?
 - Explain whether Ireland's fiscal policy measures described in the extract resulted in a budget surplus or a budget deficit in the short term.
- Using a Laffer curve, describe the relationship between the tax rate and tax revenue.

Extended-response question

- One of the key features of Ireland's economic boom (and subsequent bust) was deregulation of financial markets. Using an AD/AS diagram, discuss the effectiveness of deregulation as a policy response to the economic boom. (Note: your answer does not need to include any knowledge of different types of shocks.)

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Supply-side policies – privatisation

This case study requires knowledge of the topic 'Supply-side policies'

Supply-side policies, such as improving health and education, aim to increase the productive capacity of the economy. This allows for greater long-term economic growth. One of the larger (and more controversial) supply-side projects in the UK was the privatisation of nationalised industries in the 1980s and 90s.

The idea behind privatisation is that it increases competition in the market, leading to greater efficiency, as private firms (not motivated by profit) run themselves more efficiently than the government can. In the UK, examples of industries that have been privatised include the steel, telecoms, electricity and gas industries (and more recently

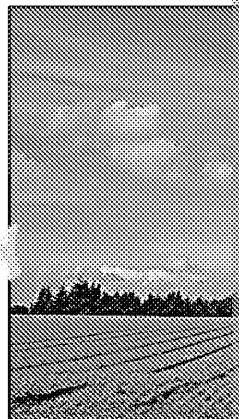


Figure 1 charts labour productivity in the electricity sector before and after privatisation, alongside a UK-wide industry index:



Figure 1 demonstrates that privatisation had a positive effect on labour productivity in the electricity sector. Some argue that this is due to reductions in employment following privatisation (the argument that privatisation automatically increases labour productivity, *ceteris paribus*). Supporters of privatisation argue that the loss of employment in specific industries is offset by gains in employment in other sectors.

There was fierce opposition to privatisation at the time, causing deep divisions within the Labour Party. Critics argue that privatisation has failed, because market power has become concentrated in a few hands. In the electricity sector in particular, where a small number of firms dominate the market, this has led to concerns about the quality of service and the ability to regulate prices.

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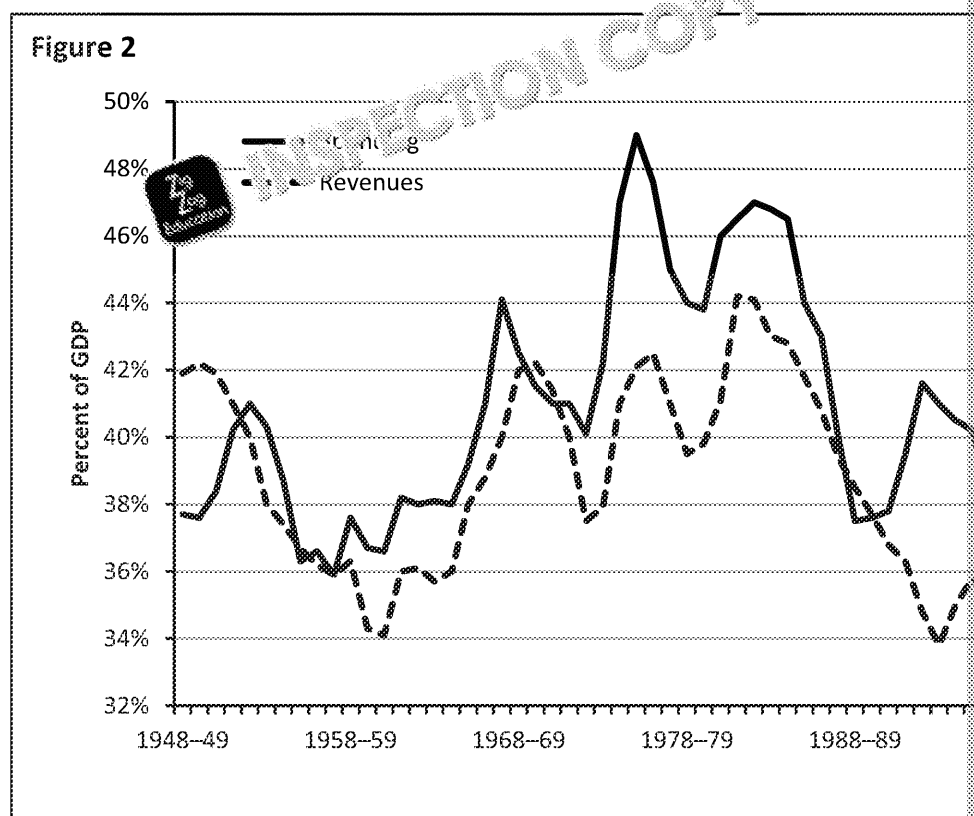
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Studying the effects of privatisation is difficult, because it's hard to tell whether downturns in industries would have happened anyway if there had been no privatisation was the cause of these changes! Most economists agree, though, that privatisation are maximised when there is a genuine competition in the industry.

The next question on this issue will be how far the NHS will move towards depending on whether the current system can continue to support an ageing population and whether supporters of privatisation can persuade the public that it won't be profiting from people's ill health.

Figure 2 shows the pattern of government spending and tax revenues over the last 40 years.



Use the data

1. How much higher was the productivity of labour in the electricity sector in 1990 than in 1980 when privatisation was first introduced?
2. Look at the pattern of government spending during the 1980s in Figure 2. Is this consistent with the theory of supply-side policies?
3. Look at Figure 2. What can you infer about the UK's tax rates during the 1970s?

Test yourself to prepare...

1. From this passage, identify one potential benefit and one potential cost of privatisation.
2. Show the effect of a successful supply-side policy on an AD/AS diagram.

Extended-response question

1. 'Governments should focus more on supply-side policies than demand-side policies because supply-side policies can increase long-term economic growth'. Discuss this statement.

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Productivity – the Key to Long-run

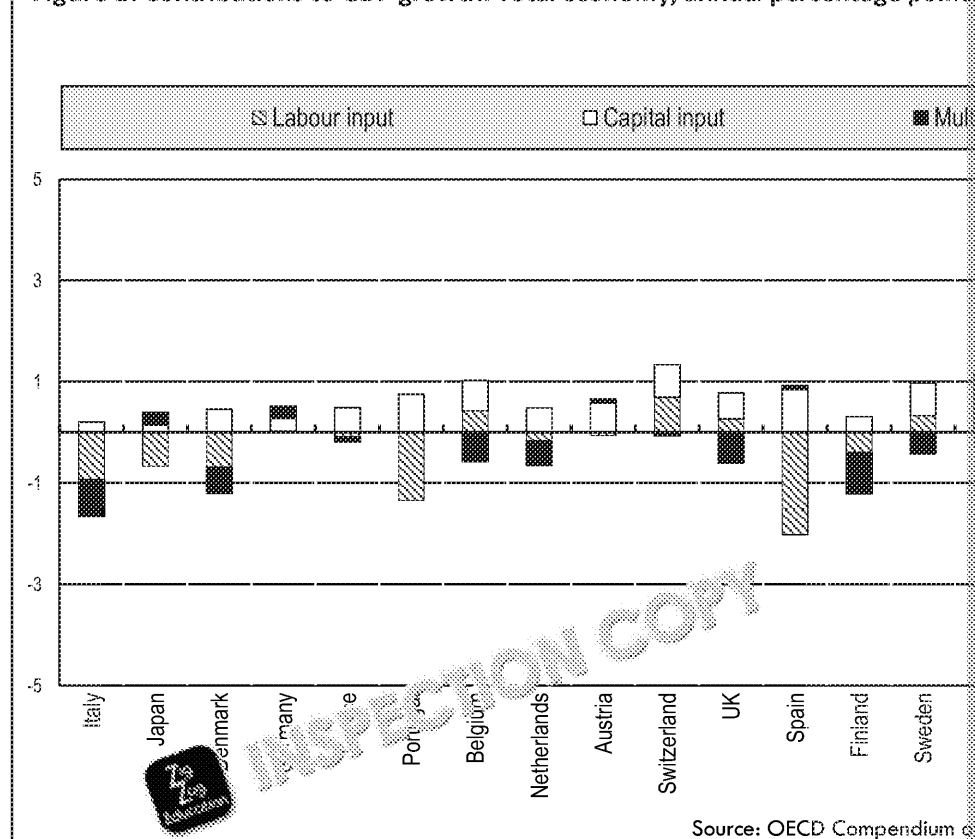
This case study requires knowledge of the topic 'Supply-side'

Most economists agree that in order to sustain economic growth in the long run, the supply-side of the economy must grow. For example, a government could try to increase the productive capacity of an economy by relaxing restrictions on the creation of new businesses, or investing in large infrastructure projects. Businesses have financial incentives to improve their own methods of working, perhaps by investing in capital or funding research into new technology – this should also contribute to the aggregate supply of an economy over time.



Considerable effort has gone into documenting the causes of economic growth. Figure 1 shows how GDP growth can be decomposed into four categories for a range of OECD countries. The OECD (Organisation for Economic Co-operation and Development) is a group consisting of predominantly developed countries.

Figure 1: Contributions to GDP growth: Total economy, annual percentage points



Source: OECD Compendium

In Figure 1, labour input refers to the quantity of labour used in the economy (including IT) and non-IT) also refers to the quantity used. Multifactor productivity refers to the resources being used.

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Figure 1 looks quite different when repeated for the period 2001–2007 (pre-2008) when the world economy was performing well, almost all countries show growth from all three sources (labour input, capital input and multifactor productivity).

Historically, industrialisation is seen as a major catalyst for productivity growth. The Industrial Revolution is considered one of the primary reasons for the economic ascent of the West (see Case Study 1 in Case Study 3). This is why some models of economic development (such as the East Asian model) place great value on having a strong, urban economic hub in an economy.

Increasing productivity nowadays may be achieved by improving human capital, developing new technology, privatising state-owned industries or benefiting from economies of scale. The idea of the division of labour (originally from Adam Smith).

Some economists are concerned that overall productivity growth has been slowing down in recent years, despite strong growth in the manufacturing sector (in the UK, it's estimated that the productivity of transport equipment such as cars and planes increased by 10% in the last 10 years). So important for long-run growth, it should certainly be monitored in the coming years.

Use the data

- Using the data in Figure 1:
 - Which country gained most from increased capital input?
 - Which country suffered the worst loss in multifactor productivity?
 - Which of the three factors has contributed most to GDP growth on average?
 - By roughly how much did Spain's GDP decrease as a result of decreased labour input?
 - What was Ireland's annual GDP growth rate, according to these figures?
- Can you think of a link between Spain's loss of GDP due to a decrease in labour input and its macroeconomic objectives?

Test your knowledge...

- Show the likely effect of a large decrease in education spending on a classical growth model.
- Aside from productivity and education, state two factors that influence long-run growth.

Extended-response question

- Discuss the costs and benefits of a government policy to increase productivity by investing in better education.

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Policy conflicts – inflation and unemployment

This case study requires knowledge of the topic 'Policy Conflicts'. Note that a full Phillips curve is not required until A2.

Economies rarely seem to perform exactly the way we want them to. If a government tries to correct one problem, they often end up causing another in the process – a 'trade-off'. One of the classic economic trade-offs that has been studied extensively is the conflict between inflation and unemployment. William Phillips, a New-Zealand-born economist, proposed the short-run relationship between inflation and unemployment in the 1950s that came to be known as the Phillips curve.

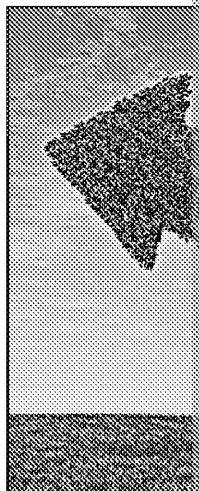


Figure 1 plots UK inflation and unemployment from 1971–2000 (each dot represents a year):

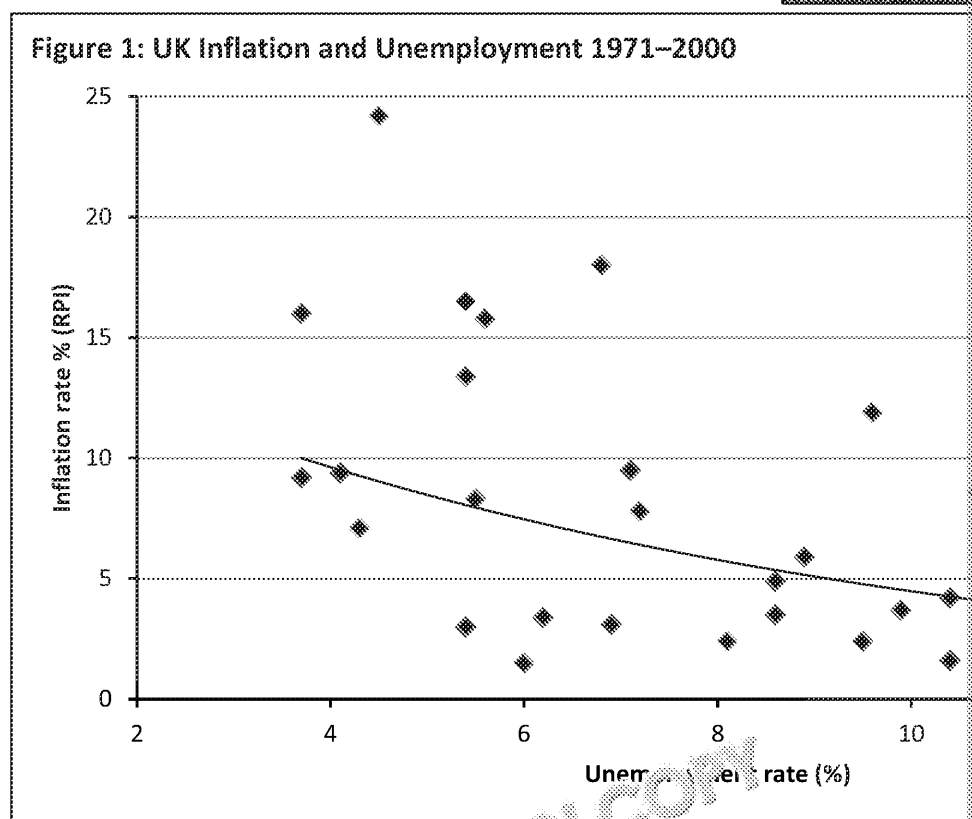


Figure 1 seems to show a clear pattern of the trade-off, although as with all data it is not necessarily the theoretical Phillips Curve. Inflation is measured using the RPI, which doesn't stretch back that far. Data is available for after 2000, but the relationship is particularly weak due to the disruption caused by the financial crisis).

How do we explain this trend line? Take the case of low unemployment and low inflation. In this scenario almost everyone in the labour force is employed, so firms have to pay more for workers. This pushes up inflation (cost-push). Furthermore, when wages increase, pushing up demand for goods and services. This pushes up the price level. The opposite happens when unemployment is high and inflation is low.

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However, it has been argued (and observed in the data) that the Phillips Curve has shifted down over time. In the UK, after the financial crisis we have seen low unemployment (see Figure 2). This could be explained by the success of supply-side policies that expand the productive capacity of the economy (limiting inflation). Tight monetary targeting policy (which only came into force in the 1990s) may be another cause of the relationship. This is good news for governments – as long as the trend of low inflation continues, and we don't return to the 'stagflation' seen in the UK (high inflation and high unemployment).



Use the data

1. Look at the trend line in Figure 1. Suppose unemployment was at 9%. If unemployment fell by 1 percentage points, what would be the expected change in inflation?
2. Which of these best describes the relationship between inflation and unemployment? (a) positive relationship, (b) negative relationship or (c) no relationship?

Test your knowledge...

1. Explain what is meant by inflation targeting.
2. Explain why high unemployment may lead to low inflation.
3. Explain whether possible policy conflicts.

Extended-response question

1. 'Governments should prioritise low unemployment over low inflation.' Discuss this statement.

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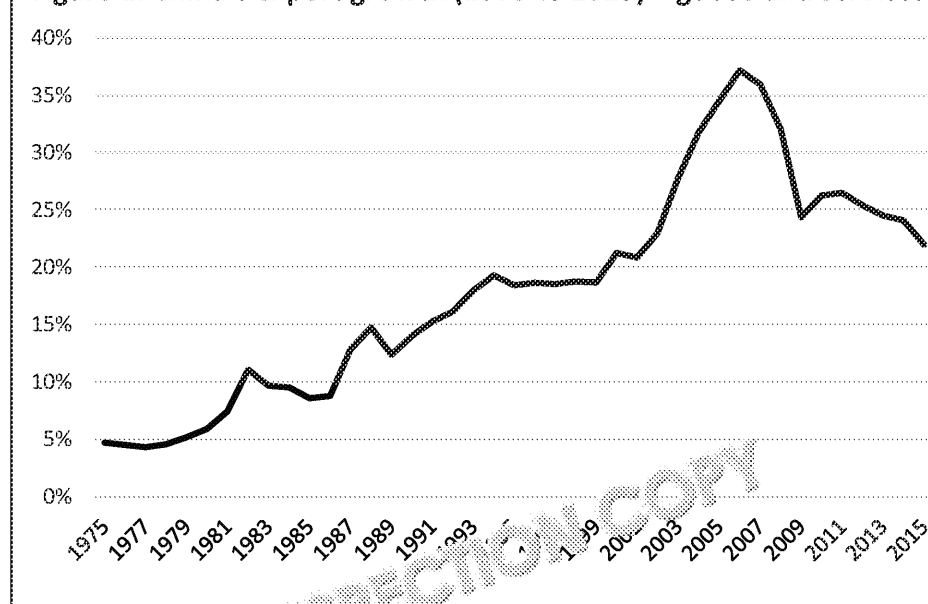
China and Exchange Rate Management

This case study requires knowledge of the topics 'International Trade'

China's spectacular rise to becoming the world's second largest economic power is a notable example of the impact of international trade on achieving industrial growth. When Deng Xiaoping, the then leader of the People's Republic of China, opened the economy in 1978, few people could have predicted the rapid shift from an agricultural to an industrial powerhouse of the world.

China's success is rooted primarily in its *comparative advantage* in manufacturing. This means that one country can produce a certain product relatively more efficiently than another with a smaller opportunity cost. For a country of some 1.36 billion inhabitants, it is a labour-abundant economy. In fact, it is the most labour-abundant in the world. It is ripe for specialisation in production that uses this factor of production intensively. In particular, electronics, occurs in China not only because labour is abundant but also because it has gained expertise through specialisation. The Apple iPad's world price is \$33, of which only \$8 accrues to China. Apple could easily shift production to other countries. Yet, industrial clusters in China can offer over three decades of experience in manufacturing, thorough knowledge of the production process, sophisticated logistics networks, design and engineering expertise and the ability to upgrade technology – this gives China a comparative advantage even if labour is a falling factor of production in industrial manufacturing.

Figure 1: China's export growth (1975 to 2015) – goods and services as a percentage of GDP



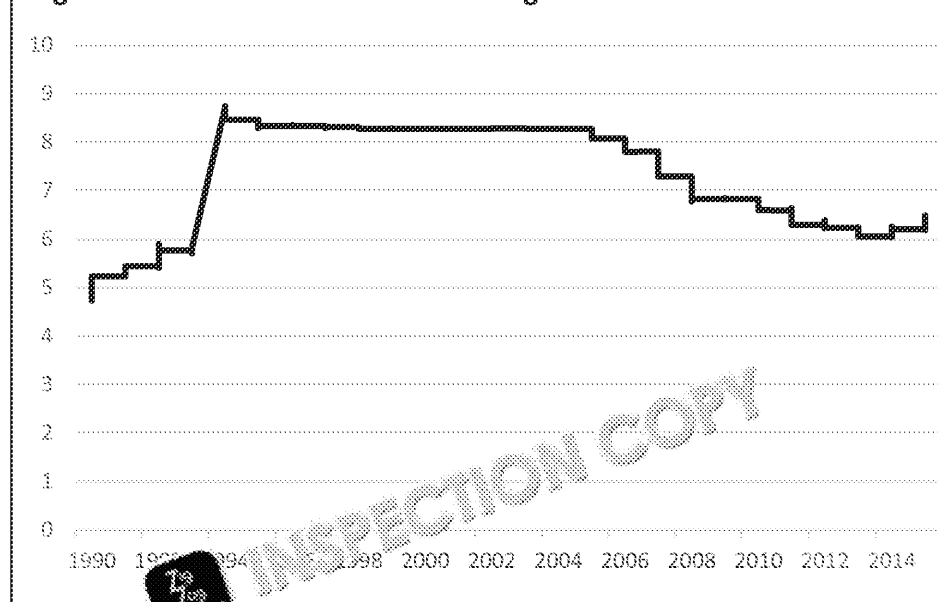
Yet, China's growth in exports since 1975 hasn't occurred because of a competitive manufacturing sector alone. The Chinese government first pegged the yuan (Chinese dollar) to the US dollar in 1995, and then to a basket of currencies – that is, it has been operating a *managed float* regime. It can be seen in Figure 2 that the Chinese yuan was almost flat between 1995 and 2005. The Chinese government allowed its currency to float within limits.

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Figure 2: USD to CNY nominal exchange rate



Exchange rates are the price of currency in terms of another, and, therefore, relative prices of goods and services across international borders. It is said to be competitive on international markets because it artificially kept its currency. Now the yuan is floating on international foreign exchange markets, the Chinese government allowed it to make the major adjustments in value that the international community appreciated by about 20% between 2005 and 2008, but critics speculate that it will fall a further 20% before it reaches the free-market, floating value. International Chinese government of currency manipulation that unfairly benefits its products on international markets. Western consumers, however, have likely benefited from cheap Chinese exports.

For the Chinese, though, currency stabilisation is essential for long-term development. Production is export-orientated. China's domestic markets might not yet be able to absorb the output of Chinese producers, and so targeting supply at foreign economies to compete on the international stage might just be the best strategy to stimulate aggregate demand. Moreover, outward-orientated growth has allowed China to (partially) expose itself to international competition – its comparative advantage in production has allowed it to do so. It's clear from Figure 1 that operating as an export-led economy has boosted exports, and, therefore, GDP growth significantly.

However, fixed exchange rate regimes aren't costless. Crucially, although they have helped exporters, imported products are naturally more expensive in China. This includes natural resources and many inputs to the production process, even labour. These costs and producing costs contribute to inflation in the Chinese economy. Another central bank tool to manipulate the exchange rate by buying and selling foreign currency (supply and demand). It has, therefore, accumulated plenty of US financial reserves, giving up independence over its own monetary policy.

Use the data

1. China's GDP in 2006 was \$2,752.68 billion. What was the value of its exports?
2. Why do you think that Chinese exports fell from 2006 to 2008?
3. What is the percentage change in the USD/CNY exchange rate between 2006 and 2008? What currency movement is this?

Test your knowledge...

1. Distinguish between *absolute* and *comparative* advantage.
2. (a) Define the terms of trade.
(b) Imagine that the average price of China's exports increased by 2% while goods imported to China decreased by 1%. What would be the change in the terms of trade?
3. What is the difference between floating exchange rates and fixed exchange rates?
4. Explain the effects of currency depreciation with reference to the J-curve effect.

Extended response question

1. Chinese currency manipulation has clear costs and benefits to the domestic economy. Discuss the effects of this fixed exchange rate regime on the US economy.

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Should we be worried about the UK's current

This case study requires knowledge of the topic 'Balance of Payments'. You should be familiar with the current account component of the balance of payments and to have some understanding of how exchange rates work.

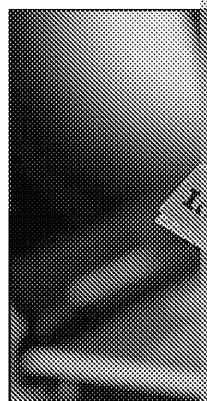
In the UK there has been much talk about the budget deficit – but less about the current account deficit. The budget deficit (which was £142 billion in 2010) seems to be falling steadily (it was £102 billion in 2014). However, the story is quite different for the current account deficit. In the period it jumped from £41 billion to around £92 billion.

Figure 1: UK Current Account Balances as a percentage of GDP

Quarter	Total	Trade	Primary
Q3 2012	-1.1	-1.7	-0.6
Q4 2012	-4.2	-2.5	-0.7
Q1 2013	-4.2	-1.7	-0.5
Q2 2013	-3.2	-1.6	0.1
Q3 2013	-4.6	-1.6	-1.0
Q4 2013	-6	-2.9	-1.1
Q1 2014	-4.5	-2.2	-1.3
Q2 2014	-4.2	-1.3	-1.4
Q3 2014	-5.4	-2	-2.2
Q4 2014	-6.3	-2.1	-2.5
Q1 2015	-5.2	-2.3	-1.7
Q2 2015	-3.6	-0.7	-1.5

The last columns of Figure 1 show the three components of the current account balance: exports minus imports, net investment income (or 'primary income') and net interest income (or 'secondary income'). The sum of these gives the total current account balance.

Current account deficits are not inherently 'bad' in the same way that running current account surpluses is not inherently 'good'. Developing countries may wish to run a current account deficit to import capital goods, with a view to improving their productivity in the future. Countries that rely too heavily on their exports may run into trouble if the price of their commodity falls unexpectedly (as with oil-producing countries in 2015/16).



Running a current account deficit is nothing new for the UK: there hasn't been a current account surplus since 1992. But some economists are concerned about the size of the deficit: the figure for Q4 2014 is the largest ever deficit in peacetime.

One of the worries about current account deficits is that they have to be funded by borrowing. If this persists over time, interest payments become a burden. It can also be funded by foreign investment in the domestic country. A recent example is the investment in building nuclear power stations in the UK. Some fear that too much foreign investment could compromise an economy's long-run growth potential.

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Others argue that if the deficit grows too large, the exchange rate will depreciate to improve the balance of payments. They also argue that investors have a lot of confidence in the UK because of many other measures it is performing strongly. Therefore, investors will not leave the UK any time soon. Furthermore, now that the UK is a net importer of oil, the low oil prices will prevent the deficit from worsening (so long as prices stay low).

It remains to be seen whether the UK government or the Bank of England will intervene to reduce the current account deficit, or whether market forces could solve the problem.

Use the data

- Look at the data in Figure 1.
 - Which of the three components of the current account appears to be stable over time?
 - Which of the three components appears to have worsened over time (i.e. increased its deficit)?
- Suppose UK GDP in Q3 (quarter 3) 2012 was £1,600 billion (or £1.6 trillion). Using the size of the current account deficit in Q3 (quarter 3) 2012, calculate the size of the current account deficit in Q3 (quarter 3) 2012.
 - If UK GDP in Q3 (quarter 3) 2014 was £1,750 billion (or £1.75 trillion), calculate the size of the current account deficit in Q3 (quarter 3) 2014.

Test your knowledge...

- What is the *balance of payments*?
- Based on the article:
 - Explain the effect on the current account balance if the value of UK investment in the rest of the world increased.
 - Explain the effect on the UK's current account balance of an increase in the value of UK exports.

Extended-response question

- Assess the effectiveness of investing in one of the UK's export sectors as a way of reducing the current account deficit.

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When will the UK raise interest

This case study covers a range of Component 2 topics

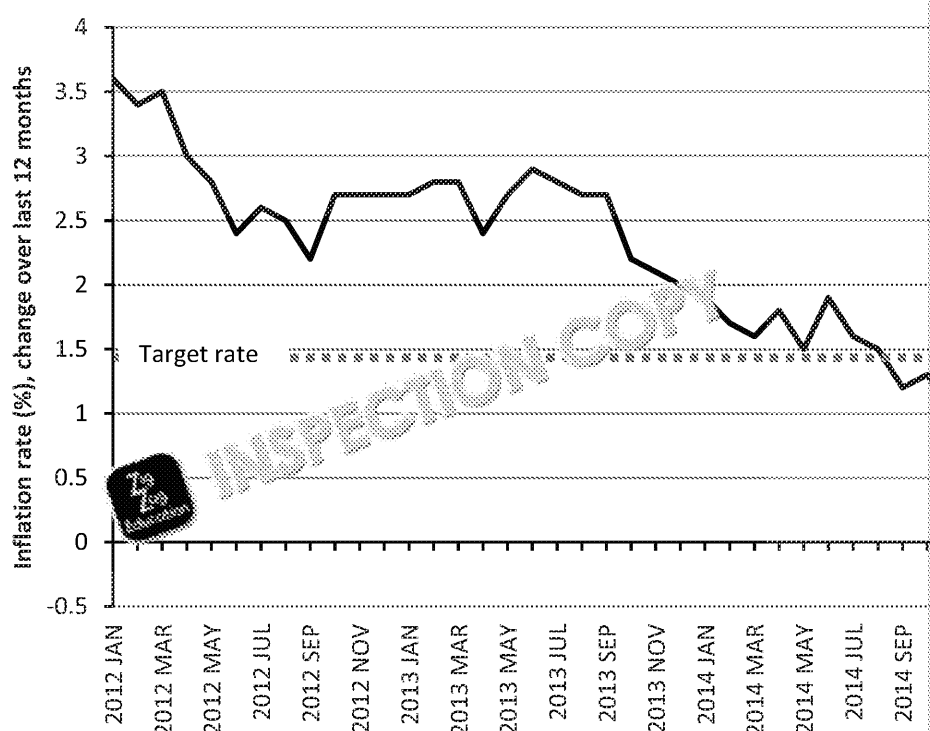
Interest rates are one of the key tools central banks use to guide the economy in the right direction. The Bank of England's Monetary Policy Committee meets every month to decide whether or not to change interest rates. In the UK, interest rates have been at a historic low of 0.5% since March 2009. Financial commentators have been continually pushing back their predictions of when rates will finally go up again.

In Japan, interest rates fell to -0.1% in January 2016 to try to stimulate growth, but the Bank of Japan is more optimistic: the Federal Reserve increased the US interest rate in December 2015. The UK seems to have recovered from the recession, so why haven't interest rates gone up here as well? Mark Carney – the Canadian-born governor of the Bank of England – is concerned about an array of economic risks facing the country in 2016.

The main worry is that a combination of low oil prices and a fall in China's growth means that the global economy will have a weak year. The UK is highly integrated with the rest of the world (more so than the US), so it will certainly be affected by an economic slowdown.

Another factor is the inflation rate. Traditionally, monetary policy is designed to maintain a stable, positive rate. As Figure 1 shows, the UK has seen unusually low inflation in recent years.

Figure 1: UK CPI Inflation 2012–2015

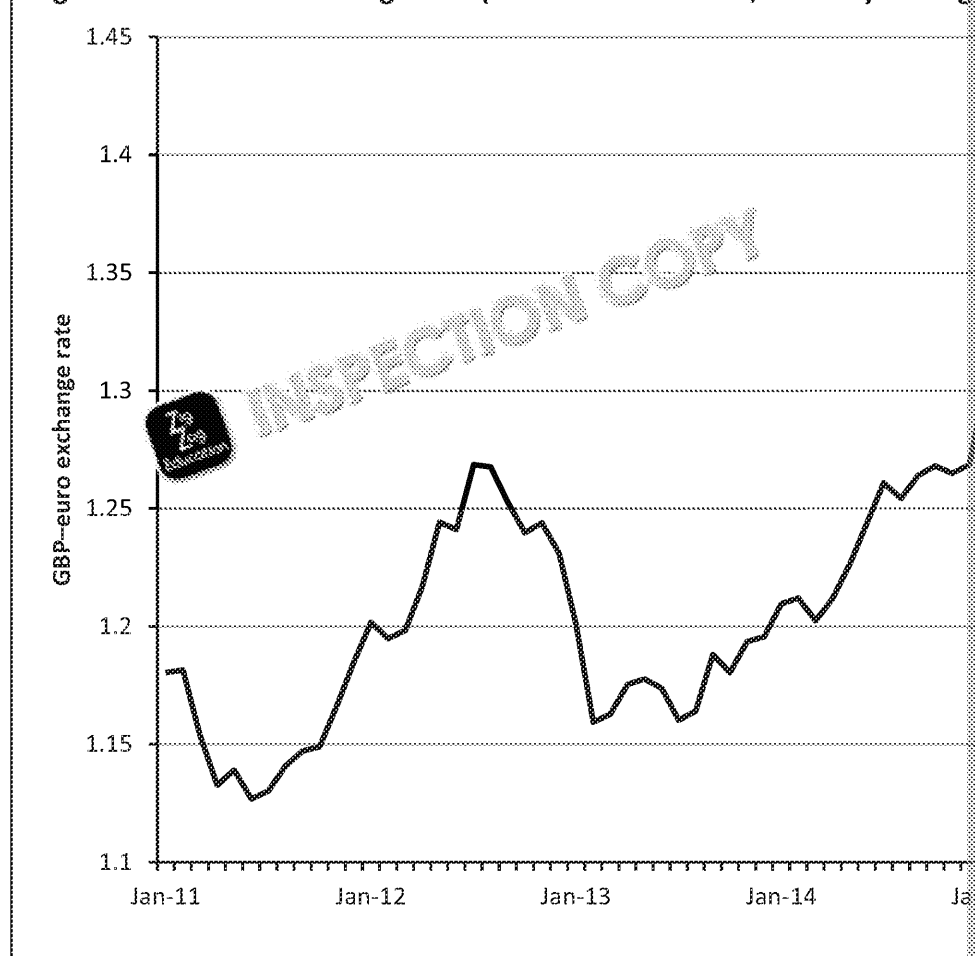


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It is feared that if interest rates are hiked too soon, the result could be deflation. Related to this is the UK exchange rate (see Figure 2). The pound was relatively stable until 2013, but it has been falling because of uncertainty about the UK's referendum on EU membership.

Figure 2: GBP–EUR exchange rate (value of £1 in euros, monthly average)



There is another difference between the UK and US economies that may explain the difference in inflation rates: fiscal policy. In the UK, the government is pursuing contractionary fiscal policy to reduce the budget deficit. The US, in contrast, has relatively expansionary fiscal policy.

Use the data

- Which of the following terms best describes the trend in Figure 1: (a) disinflation, (b) stagflation, (c) deflation?
- Explain why deflation might be dangerous for an economy.
- Suppose the GBP–EUR exchange rate is 1.15 (as in early 2013). In this case, how many pounds can you buy with 1 euro?

Test your knowledge...

- Give two reasons why the UK inflation rate might have been falling (Figure 1).
- Explain how an increase in the interest rate would be expected to affect the UK inflation rate.
 - Explain the main consequences of the change in the exchange rate for the UK economy.

Extended-response question

- Assess the effectiveness of lowering interest rates to stimulate economic growth.

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Answers

Mark scheme: extended-response questions

10 marks

Knowledge (2), application (2) and analysis (2)		
	0	No relevant answer given.
Level 1	1–2	A few concepts may be identified correctly, but inconsistently, and with little thought behind the causes and effects.
Level 2	3–4	Some knowledge of economic concepts is shown, partially linked to the reasoning skills, but may focus too much on one side of an argument.
Level 3	5–6	Knowledge of the economic concepts is very accurate. Links to the question are clear. Examples are given. Analysis is well reasoned and logical, and appropriate for the question.
Evaluation (4)		
	0	No evaluation.
Level 1	1–2	Limited attempt at evaluation – may be only loosely related to the question.
Level 2	3–4	Accurate, balanced evaluative comments are made, supporting a rounded response to the question.

15 marks

Knowledge (3), application (3) and analysis (3)		
	0	No relevant answer given.
Level 1	1–3	A few concepts may be identified correctly, but inconsistently, and with little thought behind the causes and effects.
Level 2	4–6	Some knowledge of economic concepts is shown, partially linked to the reasoning skills, but may focus too much on one side of an argument.
Level 3	7–9	Knowledge of the economic concepts is very accurate. Links to the question are clear. Examples are given. Analysis is well reasoned and logical, and appropriate for the question.
Evaluation (6)		
	0	No evaluation.
Level 1	1–2	Limited attempt at evaluation – may be only loosely related to the question.
Level 2	3–4	Clear evidence of evaluative comments, though they may be unfairly weighted. Reasoning / supporting evidence is provided but may be inconsistent.
Level 3	5–6	Accurate, balanced evaluative comments are made, supporting a rounded response directly to the question.

20 marks

Knowledge (4), application (4) and analysis (6)		
	0	No relevant answer given.
Level 1	1–3	A few concepts may be identified correctly, but inconsistently, and with little thought behind the causes and effects.
Level 2	4–6	Some knowledge of economic concepts is shown, partially linked to the reasoning skills, but may focus too much on one side of an argument.
Level 3	7–10	Good knowledge of economic concepts is displayed, linked to the reasoning skills. Evidence is provided for the main arguments. Analysis is well developed and logical, and appropriate for the question.
Level 4	11–14	Knowledge of the economic concepts is very accurate. Links to the question are clear. Examples are given. Analysis is well reasoned and logical, and appropriate for the question.
Evaluation (6)		
	0	No evaluation.
Level 1	1–2	Limited attempt at evaluation – may be only loosely related to the question.
Level 2	3–4	Clear evidence of evaluative comments, though they may be unfairly weighted. Reasoning / supporting evidence is provided but may be inconsistent.
Level 3	5–6	Accurate, balanced evaluative comments are made, supporting a rounded response directly to the question.

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Case Study 1: The UK's slump in consumption during the recession

Use the data

1. This data is in real terms – you can tell because 2008 is used as the base year (this means the index is relative to 2008).
2. The index in 2009 Q3 is at about 93 – this indicates a fall of 7% from 2008 Q3. 6–8%.
3. This is a bit of a trick question – you can't tell from the graph which type of spending was affected by the actual amounts of spending involved – only the percentage changes (Note: questions about the index are acceptable).

Test your knowledge...

1. Aggregate demand (AD) is the total demand for final output produced within an economy.
2. $AD = C + I + G + (X - M)$. Answers in symbols or words are both acceptable.
3. Household spending fell from a peak of around £225 billion in 2007 Q4 to a low of around £211 billion in 2009 Q2, a fall of about £14 billion. Answers between £13 and £15 billion are acceptable.
4. Diagram should show a shift to the left in aggregate demand: this is because a fall in VAT (which is a tax on consumer goods) encourages consumer spending (the consumption component of AD). Up to 2 marks for correct labelling and 2 marks for showing the shift correctly.

Price
Level
(£)

Extended-response question

1. A good answer must explain how both interest rates and consumer confidence can affect aggregate demand.

Interest rates: A fall in the interest rate makes saving less attractive and borrowing cheaper. This should boost consumer spending. You could also explain that businesses will seek to invest elsewhere, rather than in interest-bearing assets), and that lower interest rates depreciate the exchange rate, since it becomes less attractive for foreign investors. Therefore, exports increase and imports fall – boosting aggregate demand).

Consumer confidence: If consumers are confident about the outlook for the economy, they will spend more, leading to healthy levels of spending. The same goes for business confidence and investment. Both are clearly important elements of a strategy to boost consumption. However, there are several points that can be made:

- Interest rates (usually) can't go below zero. Since the current rate of 0.5% is so low, further cuts in rates can no longer be of use.
- Consumers may want to save no matter how low interest rates are if they believe the economy is in a recession.
- Changes in interest rates have a delayed effect on aggregate demand (time lag).
- Consumer/market confidence cannot be directly controlled by the government. It depends on perceptions of how well the economy is doing, and how competent the government is.

A good conclusion should note that both of these factors are important in determining the overall state of the economy, but they are part of a wider approach to tackling the problem (i.e. they won't be nearly as effective if used in isolation). It is also possible to make an argument that one factor is more important than another, as long as it is well justified.

Case Study 2: The economics of immigration

Use the data

1. Around 1983 (emigration exceeded immigration) in one or two years after that, but then immigration exceeded emigration again.
2. (a) Around 200,000 (acceptable range 150,000–225,000)
(b) Around 10,000 (acceptable range 5,000–25,000)
3. The labour force participation rate would increase.
4. The labour force participation rate would worsen, as the 'bulge' from the migration of young people would reach retirement age (retire).

Test your knowledge...

1. Immigration was roughly 590,000 and emigration was roughly 340,000, so net migration was roughly 250,000. An answer between 225,000 and 275,000 is acceptable for 1 mark.
2. Between 1964 and the mid 1980s, net migration was usually small and negative. This changed in the late 1980s, when net migration began to climb at a faster rate than emigration, and net migration became positive and large. A period of negative net migration, 1 mark for identifying period of positive net migration.

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- Short-run aggregate supply (SRAS) refers to the situation in which there is at least one factor of production that is not fully flexible. Producers respond to changes in prices (brought about by movements in AD) by varying the quantity of output produced. SRAS is shifted by changes in costs of production (1). Long-run aggregate supply (LRAS) refers to the productive potential of an economy. In the long run, all factors of production are fully flexible. LRAS is determined by *all* factors of production. LRAS shifts when the productive capacity of the economy changes.
- Possible answers include:
 - Technological advance
 - Improvements in productivity
 - Improvements in education and skills (human capital)
 - Regulatory changes / competition policy changes
 Other answers are possible so long as they are well justified: 1 mark for stating each factor that can increase LRAS.

Extended-response question

- There are several points in the article that you can mention, both for and against the policy. Points for could include:
 - Increasing size of the labour force (evaluation point: more effective in countries with a high population, e.g. Japan)
 - Bring in a wider range of skills (e.g. technical skills, language skills) – boost to human capital (evaluation point: depends on skill composition of migrants)
 - Migrants may be harder workers or contribute disproportionately towards industry growth (evaluation point: compared to native workers (e.g. NHS. Evaluation point here is that migration is more beneficial in sectors with shortages either generally, or in specific sectors.)
 - Potential to foster better trade relations between sending/host countries
 Points against could include:
 - Overcrowding / undesirable population growth (evaluation point: particularly in countries with a shortage of housing supply such as the UK)
 - Diminish labour market opportunities for native workers through lower wages (evaluation point: only applies when there is a shortage of jobs to begin with, could be mitigated by migrants)
 - 'Brain drain' effect from sending countries (when countries lose their best and brightest, and the remittance payments back to families)

Although they are not direct economic issues, you could also point out potential social issues that could arise from migration. This could be mitigated by government policies to integrate migrants. You can draw an AD/AS diagram to show the increase in AS from migration (and a possible shift in AD).

You can be either for or against the policy in your conclusion, but for Level 3 evaluation you need to discuss contexts in which the policy could be successful/unsuccessful.

Case Study 3: Economic growth in the UK – back to business as usual?

Use the data

- 2.5% (accept 2–4%)
- Nominal GDP figures do not account for the effect of inflation, so GDP figures appear to be higher (also the real GDP figures would be higher). Visually, the graph would appear to have shifted upwards.
- USA's GDP growth is given as 2.4% in the table. To find the new GDP, we can use the formula: $(17 \times 102.4) / 100 = \17.408 trillion.

Test your knowledge...

- GDP is the value of final output (or goods and services) produced in an economy over a period (1). 'Real' GDP means the effect of inflation has been removed. It is adjusted by dividing it by the GDP deflator (essentially an inflation index) (1). 'Nominal' GDP is the value of output produced. If *real* GDP wasn't adjusted to account for price changes, doubling the price of all goods produced within the economy would double GDP, despite there being no actual increase in output (1). This is clearly misleading (1).
- Measuring GDP is important because it is a simple indicator of the economic health of a country. The higher the value of GDP, the better off an economy is. This is because GDP can be understood as a measure of national income, or national output. Any of these three things being higher should indicate a better condition (1). It also allows us to track the rate of *economic growth* over time, as well as the rate of inflation.

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- Possible answers include: market confidence, low borrowing costs, low oil price, rev...
1 mark for each identified factor. You cannot have the expansionary monetary policy...
Statement (since this was after 2014).
- Costs of economic growth: inflationary pressure, recession (if economic growth is un...
degradation, inequality, current account deficit.
Benefits of economic growth: improvements in standard of living, increases in income...
government borrowing, investment, improvements in public services, social cohesion...
1 mark for **each** cost and benefit. 1 mark for **each** explanation. Note, list of costs and...

Extended-response question

- GDP measures the total value of output in an economy. When you adjust for population...
inflation (real GDP) this can give a good impression of the *size* of an economy. How...
compare the *success* of different economies, many important factors are omitted:
 - Living standards.** It can be more informative to adjust GDP using the concept of...
account for different living standards across different countries (PPP should be clear...
Accounting for living standards tends to narrow the perceived gap between rich...
are usually relatively small in poorer countries.
 - Inequality.** High per capita GDP figures give no indication of the distribution of...
ex... rapid economic growth, but this would not benefit the general population...
to a small elite.
 - Negative externalities.** GDP only measures the total value of output, it doesn't...
'bad' output. Economic growth may come hand in hand with environmental damage...
of land for commercial purposes.
 - Happiness.** Having a higher average standard of living does not guarantee that...
end up working excessively long hours and spend less time with their families...
wealth increases happiness up to a point – but increasing wealth beyond that point...
This is notoriously difficult to measure, however.

In your answer you could also make reference to 'composite' indicators such as the...
of factors before comparing countries' performance (with respect to economic devel...
that there are problems measuring GDP itself –e.g., GDP not account for the size of...
illicit economic activity) – which varies greatly between countries; GDP only measure...
but not changes in *quality* which is arguably more important. A good answer should...
these points in depth.

Case Study 4: Mozambique – an African lion?

Use the data

- Clearly Mozambique's GDP growth rates have been much higher than the UK's since...
without having to look at a graph for the UK). Also, Mozambique seems to have been...
financial crisis of 2008.
- GNI is the total income of all a country's citizens across the world (whereas GDP...
within a country's borders, regardless of nationality).
 - Output/income per person, rather than in total.
 - PPP (purchasing power parity) means that the figures are adjusted for the cost of...
country.
- Since the expected years of schooling (for children entering school) is significantly greater...
schooling (calculated for those aged 25+) this indicates that the education dimension...

Test your knowledge...

- Other indicators could include: poverty rate, literacy rate, access to clean water...
child mortality and environmental sustainability (although these are often linked to...
HDI). Happiness –measured through indicators such as Gross National Happiness –...
development – although it's important to be aware of the Easterlin paradox that...
incomes don't necessarily correlate with higher levels of happiness!
- Possible answers include: abundance of natural resources / international trade, economic...
policies, foreign investment.

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Extended-response question

1. Your answer should note that having abundant natural resources can help boost economic development, but not in all cases (on this point you should mention the resource curse). You may also note that economic growth does not guarantee economic development. You may also note factors that can improve development aside from having natural resources, e.g. a good financial system, health, demographics, investment, savings and debt. An important factor is that specialisation in the primary sector might keep a country such as Mozambique stuck in the primary sector, while specialisation in the tertiary sector would allow it to move forward.

It is expected that you will conclude that natural resources can help boost economic development if managed, but that it is only one of many potential factors that can contribute to economic development.

Case Study 5: Youth unemployment in Italy

Use the data

1. The 55–64 age group data shows a slight rise in the unemployment rate between 2001 and 2007 (from around 6%). The 15–24 age group also shows an increase, but a far more dramatic one, from a low of around 20% in 2007 to 40% in 2015.
2. (a) An increase of around 20,000 (accept 10,000 either way).
(b) After a small increase in 1994, unemployment fell steadily until 2002. The next year it rose slightly, before falling to a low of 20% in 2007. The overall trend was a decrease.
3. There are any number of possible solutions you could come up with, but virtually all have drawbacks. Example policies and drawbacks you might come up with could include:
 - Investing in education and training – long-term solution only (has an opportunity cost, but the article states that more young people are going to university, but then they are not getting jobs).
 - Providing incentives/legislation to encourage employers to employ young people (politically unpopular).
 - Investing in existing/new industries to expand employment opportunities (only guaranteed in these sectors, very long-term solution).
 - Taxing older workers, who benefit from employment protection, to fund schemes for young people (politically unpopular).
 - Reducing/removing employment protection regulation – a crucial barrier to young people's employment. Excessive employment protection regulations that make it difficult for firms to hire and fire workers during a recession. Firms, therefore, choose not to hire less-experienced youth workers because of the high expenses related to this situation. Removing such barriers could make hiring young people more effective. This policy potentially has adverse effects on workers' perceptions of job security.

Test your knowledge

1. $\text{Unemployment rate} = \frac{\text{number of unemployed people}}{\text{total labour force}}$. (1)
In this case, the total labour force has decreased, so the unemployment rate increased.
2. The text already mentioned structural unemployment, so possible correct answers include seasonal unemployment, demand deficiency / cyclical unemployment, unemployment due to involuntary/voluntary unemployment.
1 mark for each identified cause.

Extended-response question

1. The answer should focus on both the economic and social consequences of unemployment. Social consequences include increased crime and health problems, lower living standards, possible family problems, a loss of skills (with long-term effects), or any similar justified points. It's important to connect them to the fact that full employment is a macroeconomic objective, e.g. the operational objective of the government. Therefore, economically, unemployment implies a loss of productive capacity. The main economic consequences include lower economic growth, lower living standards (due to the lower economic activity), and a worsening government budget (as benefit payments increase, and tax revenues fall). The passage also mentions the possibility of a loss of skills. To get higher marks, these consequences (particularly the economic ones) must be clearly stated.

For evaluation points, it could be mentioned that some types of unemployment are more likely to be long term, such as frictional unemployment (which is inherently temporary and cyclical unemployment (again, this is temporary) and possibly cyclical unemployment (so long as the economy is not too deep). It may be helpful to note that in the case of Italy, where unemployment is so high, these types of unemployment cannot be as easily ignored.

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Case Study 6: UK unemployment – successes and challenges

Use the data

1. The main explanation is that the claimant count ignores those who are unemployed but not claiming benefit for various reasons (e.g. too much hassle to claim, don't like the stigma of claiming). (1)
2. 55% of 60 million is 33 million (size of the labour force). Figure 2 tells us that the male unemployment rate was around 6%, so that means that 1.98 million men were unemployed (6% of 33 million). (1)
3. The graph shows that male employment rates are higher than female employment rates, but the gap is narrowing over time (the gap in 1990 was roughly 20 percentage points, in 2015 that was around 10 percentage points). The gap could be explained, for example, by the fact that women are more likely to care for children. The narrowing of the gap seems to be down to greater employment opportunities for women, while male employment has remained fairly steady, perhaps due to a shift in societal attitudes. (1)

Test your knowledge...

1. Economically active people are those that are either working (employed) (1) or looking for work (unemployed). The number of economically active people is the same as the size of the labour force. You need to mention both people count as economically active to get the full two marks. (2)
2. 'Full' employment is a key macroeconomic policy objective for a number of reasons. First, high unemployment means that the economy is not operating at its productive capacity, leading to lower output and higher unemployment. Second, there are long-term effects of unemployment that a government needs to address, such as loss of skills and hysteresis. Third, unemployment has fiscal costs for a government, as there are higher welfare costs and tax receipts lower when there is unemployment. Finally, unemployment has social costs, such as crime, poor health, social dislocation. It is for these reasons that governments aim to achieve full employment. (2)
3. Possible answers include: structural unemployment, demand deficiency / cyclical unemployment, frictional unemployment. (1 mark for explaining how it works). (1)

Extended-response question

1. Your answer should discuss the significance of several consequences of unemployment and economic costs. (2)

Possible **economic** consequences include:

- Fall in tax revenue and/or increase in unemployment benefit spending (which increases the budget deficit). This has knock-on effects on the economy: it could lead to a rise in government spending in other areas.
- Loss of economic growth (lower output/GDP due to less work, plus fall in consumption).
- Costs to the unemployed themselves: economic costs (lower living standards), social costs (loss of skills). Could mention that the longer someone is out of work, the more difficult it is to get back into work. There are fears in countries such as Spain and Italy of a 'lost generation', since young people are not getting the experience and skills they need to enter the workforce.

Social costs include crime and various health problems.

Case Study 7: UK inflation in the 1970s

Use the data

1. Around 27% (in 1975). Accept 26–28%. (1)
2. (a) Inflation fell from around 22% to around 5%, a fall of 17 percentage points (any answer between 15 and 19 percentage points is acceptable). (1)
(b) This is known as disinflation – a reduction in the rate of inflation (not to be confused with deflation). (1)
3. Inflation in 1970 was around 5%, but increased rapidly to a peak in the middle of the decade of around 7–8% before climbing again towards the end of the decade to around 22%. (1)

Test your knowledge...

1. The passage notes a sharp increase in oil prices and low interest rates (also known as loose monetary policy). (1)
2. Deflation is when the inflation rate is negative, i.e. when prices are falling (1). Disinflation is a fall in the rate of inflation (e.g. from 5% one year to 3% the next) (1).
3. Consumer Price Index (CPI) is the UK's main measure of inflation. It is based on a basket of goods and services, which are weighted according to consumption patterns. Retail Price Index (RPI) is based on a different bundle of goods and a partially different demographic (1). For instance, RPI includes council tax, which is not included in CPI. RPI also includes many items related to housing expenditure (e.g. council tax, etc.) that CPI excludes (1).
4. 'Cost-push inflation' is inflation that occurs through increasing prices of inputs which leads to higher prices for final output (1). 'Demand-push inflation' occurs when aggregate demand increases, causing the economy's general price level to rise (1).

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Extended-response question

- Your answer should explain clearly several costs of inflation, before assessing their significance (whether inflation can be beneficial in some ways). Possible costs of a high rate of inflation include:
 - Uncertainty.** Consumers might postpone economic activity, given how rapidly prices are changing. Businesses will be unclear about their costs of production, and may have difficulty setting prices (menu costs).
 - Shoe-leather costs** (cost to consumers of having to compare prices more often).
 - Reduces value of savings / fixed incomes.** Inflation creates winners and losers: savers and those on fixed incomes suffer a fall in their wealth, as will those whose incomes do not automatically adjust for inflation.
 - Possible **wage-price spiral** (if inflation is high, it leads to workers negotiating higher wages, higher inflation, and so on)
 - Fall in international competitiveness** (inflation is a sign of economic weakness, which deters investment, and the price of exports appears inflated).

An evaluative point you could make is that the costs depend on how high the rate of inflation is, and how long it lasts (higher and more prolonged periods of inflation are more damaging).

As another evaluative point you could explain that a low and stable rate of inflation is considered beneficial since it acts as a gentle encouragement for people to spend money (which boosts economic growth).

Furthermore, another evaluation point is that whilst there are costs of inflation, there are also benefits. For example, prices might fall, leading to more consumption decisions because consumers feel that they might be able to buy more in the future, falling prices also increase the *real* value of debt – transferring wealth from debtor to creditor, real interest rates discouraging borrowing; if wages are 'sticky,' real-wage unemployment cannot decrease wages to match falling prices.

Case Study 8: Canada's economic policies

Data response question

- GDP per capita = \$50,000 and population = 35 million, so GDP = \$1.75 trillion. Government spending in money terms:
Government debt = $1.75 \times 0.865 = \$1.5 \text{ trillion}$
- Figure 2 states that energy consists of 10% of GDP. GDP is \$1.75 trillion, so energy is \$175 billion in the economy.
- Canada's population is 35 million, and Figure 2 states that $16 + 1.8 = 17.8$ million people are in employment. So the percentage of Canadians in employment = $(17.8 / 35) \times 100 = 50.857\%$
- From Figure 2: roughly 16% (accept 15–17%)

Test your knowledge

- We would expect the % of government spending as a share of GDP to increase, so the graph should show an upward trend over the next few years. 1 mark for identifying increase / upward trend.
- You can either show an increase of both AD and AS on one diagram, or show them on separate diagrams. 2 marks for labelling, 1 mark for shift in AD, 1 mark for shift in AS. Note: the eventual effect on the price level will depend on how you draw the curves: in this graph no change in the price level is shown but an increase/decrease is also correct.
- Trudeau's suggested fiscal policy is to increase investment in infrastructure. It is, therefore, a 'capital' expenditure. It differs from a 'current' government expenditure because it is an investment concerned with producing a *future* benefit rather than a *current* benefit.

Extended-response question

- You could structure your answer either by talking about short-term positives/negatives, or by talking about all the positives over both the short- and long-term and then moving on to the former approach:

Short-term benefits:

- Boost to employment leading to boost in economic growth. Potential for multiplier effect.

Short-term costs:

- Possible inflation if AD shifts significantly (since AS takes a while to catch up).
- Increase in budget deficit (if the government isn't financing this expenditure with a decrease in other government expenditure).

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- Could reduce market confidence, increasing interest rates. Or it could have no faith in the long-term economic benefits of the plan.
- Expenditure as a fiscal policy might have the adverse consequence of 'crowding out' private investment as the result of expansionary fiscal policy and this might disince
- Opportunity cost of government expenditure.

Long-term benefits:

- Greater efficiency/productivity (evaluation: this is assuming that the infrastructure not go over budget)
- Higher potential economic growth rate

Long-term costs:

- Government expenditure might outweigh government tax receipts and so this could lead to problems associated with national debt; this might include higher debt repayments (the higher growth rate offset this or not), or difficulty borrowing in the future.
- May have to lay off workers who were employed on the project temporarily

You could draw an AD/AS diagram to illustrate your answer, or simply refer to the diagram (rather than drawing it again). You could conclude that the policy would be beneficial in the long run as it is well justified. Alternatively, you may argue that it would be good because Canada's economy would be bad because Canada faces falling export prices, low

Case Study: Greece's debt problem

Use the data

1. 2015; its budget deficit amounted to about -15% of GDP (1).
2. Actual values for Greek debt to GDP are – 2007: 103.1% and 2015: 176.9% (1)
Percentage change is given by the following formula:

$$\% \text{ Change} = \frac{\text{Change}}{\text{Original}} \times 100$$

Therefore, percentage change is 71.6 (1).

(Note: allow some flexibility in students' answers as long as the estimated values for are reasonable.)

3. In 2011, the Greek government negotiated a 'haircut' on debts payable to private firms. This amounted to a 50% reduction in the debts owed by the Greek government. Therefore, the percentage change between 2011 and 2012 (1).

Test your knowledge...

1. A 'good tax' is based on the following four principles. First, it should ensure *equity* – proportional to the ability of individuals to pay, or, in other words, it should be 'fair' meaning that it should be difficult for people to avoid. Third, it should have low administrative costs, be convenient and easy to understand.

Greece's tax policy cannot be thought of as a 'good tax' because it has affected the economy. It is clearly not enforceable because tax evasion is pervasive in the Greek economy. The consequences in that it has discouraged economic activity and incentivised companies to move abroad.

2. A 'budget deficit' refers to a situation in which government expenditure exceeds government revenue. 'National debt', however, refers to the total amount of debt owed by a government, expressed as a percentage of GDP. However, the two concepts are related because a budget deficit necessarily added to the national debt since such deficit can only be financed through borrowing. It can be thought of as *compounded* budget deficit over time.
3. Greece's budget deficit is most likely a mixture of structural and cyclical factors. Structural deficits are a fundamental imbalance in governmental finances. Cyclical deficits, in contrast, track the economic cycle, e.g. when an economy is in a recession, tax receipts decrease and government expenditure increases. Greece's budget balance has consistently been negative from 2007 to 2015 because of cyclical factors, e.g. the global recession. However, it is in part a structural issue because government expenditure is interest payments on debt accumulated over time which is a structural issue. Moreover, although not shown graphically, Greece has run deficits for many years, indicating that structural problems are present.

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Extended-response question...

1. Policies to reduce the budget deficit are: (i) decrease government expenditure; (ii) increase monetary policy to stimulate economic growth.

Reduction in government expenditure and increases in taxation both directly improve the budget position. When employed together these policies are called 'austerity'. However, there are significant effects on society. It is known that government expenditure has a multiplier effect. When governments decrease expenditure the effect of this decrease is not one-for-one in the short run, but a larger effect than the initial change. Therefore, this policy tends to shift AD inward, causing negative growth effects in the economy. Importantly, this might decrease the rate of growth, increasing the national debt burden by decreasing GDP (as seen in the case of Greece). The multiplier effect of decreasing government expenditure might have a negative effect on the economy, cancelling out the policy. It is also important to consider the type of expenditure that is cut. Cuts could have lasting effects on the supply side of the economy. Note, however, that the independence of monetary policy it is possible to mitigate the negative economic effects of decreasing expenditure with expansionary monetary policy.

Likewise, increasing taxation serves as an impediment to economic growth, but it can also reduce income inequality, and has other unintended consequences, such as tax evasion, corruption, and disruption to economic activity. If an economy is in a recession, increases in taxation can be particularly harmful. Note that this is in direct conflict with Keynesian approaches to producing growth. Finally, governments could attempt to produce economic growth in order to improve the budget deficit – if tax receipts should too increase without having to change the fundamentals of the economy. This is the least harmful way of reversing budget deficits. However, achieving growth is difficult. In Greece, where forced austerity and no control of monetary policy has left them spiralling into a recession. Moreover, if the budget deficit is of a structural, rather than cyclical, nature then economic growth is not successful in changing the underlying causes of the deficit.

Case Study 10: Monetary and fiscal policy in the Great Depression

Use the data

1. 1936 (since the index has returned to 100)
2. A recession is defined as two consecutive quarters of negative GDP growth. Figure 10 shows a recession, as GDP fell consistently from 1930–1932.
3. 6 months

Test your knowledge...

1. Around 34% larger (index number of 134). 32–26% acceptable.
2. (a) Your graph should show a shift to the right in AD. 2 marks for correct labelling (you should show new price level and real GDP level). 2 marks for showing the shift correctly.
(b) Possible reasons include: higher consumer spending, higher investment, higher net exports. 1 mark for stating the reason, 1 mark for explanation of how it works (e.g. higher consumption and investment because saving is less worthwhile, higher net exports because exchange rate depreciates as fewer people choose to save pounds).

Price Level (£)

Extended-response question

1. Your answer should explain that at least two or three demand-side policies can increase economic growth (at least one monetary policy and at least one fiscal policy). You could include an AD/AS diagram to the right of your answer in Question 2. You should also note some of the drawbacks of these policies.
 - Lowering interest rates should increase economic growth, since it increases the rate of investment (as explained in Question 2). Evaluation: this is only effective up to a point (interest rates cannot fall below zero), and there may be a time lag between changing the rate and seeing an effect. It also depreciates the currency, which could be damaging for countries which rely on exports.
 - You could also mention increasing the money supply, which has similar effects to lowering interest rates. This could lead to inflation (this is a general criticism of demand-side policies) or lead to a loss of confidence in the currency.
 - Government spending is an example of fiscal policy that can stimulate growth. Its success may depend on the size of the multiplier. However, this spending can also lead to a rise in the budget deficit / national debt. There may also be a substantial time lag between spending and growth. Another potential evaluative point is that government spending could 'crowd out' private investment.

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- Lowering taxes is an expansionary fiscal policy, as it encourages greater economic activity. However, the impact on the economy will depend on the nature of the tax cut (some taxes target particular types of activity). Also, lowering taxes could reduce tax revenues, leading to a worsening of the budget deficit. However, some economists argue that it would actually increase tax revenues: Laffer curve).

A general criticism you should mention is that demand-side policies can lead to inflation. However, this depends on whether economic growth in the long term. Here, you could note that the rate of inflation may be high if aggregate supply is increasing or not. You may reason that demand-side policies are best used in times of low economic growth, since there is more likely to be an output gap.

You don't need to mention all these points to reach a high-level answer. You should mention the key points in good detail.

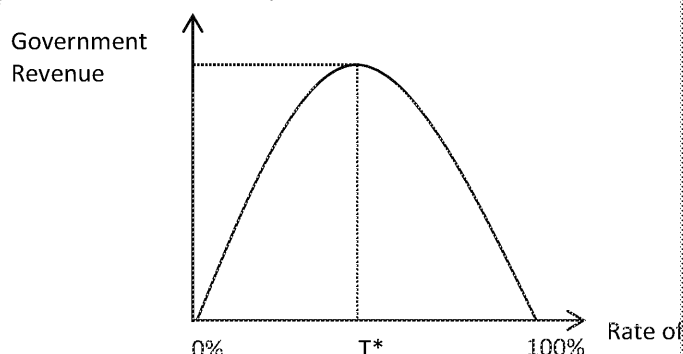
Case Study 11: Ireland's housing market bubble

Data response question

- If average income is €30,000, and Ireland's average house prices are eight times the average price of a house in China, then the average price of a house in Ireland is $8 \times 30,000 = €240,000$. (Since in Q1 2007, the index = 100)
 - In Q1 2012, the index of 166.2 shows house prices are 66.2% higher than the base year. The average price would be $240,000 \times 1.662 = €398,880$.
- The answer is (c) – it is impossible to determine. Since the prices are all in index figures, we cannot compare house prices. Even though Ireland's house prices were proportionally higher in 2007 than the UK, the UK could have been higher to start with.
- We know from Figure 2 that China's real house prices have followed a modest upward trend since 2007. This cannot be explained by falling house prices. A more likely explanation is that the average income has risen steadily: this is a fact you should be aware of (China has single-handedly lifted a staggering number of people out of poverty in the last few decades).

Test your knowledge

- Ireland's house prices increased rapidly from Q1 1993 to a peak in Q1 2007 (1), when prices slowly began to pick up again.
 - The index number for Q1 2007 is 344.1. This indicates that (real) prices are 3.44 times larger than in 1993 (when the index number was 100). Any answer between 3 and 3.5 times larger is acceptable.
- A 'budget deficit' is a budget position in which government revenue, e.g. from taxes, is less than government expenditure. It is unfavourable for a government to be spending more than it is taking in, as this will increase the size of government debt.
 - Ireland's fiscal policy consisted of increasing government spending and reducing tax revenues – government expenditure, this should lead to a budget deficit. However, you can make arguments that in the long term lower taxes lead to higher tax revenues (the Laffer curve) but this depends on the situation). 1 mark for identifying fiscal policy that leads to a deficit.
- Primarily, the relationship between the tax rate and a government's tax revenue is given by the Laffer curve. This is an upside-down U-shaped curve that suggests there is an optimal rate of tax that maximises government revenue. It might seem plausible that increasing the rate of taxation always leads to higher revenue. However, at higher rates of taxation there is likely to be less incentive to supply effort to work and pay tax. (Note, an easy way of visualising this relationship is by imagining a 100% tax rate: this would exert any effort to work, so the government's revenue would be zero. Likewise, at a 0% tax rate, the government's revenue would be zero. Therefore, the optimal rate of tax is somewhere in between).



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Extended-response question

1. Your answer should note that deregulation of markets is traditionally seen as positive capacity of an economy, shifting LRAS to the right. This should be shown on an AD/AS diagram (labelling, and shift in AS shown correctly). You could explain that freeing businesses is generally seen as positive (it often increases employment), and that it may enhance and encourage foreign investment into the country (as it did in Ireland's case). It also unlike many other supply-side policies (e.g. education).

On the negative side, clearly in Ireland's case too much deregulation was a bad thing – bad behaviour to emerge. If financial institutions cannot effectively self-regulate, then they need to be overseen by the government or some other body. On an AD/AS diagram, you could potentially show a shift in AS (during the boom) followed by a fall in AS (during the recession) – this is not required. Your conclusion should mention that the effectiveness of deregulation depends on the direction of the industry to start with.

Case Study 12: Supply-side policies – privatisation in the UK*Use the data*

1. The index shows about 200, compared to 100, so labour productivity is twice as high.
2. Figure 2 shows a sharp fall in government spending, which is exactly what you would expect if the government is no longer funding these industries (since the government is no longer funding these industries). The fall is to do with this, or perhaps to do with the tax cuts under the Conservative government.
3. The 1970s shows very high spending and tax revenues as a percentage of GDP. One of the reasons for this during this period (particularly income tax) were significantly higher than they are today.

Test your knowledge...

1. The main benefit is any gains from competition (efficiency) (1). The costs identified are loss of employment in industries (1), and the divisions in society caused by privatisation.
2. Your graph should show a shift to the right by LRAS: 2 marks for correct labelling (including new price level and real GDP levels), 2 marks for showing shift correctly. Classical LRAS diagrams are equally acceptable.

Price
Level
(£)

P₁
P₂

Extended-response question

1. Your answer should identify the purpose of each type of policy. For example:

Demand-side policies: used to influence AD, contribute more to short-run economic growth than long-run economic growth, particularly useful in recessions.

Supply-side policies: used to influence AS, essential for long-run economic growth, but with high short-term opportunity cost.

A good answer should probably reason that it's not a question of choosing one type of policy, but that different types of policies serve different functions, so both are important for economic progress (and policies are changed all the time). In your answer you could use an AD/AS diagram to show the effects of different types of policy (e.g. the effects of demand-side policies on the demand side, or the arguments around changing tax policy on the supply side).

Case Study 13: Productivity – the UK's long-run growth?*Use the data*

1. (a) Australia
(b) Finland
(c) Canada – this has had a positive effect on every country's growth.
(d) About 2% (between 1.5% and 2.5% acceptable)
(e) Ireland gained 1% from capital input, but lost a little over 2% from labour input, so the net result is a GDP growth rate of around –1.4% (between –1% and –1.8% acceptable).
2. Spain has suffered from severe unemployment since the recession (as well as very low growth). This is probably why the graph shows such a heavy loss in GDP from falling labour input.

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Test your knowledge

1. Diagram should show a shift to the left in aggregate supply. Up to 2 marks for correct labelling, up to 2 marks for showing the shift correctly.
2. Possible factors include: technological improvements, changes to regulations, demographic changes, migration, competition policy, infrastructure investment, improvements in the healthcare system (other examples are possible if they can be justified). 1 mark for each factor.

Price
Level
(£)

Extended-response question

1. The benefits of this policy are clear: increasing productivity increases LRAS, which increases the ability of the economy to grow in the long run (greater potential growth). This could be illustrated using a diagram – it may also be helpful to explain how better education increases productivity.
Several evaluative comments could be made, including:
 - Opportunity cost involved with funding the scheme
 - Possible that more money could be spent on education, but actual quality of education is poor
 - Economic growth will only occur if demand keeps up with supply
 - If everyone is better educated, it may be harder for people to find jobs if structural unemployment increases
 - Long time lag between starting the policy and seeing results: politicians may not be re-elected

Case Study 14: Policy conflicts – inflation and unemployment

Use the data

1. When unemployment falls by three percentage points to 6%, the trend line shows that inflation is 2.5 percentage points higher than the 5% predicted at 9% unemployment.
Note that the trend line only provides an estimate based on this data: the result probably varies.
2. (c) No relationship. A positive relationship would be upward sloping; a negative relationship would be downward sloping. The standard Phillips Curve shows an 'inverse relationship'.

Test your knowledge...

1. Inflation targeting refers to a monetary policy regime in which the central bank conducts monetary policy to achieve an explicit target rate of inflation (1).
2. When unemployment is high, firms can lower wages and still attract workers (1). When unemployment is low, firms have to raise wages to attract workers (1). You could also note that when unemployment is high, incomes fall, demand falls (1).
3. The main other policy conflicts are: economic growth and inflation, economic growth and environmental protection, economic growth and inequality. 1 mark for explaining how each one works (e.g. high economic growth can lead to demand-pull inflation). 1 mark for other policy conflicts if they are well justified.

Extended-response question

1. Your answer should note that allowing either inflation or unemployment to get out of control is bad. Near-zero unemployment means that inflation ends up at 2% then it would probably be higher. Similarly, having very low and stable inflation could cause serious problems for the economy. Finding more of a balance is preferable.

As part of your answer you should discuss some of the costs of inflation and unemployment. Inflation is actually quite good if it is stable and low (the Bank of England target is 2%). Unemployment is bad. It should be focused on slightly more than inflation, since the effects of unemployment are more severe.

A good evaluative point would be that the question assumes that there is always a trade-off between inflation and unemployment. As the passage states, there may have been a breakdown of the Phillips Curve in which case there is less need for the government to balance the two issues (they can have both).

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Case Study 15: China and exchange rate management

Use the data...

1. From Figure 1, students are likely to estimate that Chinese exports-to-GDP is about 37.5% of \$2,752.68 billion is \$1,032.26 billion – $0.375 \times 2,752.68 = 1032.255$
2. Chinese exports fell from 2006 to 2008 because the Chinese government allowed the foreign exchange markets. Instantly the currency *appreciated* from its pegged level. Exports have become more expensive relative to other international competitors. Naturally, exports increase, consumption shifts to cheaper alternatives. Another factor is that the 2008 global recession. Thus, as incomes fall internationally there will be less demand for exports.
3. 2005's USD/CNY exchange rate is approximately 1 USD to 8.25 Chinese yuan. In 2015 it is 1 USD to 6.25 Chinese yuan. Therefore, the percentage change in the price of the Chinese yuan is:

$$\% \text{ Change} = \frac{6.25 - 8.25}{8.25} \times 100 = -24.24\%$$

This is an *appreciation* in the Chinese yuan relative to the USD – this is because it now takes fewer yuan to purchase a single USD than before. (Equivalently, a *depreciation* of the USD against the CNY. (i.e. a USD can now purchase more CNY than before.)

Test your knowledge...

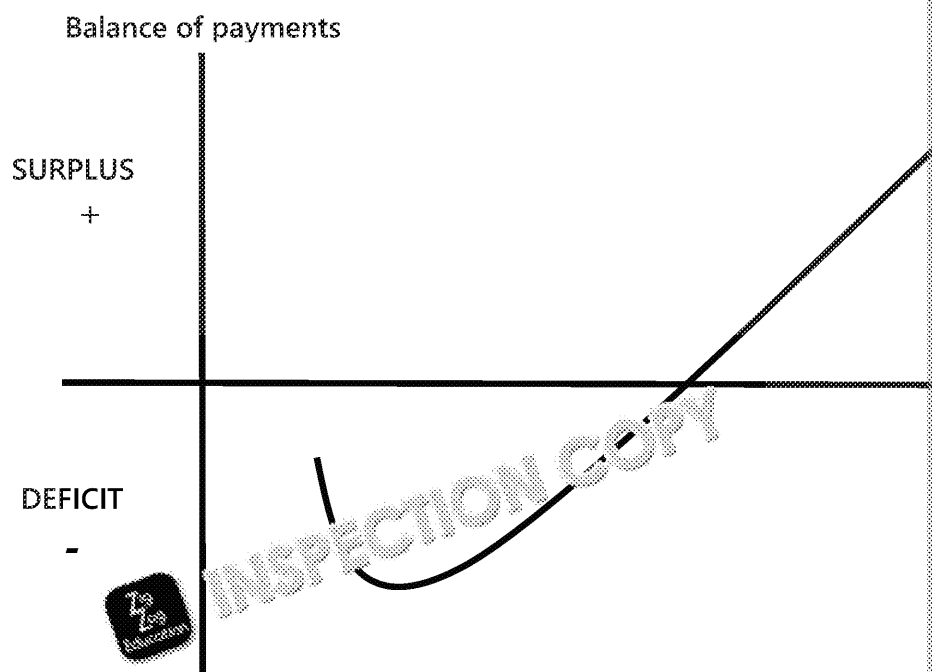
1. Absolute advantage refers to the ability of a country to produce something more cost-effectively (using fewer resources) than another country. Note, it is possible for a country to *not* have an absolute advantage in anything. Comparative advantage, in contrast, refers to the ability of a country to produce something more efficiently than another. Comparative advantage is concerned with production at less than world prices.
2. (a) Terms of trade is the ratio of a country's price of exports relative to its price of imports. The formula is:

$$\text{Terms of trade (TOT)} = \frac{\text{Index of export prices}}{\text{Index of import prices}} \times 100$$

- (b) Export prices increased by 2%. Import prices decreased by 6%. Therefore, the new terms of trade is $(1.02)/(0.94) = 1.085$, or an 8.5% increase. This amounts to an improvement in the terms of trade. In other words, a unit of exports, a country can import more than before.
3. Floating exchange rates are exchange rates determined by the forces of demand and supply in the foreign exchange markets. Fixed exchange rates, by contrast, are exchange rates that are set by a government or central bank, and maintained through buying and selling of foreign exchange reserves to ensure stability at the pegged rate.
4. When a country *depreciates* (floating exchange rates) or *devalues* (fixed exchange rates), it suggests that there should be an improvement in the current account balance, *ceteris paribus*. A country's exports now appear more price-competitive in international markets, while imports become more expensive. However, the J-curve effect suggests that the current account might worsen initially. It might be the case that imports are fairly inelastic in the short run, e.g. because of obligations to import a certain quantity, or because there are currently no suitable domestic substitutes. Alternatively, it might be true that exports are inelastic, e.g. if producers are unable to meet increases in domestic demand due to a lack of spare capacity. Therefore, in the short run a fall in the value of domestic currency leads to a fall in the current account balance because the value of pre-contracted and committed imports increases while the value of exports remains relatively stable. Essentially, there is a time lag before depreciation is able to have the desired effect on the current account. However, as domestic production expands to meet increases in foreign demand, that consumption can shift towards domestic production, the current account improves. As time passes, the depreciation becomes permanent, and so initially they will not change the current account balance. This is illustrated on the J-curve diagram. Time is measured on the x-axis, the current account balance on the y-axis. Initially, the economy is running a current account deficit. The currency devalues and the current account worsens – this is represented by the bottom half of the J-curve. As time passes and consumption become more flexible the current account improves, until the economy returns to its initial level.

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Extended-response question

1. Costs

- Chinese currency manipulation can cause current account imbalances in the US between Chinese and American products. Chinese producers already have a cost advantage as China is labour-abundant and has developed efficient production methods. However, many Chinese products are undervalued, further disadvantaging American producers. Chinese products are the cause of the current account deficit in the US – that is, there are imbalances in international trade.
- Another consideration is that an undervalued Chinese currency has imported inflation into the US economy. This is related to the preceding point. Primarily, US firms compete in international markets because of Chinese competition, which reduces the number of US export-orientated production jobs. Second, Chinese competition also harms domestic US consumers because Chinese imports are relatively inexpensive. Naturally, this reduces the demand for US workers needed for production.
- The US has become debt-dependent on China. In order to manipulate currency values, China has purchased a large number of US treasury bonds in order to maintain its currency value. Because US bonds need to be purchased in US dollars, so China purchases dollars, effectively increasing international demand for dollars while oversupplying yuan, the value of the Chinese currency remains relatively low. The US now owes China payment of these bonds.

Benefits:

- Obviously, the biggest benefit to the US of an undervalued Chinese currency is that it can purchase cheap Chinese products in abundance. First, this has benefits in terms of making the US wealthier – that is, consumers feel that they have a higher purchasing power. Second, this benefits the domestic US economy by keeping input prices down, reducing the effects of cost-push inflation.
- Moreover, because the Chinese government must purchase US financial assets to maintain its currency value, the US has been able to keep its interest rate low. The US government has saved a great deal of money. (However, a major counterpoint is that these low interest rates might have contributed to the 2008 financial crisis through excessive borrowing.)

Case Study 15: Should we be worried about the UK's current account deficit?

Use the data

- Secondary income (or net international transfers)
 - Primary income (or net investment income). Despite the fall in the deficit in 2018, the deficit has not been clearly downwards.
- £49.6 billion (3.1% of 1,600 billion)
 - £94.5 billion (5.4% of 1,750 billion)

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Test your knowledge...

1. The 'balance of payments' is a record of transactions between agents of one country includes the *current account*, *capital account* and *financial account* (1). The current account includes transactions in goods and services. The financial account refers to financial transactions, e.g. investment in physical capital transactions, e.g. FDI (1).
2. (a) This would represent an improvement in the net investment income balance – would improve (i.e. become closer to a surplus). 1 mark for improvement in net investment income balance, 1 mark for current account balance improvement.
(b) Since the extract states that the UK is a net importer of oil, an increase in price worsens the net trade component of the current account balance (i.e. greater cost of imports, 1 mark for worsening of current account balance.
An alternative answer could be: rising oil prices may reduce the demand for oil imports may fall (1), which may lead to no effect on the current account (or a small improvement). However, this may not be the case since oil is a necessity in most countries (1) and the elasticity of demand.

Extended-response question

1. The main benefit of this strategy is that it should boost the amount of exports from the country (ceteris paribus). This strategy is likely to be more successful if it focuses on an industry where the country has a comparative advantage. Your answer should explain this clearly, before discussing some of the possible costs.
 - Opportunity cost involved
 - Possible x-inefficiency (from micro-problems with subsidies reducing the efficiency of the export sector)
 - If other countries are more competitive in these markets, this strategy may not be successful. For example, the UK may not be able to compete with countries such as China, which benefit from low unit labour costs.

Other evaluation points you could mention include: success depends on the world demand for the exports and the initial size of the export sector receiving the investment.

You should come to a conclusion as to whether you think the policy would be successful or not (which it would / would not be successful). You can be for or against the idea, provided you justify your answer.

Case Study 17: When will the UK raise interest rates?

Use the data

1. The answer is (a) disinflation. This is a reduction (fall) in the rate of inflation. Although deflation (e.g. April 2015), this does not describe the majority of the period.
2. Deflation can reduce economic growth, since the value of money is increasing rather than falling, people tend to hold onto money, reducing demand, and potentially leading to further deflation. As a result, GDP growth falls, unemployment increases and tax revenues fall: all of these can lead to a recession.
3. If £1 = €1.15, then €1 = (1 / 1.15) = £0.87 (rounded to nearest penny). Therefore, €43.48 = £43.48 / 1.15 = £37.81 (rounded to nearest penny). Therefore, the UK's current account balance is £37.81 – £43.50 = –£5.69 (rounded to nearest penny).

Test your knowledge...

1. Possible reasons could include: low aggregate demand (or low components of AD, e.g. low consumption, low investment, low net exports), slow wage growth, strong exchange rate (which leads to low import demand), etc.
2. (a) An increase in the interest rate would be expected to appreciate (strengthen) the pound because it becomes more attractive to save in pounds (1).
(b) An appreciation of the exchange rate would be expected to reduce exports (1). It would also be expected to increase imports (1), since the purchasing power of the pound increases. The effect of this is a worsening of the trade balance (or widening of the trade deficit) (1). This could result in higher unemployment.

Extended-response question

1. Your answer should first explain how lowering interest rates can stimulate growth (via increased investment, increase in net exports via depreciation of currency, etc.). You should then evaluate the effectiveness of lowering interest rates alone, based on the passage and your own knowledge. Possible points to include:
 - Time lag between changing interest rates and change in other economic variables
 - Zero-lower bound for interest rates (although Japan has broken this unwritten rule)
 - There are situations when lowering interest rates is not enough to kick-start growth, e.g. when there are structural problems, or when using instruments such as quantitative easing, or fiscal policy such as government spending cuts
 - Low interest rates are supposed to discourage saving, but if households and firms expect the future to be uncertain, they may end up saving anyway. This was the case in the 1980s.

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