Zig Zag Education

Economics A Level | Edexcel A | 9EC0

Data Response Case Studies

For A level Edexcel Economics A

Theme 4: A global perspective

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Teacher's Introduction

This resource is designed to be used for teaching A Level Edexcel A Economics Th
12 Data Response Case Studies intended for upper-sixth students to complete as

The case studies are presented in specification order, collectively covering each t
and revising the main topics from lower sixth. Each case study contains detailed
and data), and tasks and questions.

The 'Use the data' tasks focus particularly on quantitative skills, and the 'Test you
knowledge and application skills. The extended-response questions are an oppo
higher-level analysis and evaluation skills. Most of the questions given are in exa
limited questions to this style except in the case of the extended-response quest
provided for all tasks and questions.

Reading through each study and answering the questions is expected to take 20-
extended-response questions at the end of each case study. One option for usin
study in class and set the exam-style evaluation question as homework.

This resource will help prepare students for the macroeconomic components of t
stimulate an interest in the real-world applications of macroeconomics. Each ca
introducing the student to a fascinating array of contemporary and historical issu
economy.

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

Case Study	Spec refe
1. World economic superpowers: is the USA's reign over?	4.1 International economics (glob
2. Venezuela's inflation problem	2.1 Measures of economics perfo international context)
3. Youth unemployment in Italy	2.1 Measures of economics perfo revision in an international co
4. Brexit and trading blocs	4.1 International economics (trad
5. Subtle protectionism	4.1 International economics (rest
6. The economics of inequality	4.2 Poverty and inequality (inequ
7. Mozambique – an African lion?	4.3 Emerging and developing eco
8. Productivity – the key to long-run growth?	4.3 Emerging and developing eco growth and development)
9. Market failure in the financial sector	4.4 The financial sector
10. Canada's economic policies	4.5 Role of the state in the macro
11. Ireland's housing market bubble	4.5 Role of the state in the macro
12. Footloose TNCs: Google vs HMRC	4.5 Role of the state in the macro global companies' operations

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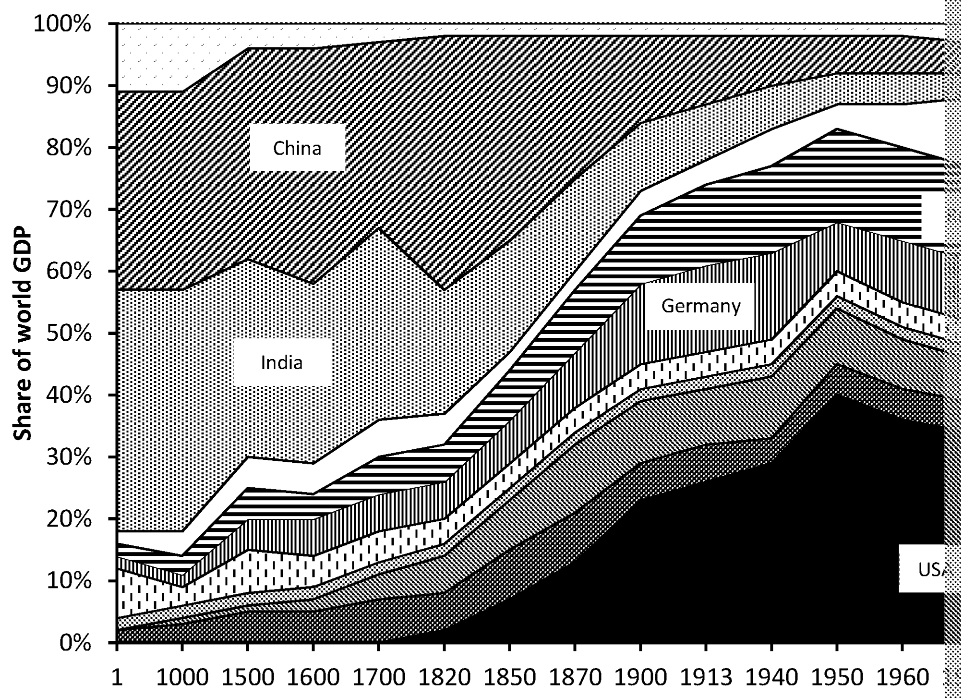
World economic superpowers: is the US

This case study requires knowledge of Section 4.1 – Internatio

The twentieth and twenty-first centuries saw the United States of America economic superpower of the world. Prior to the Industrial Revolution, th China and India that held this honour.

Figure 1: Economic history of China and other major powers



Some commentators reckon that the Chinese government are determined to reclaim their country's lost title. Given the astonishing GDP growth rates recorded in China over recent years, this could become a reality in the not too distant future.

China has experienced breakneck growth rates since the introduction of market reforms in 1978 – following the collapse of communism under Chairman Mao. China's growth strategy features high levels of investment and saving, and huge volumes of international trade. Globalisation has allowed the economy to exploit its comparatively low unit labour costs, enhancing international co seems now that wages in China are finally starting to rise, as the supply o More recently Chinese companies have been branching out by investing i LEDCs, but also in the UK, such as the 2015 investment deals in the UK's r

Unlike most large modern economies, China does not have a pure floating (the renminbi). Exchange rates were fixed against the US dollar from 1994 a 'crawling peg' system, whereby the government can adjust the exchange has led to periodic devaluations of the currency in an attempt to boost exp particular has proven controversial, and some question the sustainability term.

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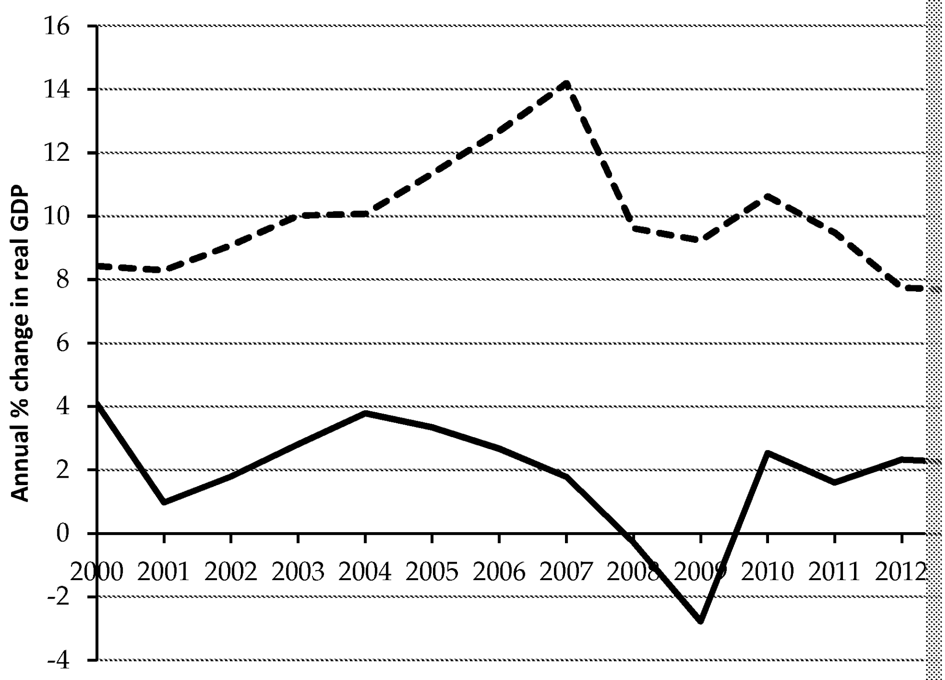
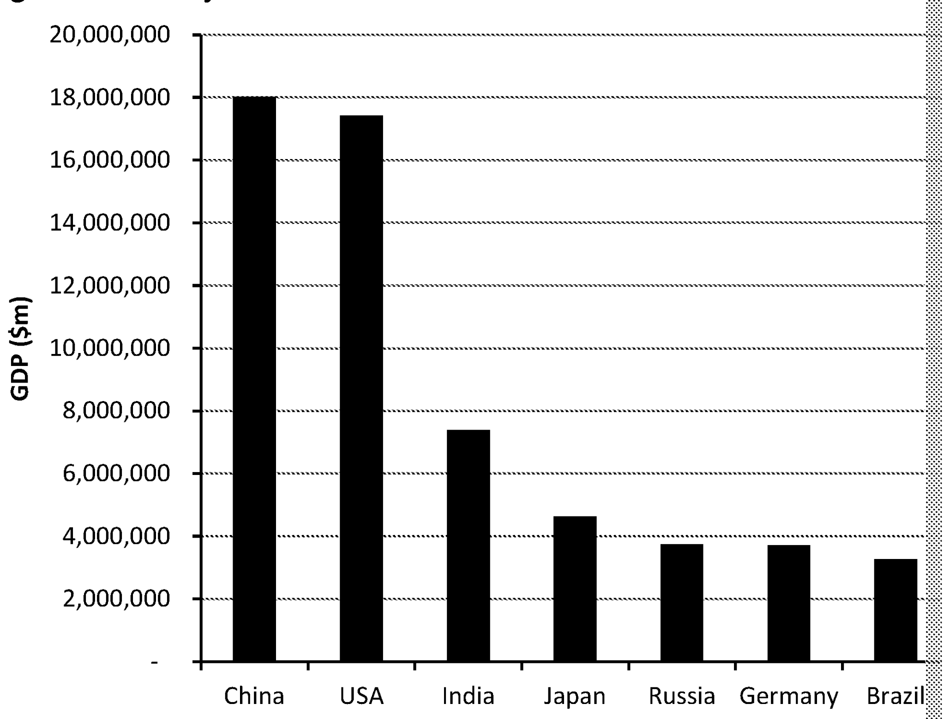
The US was hit hard by the 2008 financial crisis, as the banking system wa international trade collapsed. This prompted a dramatic response by the U confidence and liquidity to the markets. More recently, though, things ha Federal Reserve felt confident enough to raise interest rates in December 2 2006. However, it seems unlikely that the US will be able to match China's the foreseeable future.

Figure 2: GDP Growth Rates 2000–2014



In purchasing power parity (PPP) terms, China is already the world's larg is notable that even though China still lags behind in per capita terms, eco contributed more to the eradication of global poverty than just about any few decades.

Figure 3: PPP Adjusted GDP 2014



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Use the data

1. Using Figure 1, roughly what share of world GDP did China make up in the fo
   (a) 1000
   (b) 1820
   (c) 1950
   (d) 2008

2. Looking at Figure 2:
   (a) Estimate the USA's GDP growth rate in 2010.
   (b) Estimate the China's GDP growth rate in 2010.
   (c) Suppose in 2010 USA's GDP was $15 trillion, and China's GDP was $6 tr calculated in (a) and (b), and assuming that both countries maintain the years (i.e. by 2025) which economy would be the largest?

Test your knowledge…

1. (a) Define GDP per capita.
   (b) Explain why the rankings for China and the USA in Figure 3 would chan

2. (a) Explain the concept of PPP.
   (b) Explain why the rankings for China and the USA in Figure 3 would chan adjusted.

3. Based on the article, state three policies that have contributed to China's ec

Extended-response question

1. *'Once population size and living costs are accounted for, GDP is a good mea economy is.'* Evaluate this claim.

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Venezuela's inflation proble

This case study requires knowledge of Section 4.1 – Internatio
There is a particular focus on inflation, so this case study could also be use

In the West, inflation figures don't make headline news very often. We ar used to inflation fluctuating around a modest 0–5% – not the sort of levels that people tend to worry about. The UK hasn't seen double-digit inflatio since the 1970s.

In other parts of the world, however, high inflation can be a persistent economic woe, often a symptom of underlying economic weakness. Figure 1 shows economic data for Venezuela, along with other Western hemisphere economies. Note the exceptionally high consumer price figur for Venezuela!

Figure 1: Western Hemisphere Economies: Real GDP (annual percentag (annual percentage change), Current Account Balance (% of G

	Real GDP			Consumer prices		
	2014	2015	2016	2014	2015	201
North America	2.4	3.0	3.0	1.0	0.5	1.
United States	2.4	3.1	3.1	1.6	0.1	1.
Canada	2.5	2.2	2.0	1.9	0.9	2.
Mexico	2.1	3.0	3.3	4.0	3.2	3.
South America	0.7	-0.2	1.3	-	-	-
Brazil	0.1	-1.0	1.0	6.3	7.8	5.
Argentina	0.5	-0.3	0.1	-	18.6	23.
Colombia	4.6	3.4	3.7	2.9	3.4	3.
Venezuela	-4.0	-7.0	-4.0	62.2	96.8	83.
Chile	1.8	2.7	3.3	4.4	3.0	3.
Peru	2.4	3.8	5.0	3.2	2.5	2.
Ecuador	3.6	1.9	3.6	3.6	3.2	3.
Bolivia	5.4	4.3	4.3	5.8	5.1	5.
Uruguay	3.3	2.8	2.9	8.9	7.9	7.
Paraguay	4.4	4.0	4.0	5.0	3.6	4.
Central America	4.0	4.2	4.3	3.4	2.6	3.
Caribbean	4.7	3.7	3.5	4.0	3.3	4.

Source: IMF Wo

Figures for 2015 and 2016 are projected.

A key source of Venezuela's problems has been the low world price of oil reliant on oil exports as a source of income. The fall in oil price has cause bolivar) to plunge in value. This makes it particularly expensive for it to i supplies: a severe worsening of the terms of trade. This is a rare example specialisation!

Low oil prices are only part of the story: misguided economic policies mu A system of price controls has distorted the market, causing inefficiencies have incentives to produce the goods needed in the economy. Attempts t problem by fixing the rate have failed: corrupt officials can game the syste between the favourable, official exchange rate and the real, black-market e

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The government has tried to help the situation by printing more currency only led to higher inflation. Official inflation statistics have been hard to c bank seems to have stopped collecting data after the December 2014 figure released.

In a dramatic turn of events in early January 2016, Nicolas Maduro, the pr central bank from the legislature (which elected a majority opposition the concerns that the country may end up experiencing hyperinflation.

It is well known that high rates of inflation can be crippling for an econom shortages have meant that some shop owners have stopped updating the they cannot keep up with the constant price changes. Many consumers ha black market for their goods.

Use the data

1. Using the data from Figure 1:
   (a) Which South American country has the lowest projected inflation rate
   (b) What is the projected annual inflation rate in North America in 2016?
   (c) Name two countries which are expected to experience consistent *disin*

Test your knowledge…

1. Explain the difference between inflation and the price level.
2. (a) Name one cause of inflation identified in the text
   (b) Explain one other possible cause of inflation
3. Explain the relationship between inflation and the exchange rate.

Extended-response question

1. The effects of inflation in Venezuela have been overwhelmingly negative. D benefits of inflation (you should explain at least three). Are there any situat rate can be good for the economy?

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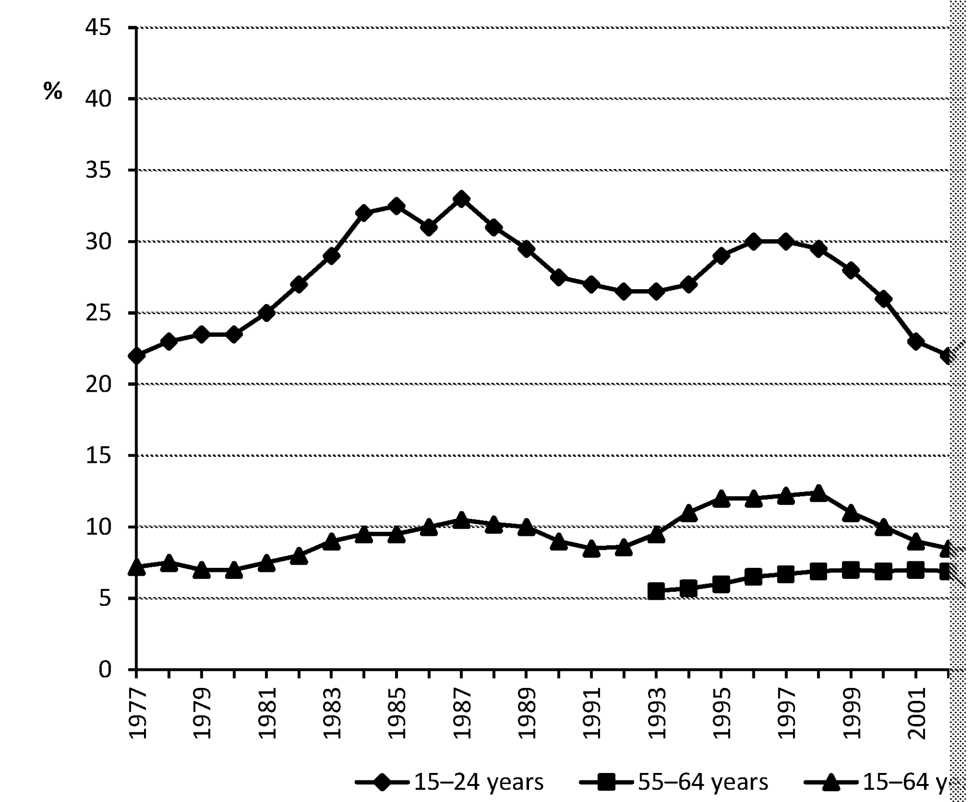
Youth unemployment in Ita

This case study requires knowledge of Section 4.1 – Internatio
There is a particular focus on unemployment, so this case study could also be

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 2013. 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 shows, when Italy's unemployment rate is broken down by age, the result

Figure 1: Unemployment Rates



Source: 'No Country for Young People? Youth labou

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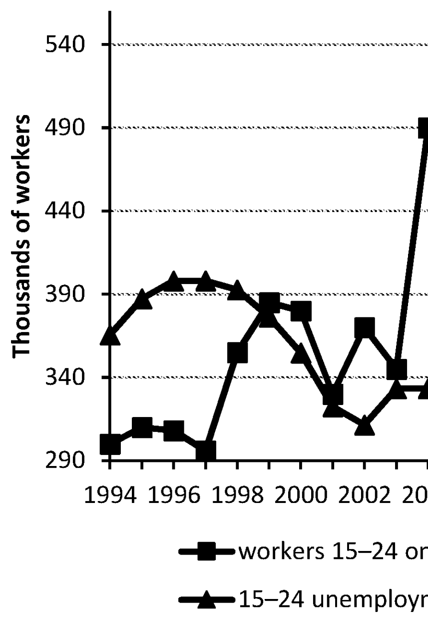
Research conducted by the Centre for Economic Policy Research (CEPR) s
explanations for the rise in youth unemployment rate:

1. The system protects existing, older workers, with young people typic temporary (fixed-term) contracts (see Figure 2).
2. More young people chose to go into higher education – this decreases young (since those in education don't count as part of the labour forc increases the unemployment rate, ceteris paribus.
3. Although there have been difficulties for low-skilled NEETs, (Not in E Training), there have also been difficulties for graduates. University r young people study to degree level, but the supply of available gradu economic terms, this is referred to as structural unemployment.

Figure 2: Temporary Contracts and



Source: 'No Country for Young People? Youth labo

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–

Using data from Figure 2:

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

Test your knowledge...

1. One of the reasons for the rise in youth unemployment was that more youn study, rather than participating in the labour force. Explain how this leads t 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. should also consider cases where unemployment may not be a concern in t

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Brexit and trading blocs

This case study requires knowledge of Section 4.1.5 – trad
Note: this was written before the EU referendum in Jun

Trading blocs are an important feature of the modern world economy. So
today include:

- ASEAN (Association of South East Asian Nations).
- APEC (Asia-Pacific Economic Cooperation forum – has some cross-ov
- NAFTA (North American Free Trade Agreement – consisting of the U
- And, largest of all, the EU (European Union – currently at 28 member
  monetary union – the Eurozone).

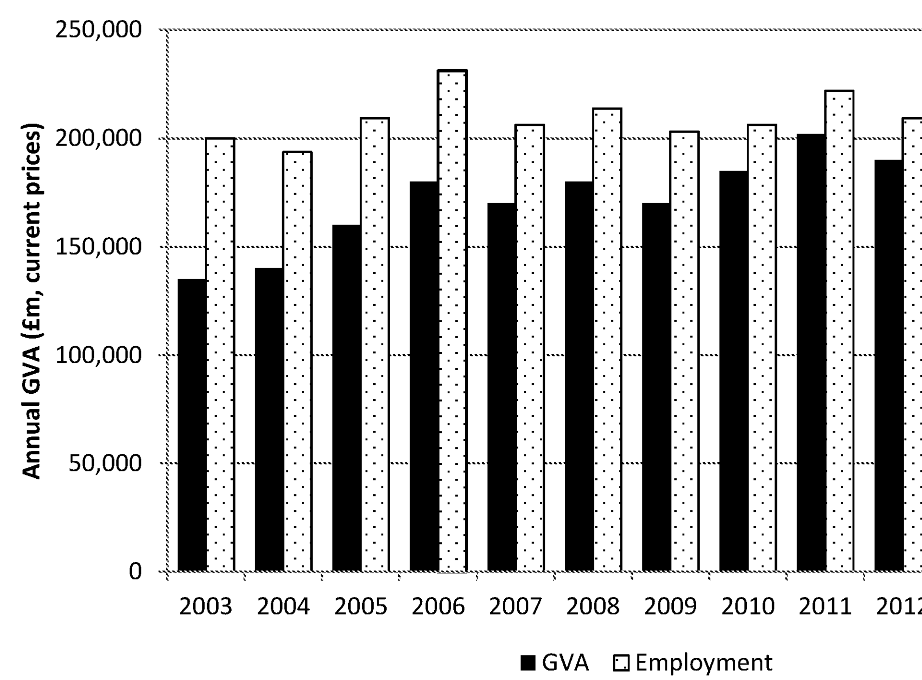
The basic idea of a trading bloc is to reduce trade barriers between particip
members to benefit from free trade. In 2016, the UK faced the important r
whether to stay in or leave the EU ('Brexit').

Supporters of Brexit (often called Eurosceptics), argue that leaving the EU
costs and free UK businesses from unnecessary regulations. Crucially, the
able to retain its trade links with Europe, and possibly improve their trade
world. There are also a number of non-economic reasons why they are in
relating to retaining greater control of the legal system and migration.

On the other hand, supporters of the 'yes' campaign (pro-EU), particularly
international links, argue that the UK would lose out on trade with the res
single market allows greater potential for economies of scale and lowers b
Furthermore, intra-EU financial transactions are less costly, and the harmo
increases trade and protects consumers.

The impact on the UK of being part of the EU has been researched extensi
of the positive economic effects in terms of employment and GVA (gross v
added is a similar measure to GDP.

Figure 1: Contribution of UK exports (to the EU) to the UK economy (GV



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The 2014 estimate of GVA indicates that the EU export market, at around £187 billion, accounts for about 10% of UK GDP. Similarly, over three million jobs are linked to the EU (around 10% of the total). The EU is the UK's largest export market (around 45% of total exports), and the UK also receives just over 50% of its imports from the EU. It is undeniable, therefore, that the presence of the EU is vitally important to the UK economy.

However, these findings must be interpreted carefully: they do not account for the fact that the UK would still trade with the EU even if it weren't part of the assume that all of these benefits would be lost if we left the EU. Perhaps we wo with the EU member states from outside of the trading bloc, since these countri (arguably) share many of our cultural values.

Analysing the likely effect of Brexit on the UK economy is much trickier than ana membership, because there are so many more uncertain factors. It could depen manages to leave in the event of Brexit, for example. Indeed, the uncertainty ov Brexit is a common argument put forward by EU supporters.

It is generally agreed that the UK's decision to stay out of a monetary union was that beset the Eurozone during the financial crisis. It is less clear whether a pote or not, particularly since there are so many competing political interests at stake

Use the data

1. From the passage, identify one economic argument in favour of staying in t argument in favour of leaving the EU.
2. Describe the trend in employment since 2011 shown in Figure 1, and give o

Test your knowledge…

1. Define the term 'customs union'.
2. The economic benefits of free-trade areas are fairly clear. What about the d two.

Extended-response question

1. With reference to the Eurozone, discuss the costs and benefits of monetary

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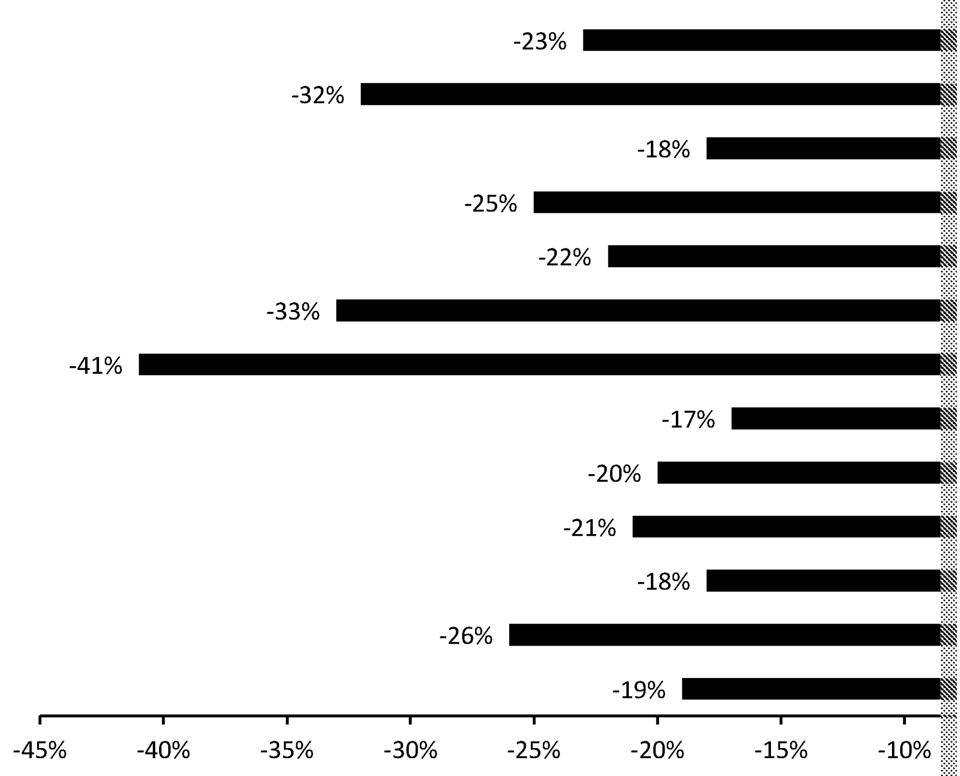
Subtle protectionism

This case study requires knowledge of Section 4.1.6 – restrictio

To what extent is protectionism a thing of the past? With the rise of huge international trading blocs, it seems that use of standard protectionist instruments such as tariffs, quotas, domestic subsidies, etc. has dwindled over time.

After the Great Depression of 1929, one of the key barriers to growth was the rise of protectionism, as governments scrambled to defend domestic employment, or retaliate against foreign protectionism. It is estimated that protectionist policies contributed to 25% of the trade collapse in the US after the Great Depression. After the Financial Crisis of 2008, protectionism also rose (e.g. tariffs by Russia, subsidies for domestic car manufacturers in several countries), but to a lesser extent. This is partially due to the influence of the WTO, but als acceptance of the virtues of free trade.

Figure 1: Collapse of trade in the financial crisis (selected countries)



Source: CEPR. 'The collapse of global trade, murky protectionism, and

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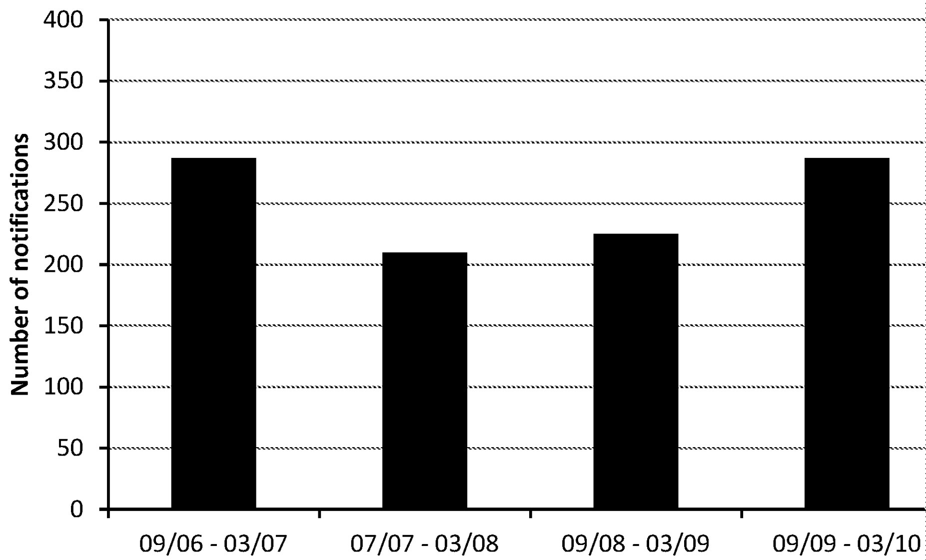
However, there has been a notable rise in more subtle, 'murky' types of pr
barriers) in a wide range of countries, most notably in Russia. These meas
quantify, and less obviously protectionist. Examples of these measures in

- Stricter licensing requirements for imports (Argentina)
- Higher standards for import products (e.g. China – see Figure 2)
- Only allowing certain goods through certain ports (Indonesia)
- Anti-dumping (USA – this is a charge on imports of goods that are be low)
- Bailouts of sectors such as banking (e.g. UK). The initial objective of p to the economy may have been replaced by the incentive to stimulate
- Industrial policies that effectively amount to export subsidies. (Brazil that fit this description: such as requiring foreign-owned car manufac meet tough efficiency standards and innovation targets.)
- Various types of export restrictions

Figure 2 – SPS notifications by G20 economies (2006–11)



Note SPS stands for 'sanitary and phytosanitary measures' – the idea is to prevent unsafe go

These covert types of protectionism are difficult for the WTO to police eff
many different guises. Their presence seems to suggest that the age of pro

Use the data

1. Explain why a country may wish to restrict exports.
2. Explain why the trend in SPS notifications shown in Figure 2 might have occ

Test your knowledge…

1. What is the difference between a quota and a tariff?
2. Suppose Country A imposes tariffs on the imports of Country B. Why might hurt as a result?
3. Illustrate the effect of a tariff using a diagram. Identify tariff revenue, dead of imports.

Extended-response question

1. The UK imports and exports large numbers of cars. Discuss the effect on ag UK of imposing a tariff on imported cars.

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The economics of inequali

This case study requires knowledge of Section 4.2 – poverty a

Inequality is a hot topic in economics at the moment. In 2014, French economist Thomas Piketty released the results of an extensive study on the changing pattern of income and wealth inequality in the West over time (the book is called *Capital in the 21st Century*). This provoked a flurry of intense debate in economics about the causes and consequences of inequality.

Piketty's main theory is that those who have large wealth can increase wealth faster than the average rate of economic growth in society. He warns that, if unchecked, this will lead to an undesirable concentration of wealth in the hands of a small elite, at levels not seen since the eighteenth and nineteenth centuries. As such, more effe essential.

Although there are some minor contentions with Piketty's data, the overa in the West is generally accepted. However, not everyone agrees with Pik of inequality.

One argument is that technological change is the driving force behind ine as low-skilled work is ever more easily replaced with machinery, the wag low-skilled workers widens, leading to inequality. Workers who are repla and the few who own the machines or are skilled enough to complement is reminiscent of Keynes' idea that one day, technology would advance to would be limited to a few hours a day: an 'age of leisure' (although he did of this for inequality!).

An alternative theory is that demographic change is the key factor. In the twenty-first centuries, the size of the working age population in advanced Combined with the reintroduction of ex-communist countries (such as Ch supply of labour was very high indeed, leading to lower wages. Since the return to labour, inequality grew.

Some argue that this trend will now reverse as population age and fertilit scarcer and wages will rise again. According to this viewpoint, Piketty's g unnecessary.

Figure 1 shows historical UK data on inequality. The 'dip' in measures of twentieth century is generally explained by the effects of World War II an redistribution by the government (not just in terms of taxes: the data in th upward trend since the late 1970s indicates that we may be drifting back t inequality levels, but economists are in disagreement about whether the tr

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Figure 1

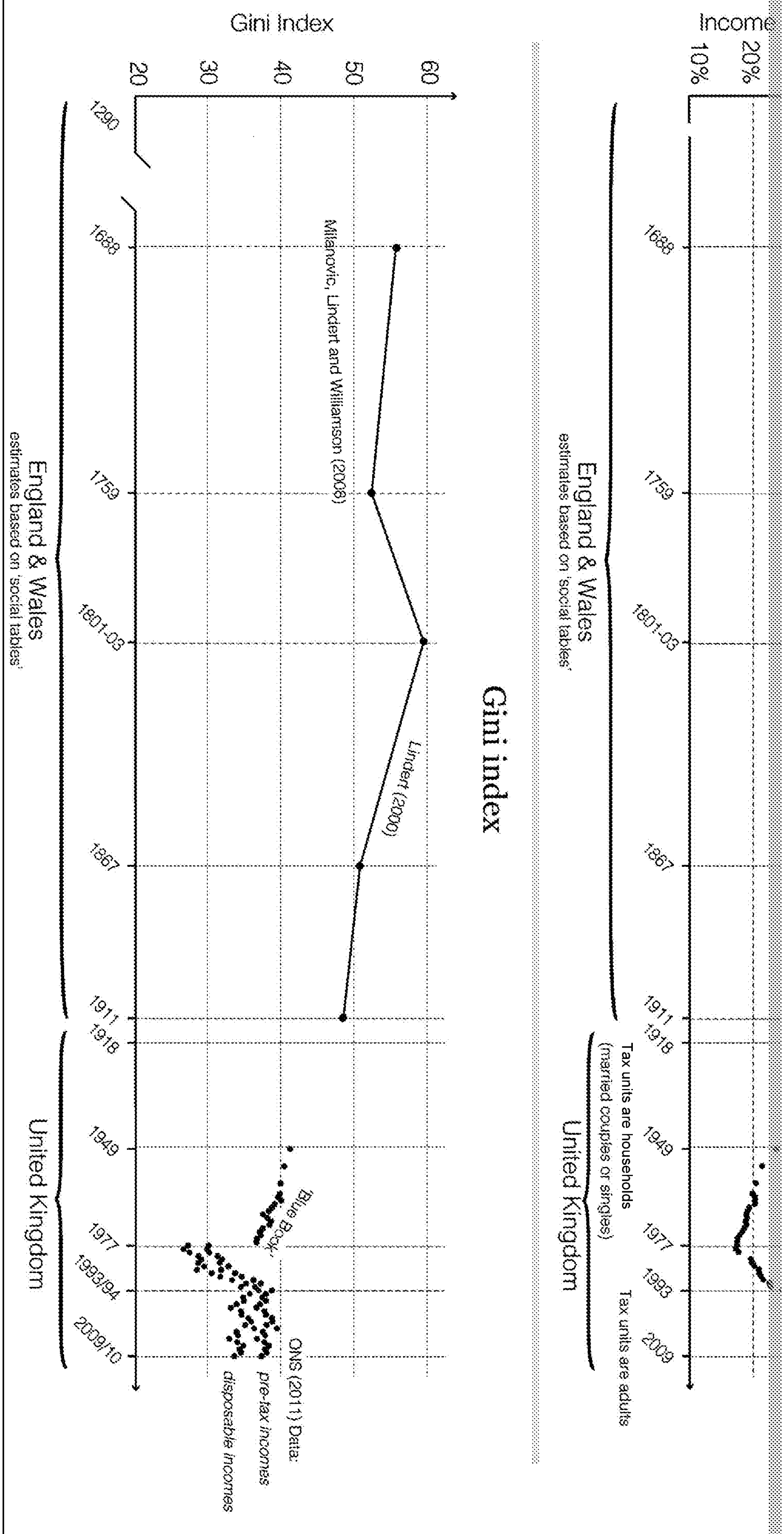

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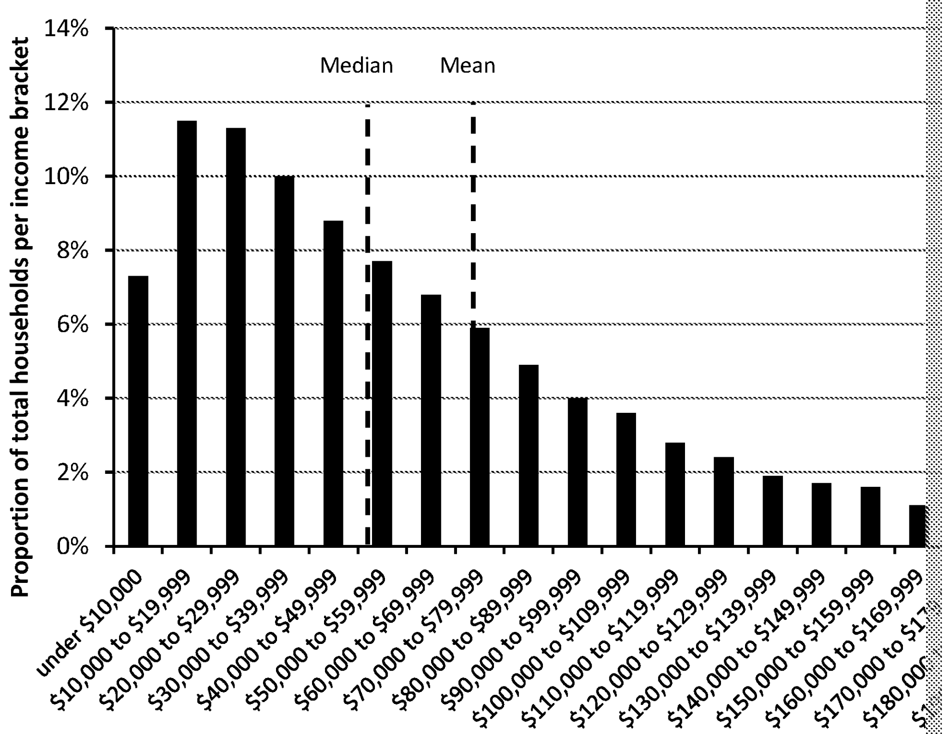
Figure 2: Household income distribution in the USA, 2012 – Max Roser



Note: You can find the source o
http://ourworldindata.org/data/growth-and-dis

Figure 3

Country	USA	Germany	Brazil	Haiti
Gini Index	41.1	30.1	52.7	60.8

Use the data

1. Look at the first panel in Figure 1 (with Income Share of Top 5% on the y-axi of inequality?
2. *Looking at Figure 2*:
   (a) What does this graph suggest about inequality in the US?
   (b) Sketch how you would expect the graph to look for a more equal socie
   (c) What would the graph look like for a perfectly unequal society?
   (d) What would the graph look like for a perfectly equal society?
3. Look at the second panel in Figure 1 (with Gini index on the y-axis). Describ 1949.

Test your knowledge…

1. Income inequality and wealth inequality are two separate but related conce links there might be between them?
2. Why would looking at the Lorenz curve for a country be more informative t coefficient?

Extended-response question

1. Look at Figure 3. Based on this data, and your own knowledge, discuss the economic development and inequality.

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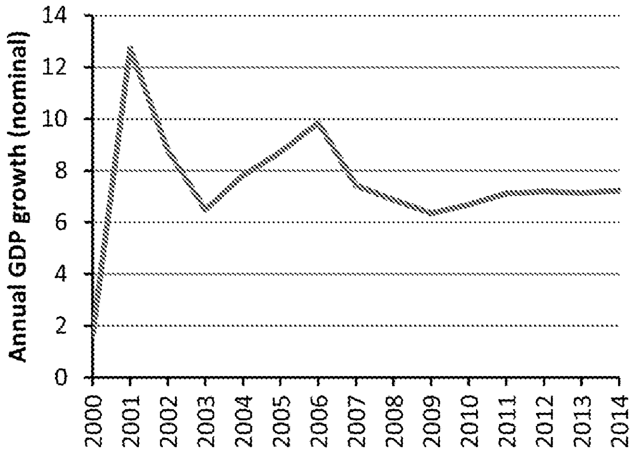
Mozambique – an African li

This case study requires knowledge of Section 4.4 – emerging and d

Figure 1: Mozambique's GDP growth 2000–2014



Figures are in constant 2005 US$

Source: World Bank.

African economie
in the media – for
perception of Afri
under-developed
However, there a
number of Africa
footsteps of the A
economic growth
among these stell
Having shed its c
a 16-year civil wa
Mozambique's ec
impressive.

Mozambique's hu
(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 in

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

Despite all this, there are concerns that this surge in economic growth is n
development. Figure 2 shows the components of the HDI index for Moza
disappointing 180th out of 188:

Figure 2

Country	HDI value (2014)	HDI rank (out of 188)	Life expectancy at birth	Expected years of schooling	M
Mozambique	0.416	180	55.1	9.3	
India	0.609	130	68	11.7	
UK	0.907	14	80.7	16.2	

Health dimension　　Education dimen

Note: 'Expected years of schooling' is for children entering school age, 'mean years of sch

So

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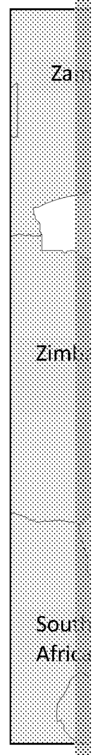
One of the big concerns is that poverty rates (one of the key dimensions of economic development) are still high, with over half of the 25 million people in poverty. If the gains from economic growth do not trickle down into all parts of society, Mozambique's success may be short-lived. African history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

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 a
   (a) GNI (rather than GDP)?
   (b) per capita?
   (c) PPP?
3. In Figure 2, what does the difference between the mean years of schooling 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 such as Mozambique.

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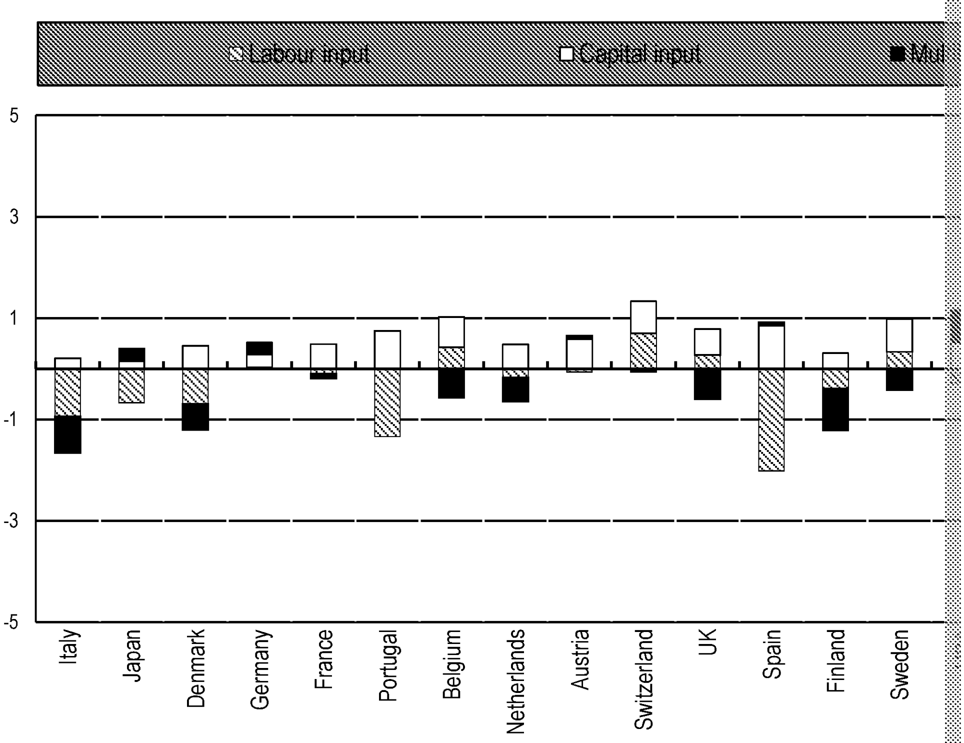
Productivity – the key to long-run

This case study requires knowledge of Section 4.3.3 – strategies influencing gro
particular focus on aggregate supply, so this case study could be used j

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 Devel of predominantly high-income countries.

Figure 1: Contributions to GDP growth: Total economy, annual percen (2007–2013)



Source: OECD Compendium

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

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

Historically, industrialisation is seen as a major catalyst for productivity g Revolution is considered one of the primary reasons for the economic asce 1 in Case Study 1). This is why some models of economic development (s great value on having a strong, urban economic hub in an economy.

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

Some economists are concerned that overall productivity growth has been despite strong growth in the manufacturing sector (in the UK, it's estimate the production of transport equipment such as cars and planes increased b productivity is so important for long-run growth, it should certainly be m coming years.

Use the data

1. *Using the data in Figure 1*:
   (a) Which country gained most from increased capital input?
   (b) Which country suffered the worst loss in multifactor productivity?
   (c) Which of the three factors has contributed most to GDP growth on ave
   (d) By roughly how much did Spain's GDP decrease as a result of decreased
   (e) What was Ireland's annual GDP growth rate, according to these figures
2. Can you think of a link between Spain's loss of GDP due to a decrease in lab macroeconomic objectives?

Test your knowledge…

1. Show the likely effect of a large decrease in education spending on a classic
2. Aside from productivity and education, state two factors that influence long

Extended-response question

1. Discuss the costs and benefits of a government policy to increase productivi investing in better education.

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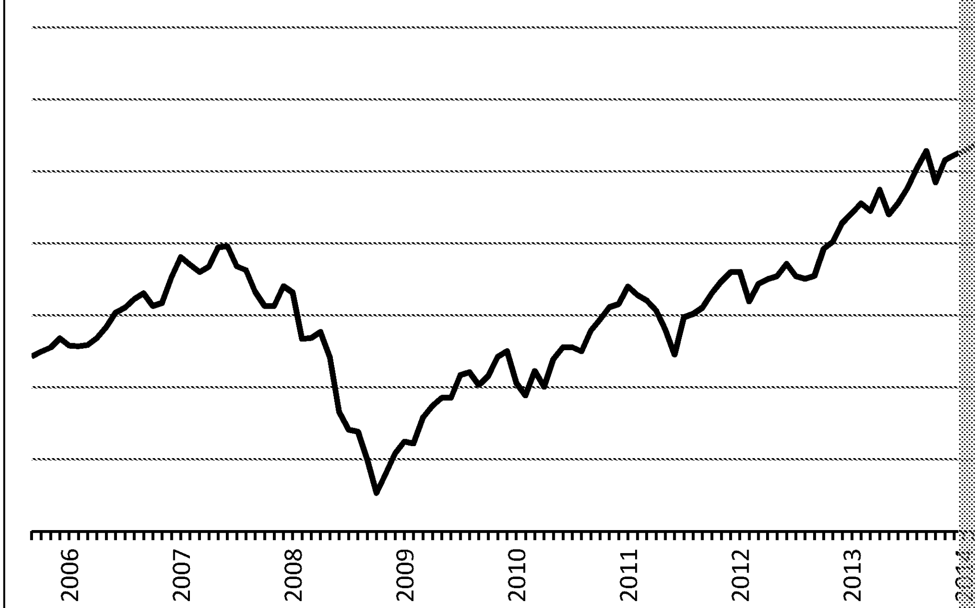
Market failure in the financial s

This case study requires knowledge of Section 4.4 – the fina

The Global Financial Crisis of 2008 is a rich opportunity for study in economics, particularly when it comes to the financial sector. Michael Lewis's book on the subject, *The Big Short*, was adapted into a film in 2016 – a rare case where an economic issue becomes a mainstream hit!

As we know, the global economy experienced a massive downturn in the closing months of 2008. Figure 1 shows the precipitous fall in the Dow Jones Industrial Average, an indicator of the health of the US stock market (and the world economy in general).

Figure 1: Dow Jones Industrial Average (2006–2016)



So, what were the specific market failures that led to this crash? Arguably had its roots in asymmetric information (although some may call it reckles exuberance'). In the US, the early 2000s were years of unparalleled prospe financial system was high. As such, some banks began extending mortga homeowners who were considered 'sub-prime' (that is, unlikely to pay it b

Extending these risky loans was encouraged by the development of variou such as 'credit default swaps' (CDSs) and 'collateralised debt obligations' of risk between different parties. The problem with these products was th them understood what they really meant, or how risky they actually were information comes in). As such, when the credit bubble burst, banks and much they actually stood to lose (this is where terms such as 'toxic assets' triggering a panic and the ensuing financial meltdown.

The crisis was also characterised by excessive speculation, and the creatio (particularly in housing). Almost all banks were very highly 'leveraged' (

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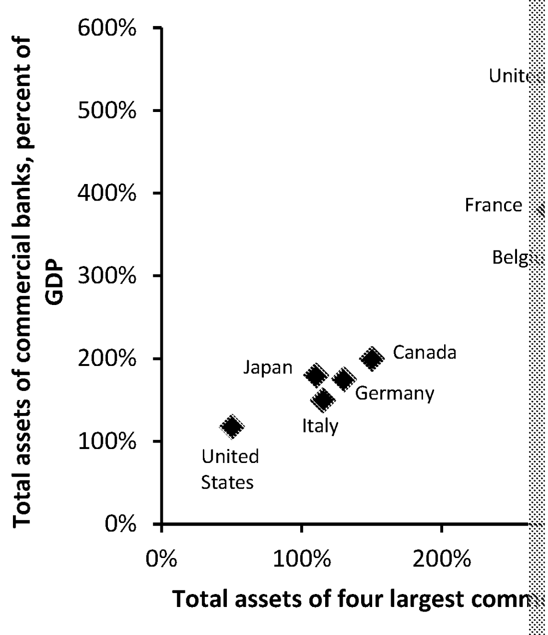
loans far exceeded the value of their reserve funds), so an unexpected dec
was devastating. Since the crash, the rules on the amount of reserves bank
tightened up.

Another aspect of market failure that came in after the crisis is moral haza
out the failing banks because they hoped that it would prevent even more
event of the banks going under. If true free-market economics had prevai
excessive risks would simply have failed. But since they were bailed out,
continue taking risks in the future (knowing that they will probably be ba
example of moral hazard.

Figure 2



Source:
See: *https://www.treasury.gov/resource-center/data-chart-center/Doc*

All the market failures mentioned so far are unfortunate, but legal. In some cases, markets were illegally rigged to gain some advantage. The most notorious case of this was in the UK with the Libor rigging scandal. Libor is the London Inter-Bank Offered Rate (a benchmark rate for lending between financial institutions). When the financial crisis started, the Libor rate increased (since it was deemed riskier to lend between banks). Some bankers lied about the rates
at which they could borrow, effectively rigging the rate to be more favour
another distortion in the market, exacerbating future losses.

Hopefully economists and policymakers can learn from this episode in wo
severe crises from occurring again.

Use the data

1. Does Figure 2 suggest that the UK was more or less exposed to a financial cr
2. Estimate how much the Dow Jones Industrial Average declined from its pea
point.
3. Do you think governments should regulate financial institutions more or les
reasons for your answer.

Test your knowledge…

1. Name two basic functions of the financial market.
2. State one other type of market failure not mentioned in the passage, and h
financial crisis.

Extended-response question

1. Examine the role of the central bank in the UK financial sector.

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Canada's economic policie

This case study requires knowledge of Section 4.5 – role of the state i

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

Quick facts	Canada	
Population:	35 million	
Area:	9,984,670 km² (Second largest in the world)	
GDP per capita (nominal):	$50,000	
Government debt (% GDP), 2014:	86.5	

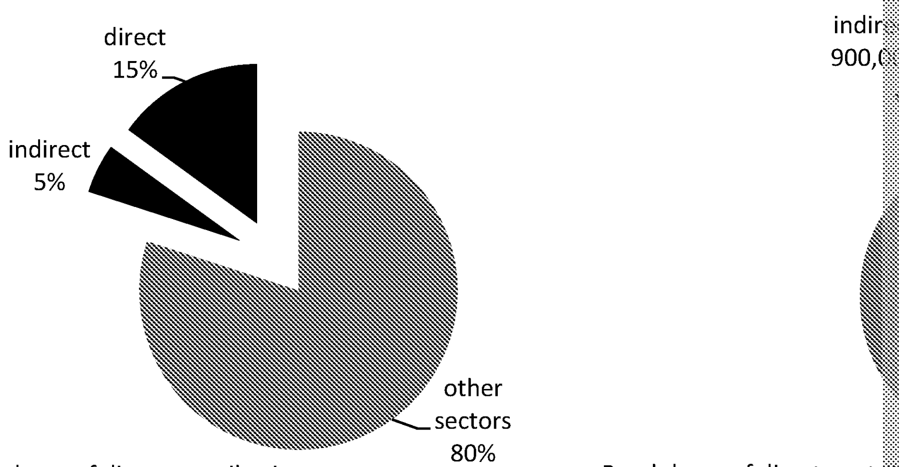
The rationale for infrastructure spending is that it increases aggregate den the short term (as the government pays the wages of new employees) and boosts aggregate supply in the long term (as the economy works more efficiently). Trudeau hopes to benefit from low interest rates to fund a $60 (Canadian dollars) spending plan over 10 years, channelled into areas incl public transport, green projects and affordable housing ('social infrastruct Around 30–35% of this spending is expected to return to the government v higher tax revenues, as the spending induces more economic activity.

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

Figure 1:

Contribution of natural resources to Nominal GDP (%), 2014

Contribution of natural



Breakdown of direct contributions:
10% = Energy
4% = Minerals & Metals
1% = Forestry

Breakdown of direct contr
300,000 = Energy
400,000 = Minerals & Met
200,000 = Forestry

Source: Natural Resources Canada estimates (July

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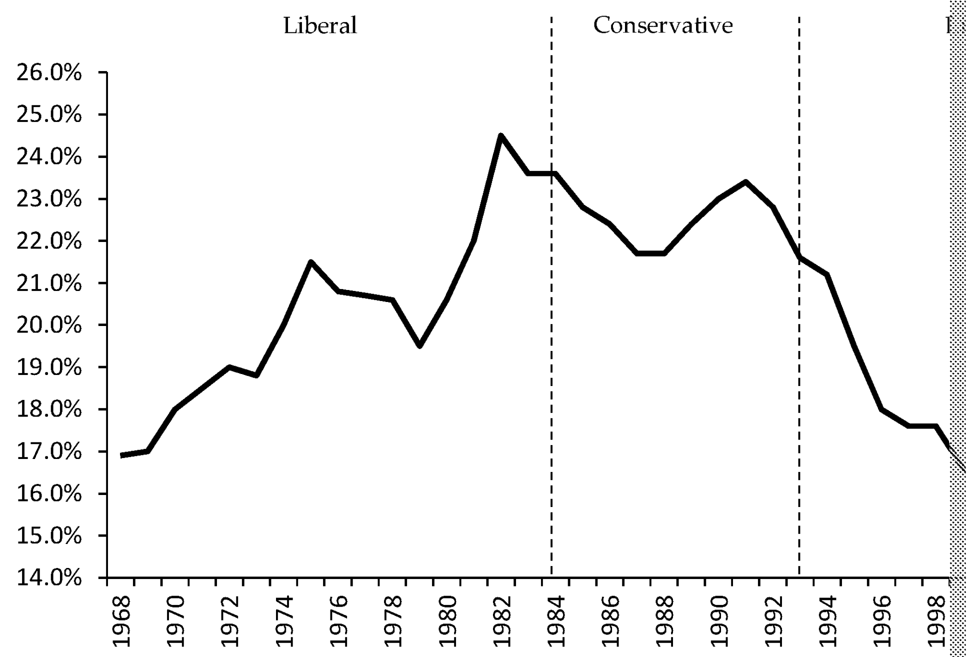
Figure 2 shows the pattern of government spending as a share of total GD
where different governments (Liberal or Conservative) had control. As of
changed back to Liberal.

Figure 2: public spending as a share of GDP by government



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

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 shown in Figure 2. What would you expect to happen to t
   infrastructure plan described in the passage goes ahead?
2. Based on the information in the passage, show the effect of an increase in i
   AD/AS diagram.

Extended-response question

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

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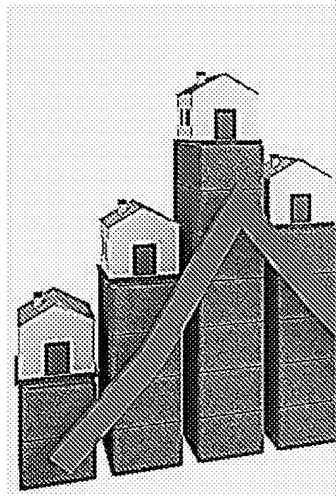
Ireland's housing market bub

This case study requires knowledge of Section 4.5 – role of the state i

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 crash 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 econo
rich opportunities for Irish banks t
low rates (particularly following Ir
There was very heavy investment
because this sector had never crash
confidence would prove to be misp
of investing, that investors should
range of assets, seems to have bee

In terms of the fiscal policy, the government adopted a 'pro-cyclical' appr
increased their spending in the boom period, as well as cutting taxes to att
proportion of these taxes were linked to the property sector). This left the
vulnerable to a bursting of the property sector bubble, in spite of warning
OECD. Ultimately, this meant that the government had next to no breathi
fiscal policy when the crisis hit.

Furthermore, regulators of the banking industry seem to have failed to pi
warning signs of an impending crash. This is particularly noteworthy sin
was not nearly as complex or opaque as some other advanced economies (
extremely complicated financial products or 'derivatives' was flourishing)
systems also seem to have failed, permitting a very risky and unstable fin

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

Figure 1: house prices against average income (long-term average = 10

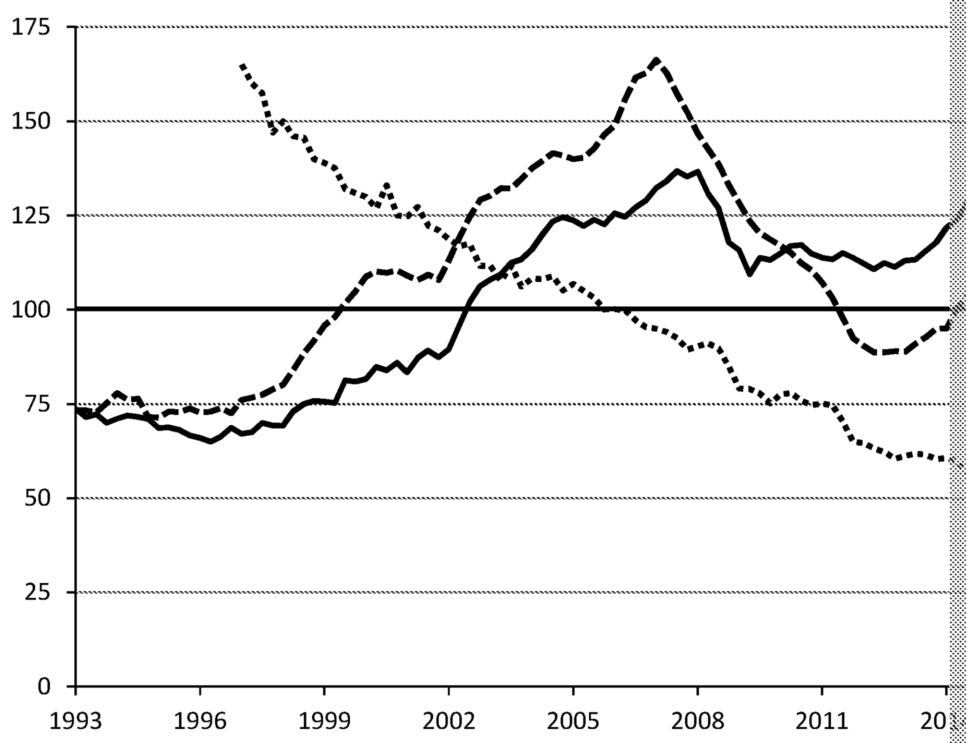
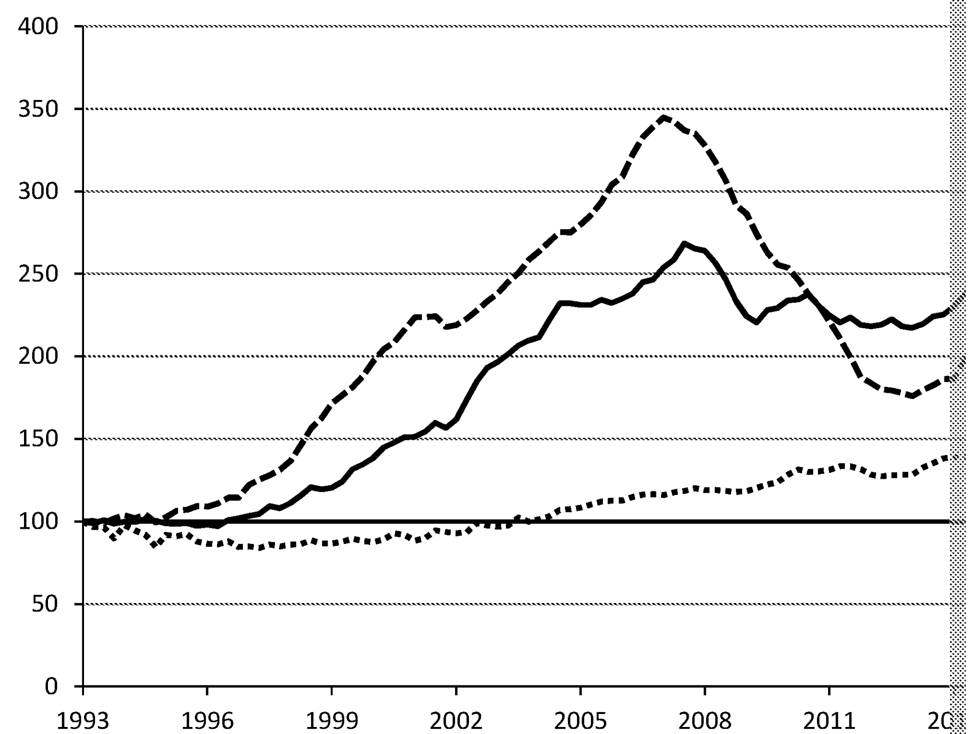


Figure 2: prices in real terms (base year = 1993)



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. Hopefull
experience will prevent such disastrous financial crises from occurring ag

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Use the data

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

Test your knowledge…

1. (a) Looking at Figure 2, describe the trend in house prices in Ireland over t
   (b) How many times greater were prices in Ireland in Q1 2007 than Q1 19
2. Explain whether Ireland's fiscal policy measures described in the extract wo or a budget deficit in the short term.

Extended-response question

1. One of the key features of Ireland's economic boom (and subsequent bust) Using an AD/AS diagram, discuss the effectiveness of deregulation as a supp *(Note: your answer does not need to include any knowledge of different typ*

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Footloose TNCs: Google vs H

This case study requires knowledge of Section 4.5.4 c) – measures to control

One of the features of globalisation has been the rise of transnational com
of consumers and often reaping vast profits.

Figure 1: World's largest companies (2015)

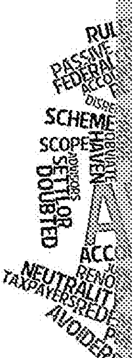
Global Rank	Company	Country	Market value* ($bn)	
1	Apple	US	724.8	
2	Exxon Mobil	US	356.5	
3	Berkshire Hathaway	US	356.5	
4	Google	US	345.8	
5	Microsoft	US	333.5	
6	PetroChina	China	329.7	
12	Wal-Mart Stores	US	265.1	
14	Nestlé	Switzerland	243.7	
15	Toyota Motor	Japan	238.9	A
19	Samsung Electronics	South Korea	214.0	L
26	Royal Dutch Shell	UK	192.1	
29	Facebook	US	183.9	
30	Walt Disney	US	178.3	
32	Coca-Cola	US	177.1	
35	HSBC	UK	164.2	

**Market value is calculated by the number of shares issued multiplied by the share price (market c*

One the one hand, TNCs have unparalleled access to funding and econom
provide goods and services to global consumers on a scale that would hav
decades ago. On the other hand, the global nature and power of TNCs ha
governments, particularly when it comes to collecting taxes.

The basic problem is this: governments want to receive their fair share of t
but companies have a financial incentive to minimise their tax liability. If
to *avoid* tax (which is perfectly legal – *evading* tax is illegal), such as registe
funnelling profits through a tax haven (e.g. Bermuda, Netherlands, Irelan
so. Similarly, a 'footloose' TNC could choose to set up shop in another co
accommodative tax system. The upshot is that in the absence of internatio
tax rates, individual governments will struggle to control TNCs.

In early 2016, Google, the tech giant, agreed to pay £130m to the UK's HMRC, including backdated taxes from up to a decade ago that HMRC argued the company owed. Although £130m may sound like a lot of money and it was initially hailed as a success, there has been a furore in Parliament that this isn't nearly enough.



The figures are as follows: in the 18 months to June 2015, Google paid £46.2m in corporation tax. Over the same period it made $6.5bn in the UK in revenues. Even when you adjust the revenue figures to profit figures, which corporate tax is based on, this still seems very small.

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Some argue that looking at it this way isn't quite right: it assumes all that Google's UK workers alone, when in fact much of it is attributable to the w as their core US team). In this case, its tax liabilities are closer to the agree

The row over Google's taxes could be the start of a much bigger argument Other European countries such as France are intending to seek more tax fr Facebook's tax affairs are also being questioned by governments and activ Starbucks have already had their reputations somewhat tarnished by tax a

One of the broader issues is the regulation (or lack of regulation) of 'transf for trading goods between subsidiaries of the same company in different c manipulation of transfer pricing ('mispricing') is one of the ways in which international tax laws. The Google deal with the UK is thought to have be transfer pricing issue.

A spokesman for Google stated in the *Financial Times* that 'governments m authorities independently enforce the law and Google complies with the la true, but the outcome for taxpayers in countries such as the UK seems unf seen whether future international agreements will be reached to force com law, not just the letter.

Use the data

1. (a) Using the figures from the article, calculate Google's effective tax rate, were 26% of revenues (this is Google's global average profit margin), a £1 = $1.5.
   (b) If UK workers are only responsible for 20% of UK sales, how would you (Assuming that this is the way that the tax rates should be calculated.)
2. Which of the companies in Figure 1 generates the most market value per en
3. According to Figure 1, if the price of a single share in Microsoft is $50, how m in total?

Test your knowledge…

1. Which macroeconomic objective does fair taxation of TNCs help achieve?

Extended-response question

1. Discuss the effectiveness of increasing corporation tax to help reduce a bud

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Answers

Mark scheme for extended-response questions

10 marks

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

12 marks

		Knowledge (2), application (2) and analysis (4)
	0	No relevant answer given.
Level 1	1–2	A few concepts and examples may be identified correctly, but may Absence of thought behind the causes and effects.
Level 2	3–5	Some knowledge of economic concepts is shown, partially linked t reasoning skills, but may focus too much on one side of an argume
Level 3	6–8	Knowledge of the economic concepts is accurate. Links to the que examples. Analysis is well reasoned, logical and appropriate for th
		Evaluation (4)
	0	No evaluation.
Level 1	1–2	Limited attempt at evaluation – may be only loosely related to the reasoning and evidence.
Level 2	3–4	Accurate, balanced evaluative comments are made, supporting a r directly 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 thought behind the causes and effects.
Level 2	4–6	Some knowledge of economic concepts is shown, partially linked t reasoning skills, but may focus too much on one side of an argume
Level 3	7–9	Knowledge of the economic concepts is very accurate. Links to the examples. Analysis is well reasoned and logical, and appropriate f
		Evaluation (6)
	0	No evaluation.
Level 1	1–2	Limited attempt at evaluation – may be only loosely related to the reasoning.
Level 2	3–4	Clear evidence of evaluative comments, though they may be unfai argument. Reasoning / supporting evidence are provided may be
Level 3	5–6	Accurate, balanced evaluative comments are made, supporting a r directly to the question.

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25 marks

Knowledge (4), application (4) and analysis (8)		
	0	No relevant answer given.
Level 1	1–4	A few concepts may be identified correctly, but inconsistently, and thought behind the causes and effects.
Level 2	5–8	Some knowledge of economic concepts is shown, partially linked t incomplete or basic reasoning skills.
Level 3	9–12	Good knowledge of the relevant economic concepts is displayed, l evidence to support the main arguments. Analysis is well develop side of an argument.
Level 4	13–16	Knowledge of the economic concepts is very accurate. Links to the examples. Analysis is well reasoned and logical, and appropriate f
Evaluation (6)		
	0	No evaluation.
Level 1	1–3	Limited attempt at evaluation – may be only loosely related to the reasoning.
Level 2	4–6	Clear evidence of evaluative comments, though they may be unfai argument. Reasoning / supporting evidence provided may be inco
Level 3	7–9	Accurate, balanced evaluative comments are made, supporting a r directly to the question.

Case Study 1: World economic superpowers: is the USA's reign over?

Use the data

1. Allow 5% either way
   (a) 30%
   (b) 40%
   (c) 10%
   (d) 25%

2. (a) Accept anything between 2% and 3%.
   (b) Accept anything between 10% and 11%.
   (c) If USA's growth was 2.5%, then in 15 years US GDP = 15 * 1.025^15 = $21.7tn. in 15 years China GDP = 6*1.105^15 = $26.8tn. China's GDP is larger (should g values given in (a) and (b)).

Test your knowledge…

1. (a) GDP per capita is GDP (the total value of output in an economy in a given time population size. (1)
   (b) Since China's population is so large, switching to GDP per capita figures means does India). (1)

2. (a) The idea behind PPP is to adjust for the costs of living in different countries by of different currencies. (1)
   (b) In the USA, $100 wouldn't buy as much as it would in China. When we accou appears relatively larger than before. If the Figure 3 figures were not PPP adju considerably larger than China's. (1)

3. Possible answers include:
   - market reforms
   - low unit labour costs OR international competitiveness (not both)
   - high levels of saving
   - currency devaluation
   - trade liberalisation
   - high levels of inves
   - investment in forei

   1 mark for each (max of 3*)*

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Extended-response question

1. GDP measures the total value of output in an economy. When you adjust for popu standards (PPP) this can give a good impression of the *size* of an economy. Howeve the *success* of different economies, many important factors are omitted:
   - **Inequality**. Even per capita GDP figures give no indication of the distribution c experience rapid economic growth, but this would not benefit the general pop to a small elite.
   - **Negative externalities**. GDP only measures the total value of output, it doesn 'bad' output. Economic growth may come hand in hand with environmental c of land for commercial purposes.
   - **Happiness**. Having a higher average standard of living does not guarantee tha 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 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 dev that GDP does not account for the size of the 'black economy' (unrecorded or illicit greatly between countries.

Case Study 2: Venezuela's inflation problem

Use the data

1. (a) Peru
   (b) 1.7%
   (c) Correct answers include Mexico, Peru, Ecuador, Bolivia and Uruguay. By consi rate of inflation in each year than the last.

Test your knowledge

1. Inflation is the rate of change of (or a sustained increase in) the price level. (1)
2. (a) An increase in the money supply by the government / central bank. (1)
   (b) Causes of inflation are usually divided into 'demand-pull' and 'cost-push' facto include an increase in any of the components of AD (consumption, investment exports). Cost-push factors could include increases in wage costs or input cos the population loses confidence in the currency.

   1 mark for each identified factor (plus brief explanation, e.g. increase in consu to inflation)
3. One way to look at this is that high inflation is expected to lead to a depreciation of domestic goods become less competitive (fall in demand for the currency), and fore (increase in supply of the currency): this leads to a fall in the exchange rate. (1)
   In a similar way, a depreciation of the currency is expected to lead to inflation, beca expensive (imported inflation). (1)

   The relationship between inflation and exchange rates is complex, because both de should at least be aware that high inflation is associated with depreciation.

Extended-response question

1. **Costs** – In a case such as Venezuela's where inflation is very high, the costs definite that could be discussed include:
   - menu costs (mentioned in the text)
   - shoe-leather costs
   - uncertainty in markets
   - loss of international competitiveness (although this may be offset by a fall in t
   - Redistribution of income (e.g. savers and those on fixed incomes lose out)
   - Loss of purchasing power for consumers (particularly at high levels of inflation

   Benefits – However, when inflation is controlled and stable, it could be argued that argument is that it erodes the cost of repaying debts – so it could be beneficial to c (e.g. if I owe you £100, then there is high inflation, then when I pay you back £100 i could be argued that low, but positive inflation helps wages to adjust, encourages s the risk of deflation (which can be very damaging).
   For top marks, at least one benefit of inflation must be mentioned in addition to se

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Case Study 3: Youth unemployment in Italy

Use the data

1. The 55–64 age group data shows a slight rise in the unemployment rate between 2
around 6%). The 15–24 age group also shows an increase, but a far more dramatic
low of around 20% in 2007 to 40% by 2013.

2. (a) An increase of around 210,000 (accept 10,000 either way).
   (b) After a small increase in 1994, unemployment fell steadily until 2002. The nex
   percentage points, before falling to a low of 20% in 2007. The overall trend w

3. There are any number of possible solutions you could come up with, but virtually al
drawback. Example policies and drawbacks you might come up with could include:
   - Investing in education and training – long-term solution only (has an opportun
   well (the article states that more young people are going to university, but the
   - Providing incentives/legislation to encourage employers to employ young peo
   politically).
   - Investing in existing/new industries to expand employment opportunities (onl
   guaranteed in these sectors, very long-term solution).
   - Taxing older workers, who benefit from employment protection, to fund sche
   (politically unpopular).

Test your knowledge

1. Unemployment rate = number of unemployed people / total labour force. (1)
In this case, the total labour force has decreased, so the unemployment rate increa

2. The text already mentioned structural unemployment, so possible correct answers
seasonal unemployment, demand deficiency / cyclical unemployment, and unempl

1 mark for each identified cause.

Extended-response question

1. The answer should focus on both the economic and social consequences of unemp
Social consequences include crime, health problems, lower living standards (leading
problems, loss of skills, or any similar justified outcome.

   The main economic consequences include lower economic growth (since less is bei
   to the lower economic activity), and a worsening government budget deficit (since
   increase, and tax revenues fall). The passage also mentions the possibility of a brai

   To get higher marks, these consequences (particularly the economic ones) must be
   simply state them.

   For evaluation points, it could be mentioned that some types of unemployment are
   the long term, such as frictional unemployment (which is inherently temporary), se
   temporary) and possibly cyclical unemployment (so long as the economic downturn
   to note that in the case of Italy, where unemployment (and particularly youth unem
   unemployment cannot be as easily ignored.

Case Study 4: Brexit and trading blocs

Use the data

1. Possible economic arguments in favour: higher GDP (or GVA), higher employment,
entry for firms, lower financial transaction costs, harmonisation of product standar
consumers.

   Possible economic arguments against: no membership costs, increased ability to fo
   economies, removal of unnecessary regulations for firms.

2. The contribution to UK employment of exports to the EU has fallen steadily since 20
around 3.15 million in 2014 (numbers don't need to be quoted). One possible reas
global economy following the financial crisis. A similar answer would be the ongoin
economies (e.g. Greece).

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Test your knowledge

1. A customs union is a free-trade agreement between countries (1) characterised by outside the customs union. (1) Note that a customs union is less integrated than a does not usually include free movement of goods and people (you don't need to st

2. Possible disadvantages could include:
   - Damaging for economies outside the free-trade area
   - Loss of industries / unemployment in certain domestic industries, as they are international stage (winners and losers)
   - Potential for excessive/inefficient bureaucracy to emerge (particularly around regulations)

   There are other general disadvantages of free trade in general you might mention (commodity, could be disastrous if the market crashes).

Extended-response question

1. Possible **benefits** include:
   - Lower transaction costs (no need to change currency)
   - Elimination of exchange rate uncertainty (which may hold back trade – particu
   - Transparency (price comparisons are easier)
   - Trade creation and job creation (mostly as a result of the other factors above) the context of a single market, not a monetary union): see Figure 1. You may trade may have been just as high outside the EU.

   Possible **costs** include:
   - Initial cost of changing currency
   - Loss of independent monetary policy (this is very important in the Eurozone. countries needed different levels of expansionary monetary policy: since the 'one size fits all' monetary policy caused problems for many countries.)
   - Loss of exchange rate flexibility (in the EU, some countries lost out because th decline, but the euro didn't decline as strongly as they would have liked due t such as Germany).
   - Asymmetric shocks (similar to the previous points: if one economy experience harder to formulate an appropriate policy response)

   In your answer you should talk about the conditions in which a monetary union wo participating economies are similar in nature) and when they would be unsuccessfu are very different).

Case Study 5: Subtle protectionism

Use the data

1. A country may wish to restrict the supply of exports if it believes it can generate hig supply low (and hence prices high). This is particularly effective for countries that h certain goods.

2. On the one hand, the increase may be because there was a legitimate rise in conce However, it could also be a back-door attempt to restrict imports without violating coincided with the financial crisis).

Test your knowledge

1. Tariffs are charges that affect the **prices** of particular imports (or exports) (1), wher **quantity** of imports/exports. (1)

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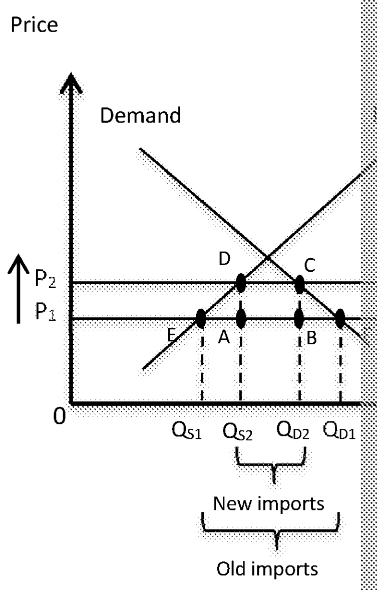
2. If Country A imposes tariffs on the exports of Country B, it is likely that Country B w on Country A's exports. (1) Therefore, exporting firms in Country A will suffer. (1) T retaliation.

3. Your diagram should show an upward shift in the world supply (which is perfectly elastic). (1) Price increases from P_1 to P_2, (1) and quantity demanded falls from Q_{D1} to Q_{D2}. (1) Previously, imports were Q_{D1} minus Q_{S1} (1), now they fall to Q_{D2} minus Q_{S2}. (1) Deadweight losses are shown by areas EAD and BFC. (1) Tariff revenue is the area ABCD. (1) One more mark for correct labelling of axes and demand/supply curves.



Extended-response question

1. Imposing a tariff on imported cars makes it more expensive to buy imported cars, and makes domestically produced cars relatively cheap. At a basic level this should reduce imports (since prices are higher), increasing the (X–M) component of AD. However, this depends on the price elasticity of demand for imported cars: if demand is highly inelastic, consumers will accept the higher prices which would lead to a fall in (X–M) (remember: X–M refers to the value, not the vol

   A tariff also influences the other components of AD. The government generates mo may allow it to increase its spending (and a rise in G contributes to AD).
   If consumers switch to domestically produced cars, this will support job creation in industry. This should lead to an increase in consumption (since these newly create workers).

   However, in your answer you should consider the effect of retaliation. If foreign co cars exported from the UK, this could negate the positive effect on domestic emplo AD).

Case Study 6: The economics of inequality

Use the data

1. This is not a perfect measure of inequality, because (a) it only measures the top 5% other groups, such as top 10% or top 1%), (b) it is pre-tax (the picture might change is accounted for) and (c) it only measures income (it ignores wealth, which is anoth

2. (a) The graph indicates that the US is an unequal society: a large proportion of th levels of income, below the mean. The fact that mean income is significantly g indicator that income is skewed towards the top end of the distribution.
   (b) This would probably look more like a bell curve / normal distribution curve, i.e clustered near the middle, and smaller proportions at the 'tails' (top and botto
   (c) In this case, one person/household would have all the wealth: so there would $250,000 category.
   (d) In this case, everyone would have exactly the same amount of income (the me going to 100% in the $70,000 to $79,999 category.

3. You should first recognise that a higher Gini index indicates higher inequality (you c The trend indicates a fall in inequality from 1949 to around 1977, followed by a ste onwards.

Test your knowledge

1. A country experiencing high income inequality is likely to also experience high weal income might be converted into savings (or wealth). (1)

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2. The Lorenz curve shows the precise distribution of income over each percentile of t coefficient is just the ratio of the two areas (one above and one below the Lorenz c

   Two countries could have different income distributions (Lorenz curves) but identic Lorenz curve gives a broader picture of income inequality than the Gini coefficient. Note: The Gini coefficient is known as a 'summary statistic' – it only contains a smal a useful tool for comparing different countries quickly.

Extended-response question

1. From Figure 3, you should recognise that the USA, Germany and Norway are highly Romania are somewhat developed, and Haiti is a low-developed country. The pictu development is, therefore, mixed: on the one hand, Brazil and Haiti are clearly muc Norway: this could indicate that inequality decreases as a country develops. You co might be the case, e.g. less corruption, more progressive tax system, etc.

   However, the USA is considerably more unequal than Romania, which contradicts t reasons why developed countries become more unequal, e.g. rate of return on wea rate (Piketty's argument), more free-market orientated government policies, tax av

   You can conclude that inequality increases with development or decreases with de unclear) as long as your reasoning is well supported.

Case Study 7: Mozambique – an African lion?

Use the data

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

Test your knowledge…

1. Other possible indicators could include: poverty rate, literacy rate, access to clean w child mortality, environmental sustainability (although these are often linked to the
2. Possible answers include: abundance of natural resources / international trade, enc economic policies, foreign investment.

Extended-response question

1. Your answer should note that having abundant natural resources can help boost ec development), but not in all cases (on this point you should mention the resource c may also note that economic growth does not guarantee economic development. Y factors that can improve development aside from having natural resources, e.g. edu good financial system, health, demographics, investment, savings and debt.

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

Case Study 8: Productivity – the key to long-run growth?

Use the data

1. (a) Australia
   (b) Finland
   (c) Capital input – 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 inpu net result is a GDP growth rate of around –1.4% (between –1% and –1.8% acce

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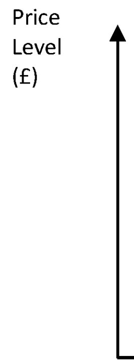
2. Spain has suffered from severe unemployment since the recession (as well as very l probably why the graph shows such a heavy loss in GDP from falling labour input.

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.

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 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 e
   - Economic growth would only occur if demand keeps up with supply
   - If everyone becomes better educated, it may be harder for people to find jobs supply of skilled jobs increases
   - Long time lag between starting the policy and seeing results: politicians may n reason

Case Study 9: Market failure in the financial sector

Use the data

1. Figure 2 suggests that the UK was more exposed to a financial crisis, since the total a proportion of GDP.
2. It fell from around 14,000 to around 7,000, a fall of 50% (accept (45–55%) or 7,000
3. Examples of arguments for **more** regulation (not exhaustive):
   - Prevent future crises
   - Protect consumers
   - More stable economic growth

   Examples of arguments for **less** regulation:
   - Free-market functions better without government interference
   - Banks should be allowed to fail so they make better decisions in the long run
   - Could enable more consumers to access credit (in the absence of any future cr

   There is no right answer to this question, it may be the case that there are specific a regulated.

Test your knowledge

1. Possible answers include: to facilitate saving, to facilitate lending, to facilitate the e provide markets for equities, currencies or commodities. 1 mark for each correct answ
2. Negative externalities are not mentioned. (1) In the case of the financial crisis, whe to risky customers, they do not consider the full social cost of this action (1) (which

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Extended-response question

1. The central bank (the Bank of England in the UK) has many different roles to play in
   - **Setting monetary policy** – the base interest rate set by the central bank influe financial sector. Furthermore, the central bank can provide liquidity to financ (one way of lending to banks to increase the money supply). This helps facilita and households.
   - **Regulating the financial sector** – the Bank of England plays an important role requiring banks to hold certain amounts of capital in case of a crisis. They also promote competition in the financial sector, as well as monitor the overall sta
   - **Lender of last resort** – the central bank can provide emergency funding to fina crisis, to prevent a bank run (which is when people with deposits at the bank l withdraw their money at the same time – this happened to Northern Rock in t
   - **Promoting financial stability** – the central bank is charged with maintaining co financial system as a whole. It achieves this through the functions mentioned guidance' strategy, where the bank announces future policy changes in advan won't be any sudden surprises.

   Your answer should clearly explain two or three of these points.

   Note: Since the financial crisis, regulation of the financial sector has been delegated England including the Prudential Regulation Authority (responsible for making sure excessive risks), the Financial Policy Committee (responsible for monitoring threats and the Financial Conduct Authority (responsible for protecting consumers and pro sector). You don't need to know any of these details for the exam.

Case Study 10: Canada's economic policies

Data response question

1. GDP per capita = \$50,000 and population = 35 million, so GDP = \$1.75 trillion. Gove money terms:
   Government debt = 1.75 * 0.865 = **\$1.5 trillion**
2. Figure 2 states that energy consists of 10% of GDP. GDP is \$1.75 trillion, so energy i
3. Canada's population is 35 million, and Figure 2 states that 16 + 1.8 = 17.8 million pe
   So the percentage of Canadians in employment = (17.8 / 35) * 100 = **50.857%**
4. From Figure 2: roughly **16%** (accept 15–17%)

Test your knowledge

1. 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.
2. 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.

Extended-response question

1. You could structure your answer either by talking about short-term positives/negat talking about all the positives over both the short- and long-term and then moving approach:

   Short-term benefits:
   - Boost to employment leading to boost in economic growth. Potential for mul

   Short-term costs:
   - Possible inflation if AD shifts significantly (since AS takes a while to catch up)
   - Increase in budget deficit. Could reduce market confidence, increasing intere effects, if markets have faith in the long-term economic benefits of the plan.

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

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Long-term costs:
- Potentially higher debt repayments (depends if the benefits from the higher g
- May have to lay off workers who were employed only temporarily

You could draw an AD/AS diagram to illustrate your answer, or simply refer to the d (rather than drawing it again). You can conclude that the policy would be beneficia long as it is well justified (e.g. you may argue that it would be good because Canada or you may decide that it would be bad because Canada faces falling export prices, lo

Case Study 11: Ireland's housing market bubble

Data response question

1. (a) If average income is €30,000, and long-term average house prices are eight tir average price of a house in Q4 1980 is:
   8 * 30,000 = €240,000
   (Since in Q4 1980 the index = 100)

   (b) In Q1 2007, the index of 166.2 shows house prices are 66.2% higher than the b 2007 would be 240,000 * 1.662 = €398,880.
2. The answer is (c) – it is impossible to determine. Since the prices are all in index fig house prices. Even though Ireland's house prices were proportionally higher in 200 the UK could have been higher to start with.
3. We know from Figure 2 that China's real house prices have followed a modest upw can't be explained by falling house prices. A more likely explanation is that the ave steadily: this is a fact you should be aware of (China has single-handedly lifted a sta poverty in the last few decades).

Test your knowledge

1. (a) Ireland's house prices increased rapidly from Q1 1993 to a peak in Q1 2007 (1) around 2012 (1), when prices slowly began to pick up again.

   (b) The index number for Q1 2007 is 344.1. This indicates that (real) prices are 3.4 (when the index number was 100). Any answer between 3 and 3.5 times large
2. Ireland's fiscal policy consisted of increasing government spending and reducing ta budget = tax revenues – government expenditure, this should lead to a budget defi can make arguments that in the long term lower taxes lead to higher tax revenues, mark for identifying fiscal policies, 1 mark for explaining how they lead to a deficit.

Extended-response question

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

   On the negative side, clearly in Ireland's case too much deregulation was a bad thin behaviour to emerge. If financial institutions cannot effectively self-regulate, then or oversee the industry to some degree. On an AD/AS diagram, you could potentia AS (during the boom) following by a fall in AS (during the recession) – this is not req conclusion should mention that the effectiveness of deregulation depends on the d the industry to start with.

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Case Study 12: Footloose TNCs: Google vs HMRC

Use the data

1. (a) If the exchange rate is £1=$1.5, then Google's revenue in the period was £4.33 26%, then profit was (0.26 * 4.33) = £1.13bn. Total tax paid was £46.2m, whic generous tax rate indeed!
   (b) In this case, the effective tax rate would be five times larger, or 20%. This is m on whether this is a fair way to calculate it or not.
2. Facebook ($183.9bn from only 9,200 employees).
3. 6,670,000 (333.5bn divided by 50)

Test your knowledge

1. It helps to reduce inequality in society, since it goes some way to prevent the senio profits. (This assumes that any excess profits are kept by company members instea business.) (1)

   You could also argue that it helps the government to keep a balanced budget, since increase tax revenues.

Extended-response question

1. Based on the article and economic theory, this would generally be seen as a bad po argue that raising corporation tax would raise government revenues, reducing the b between government spending and government revenues). However, there are so
   - Laffer curve (the idea that increasing the tax rate could reduce tax revenues, d
   - Companies can avoid taxes / are footloose (as explained in the article: particul

   You may argue that this policy would be ineffective unless it is coordinated with oth unless certain tax 'loopholes' are closed (but this is easier said than done!).

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