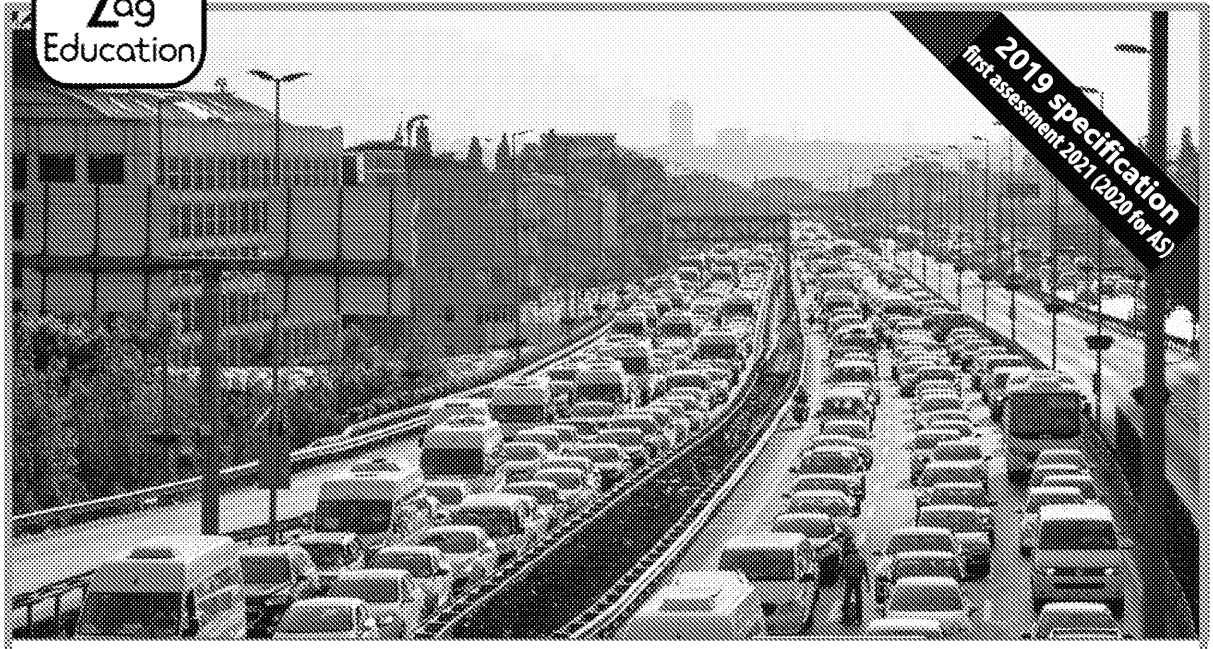
Zig Zag Education

Economics AS / A Level | OCR | H060/H460



Data Response Case Studies

For AS / A Level Year 1 OCR Economics: Microeconomics

Second Edition, February 2022

zigzageducation.co.uk

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Contents

Teacher's Introduction

This resource is designed to be used for teaching the microeconomics section of OCR AS Economics. It is designed to be co-teachable with A Level, covering only 'Year 1' topics that are shared with AS. The resource consists of 12 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/A 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 1 component of the AS and A Level exams, but also stimulate an interest in the real-world applications of microeconomics. Each case study uses real data, introducing the student to a fascinating array of contemporary microeconomic issues.

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

September 2017

Update v2, February 2022
Minor updates to match 2019 specification: specification topic names updated throughout.

Case study	Specification reference
1. Innovation at Ford	'Opportunity Cost' and 'Specialisation and Trade'
2. Black gold	'Supply and Demand and the Interaction of Markets'
3. The UK dairy market in decline	'Costs and Revenue,' 'Supply and Demand and the Interaction of Markets' and 'Elasticity'.
4. Football ticket prices	'Supply and Demand and the Interaction of Markets' and 'Elasticity'
5. Organic food vs Poundland	'Elasticity'
6. Online news vs print news	'Elasticity'
7. China's pollution problem	'Market failure and externalities' and 'Government failure'
8. The UK housing market: pulling up the ladder?	'The Basic Economic Problem' and 'Externalities'
9. Should the government tax sugar?	'Externalities' and 'Government Intervention'
10. Solar panel subsidies	'Government Intervention'
11. A minimum price for alcohol?	'Government Intervention'
12. Reforming the NHS	'Government Intervention'

Innovation at Ford

This case study requires knowledge of the topics 'Opportunity Cost' and 'Specialis

In the early twentieth century, the automobile manufacturer Ford was wil
the increase in Ford's profits over time, compared to modern-day equivale

Figure 1: net profit (pre-tax)

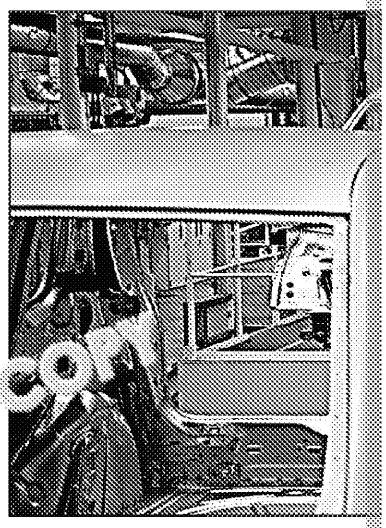
	Ford ($million, 1910)		Volkswagen (€billion)
1910	4.2	**2010**	7
1911	7.4	**2011**	11.3
1912	13.1	**2012**	11.5
1913	26.5	**2013**	11.8
1914	30.4	**2014**	12.7
1915	[illegible]	**2015**	-1.7*

*Third quarte

Source (Ford 1910): 'Did Henry Ford Pay Efficiency Wa

Of course, the figures are not directly comparable but the percentage chan
the period 1910–1915 far exceeds that of most modern-day companies. As
automobile market was booming, there are two main explanations for For
the production process and so-called 'efficiency wages'.

Improvements in technology meant that Ford's workers could operate on
specialised in their particular task, allowing for greater productivity and o
Smith's pin factory idea). Ford's competitors were also able to benefit fro
the reason that Ford was able to excel above its competitors was through p



Standard economic theory would suggest that a firm would only increase its wages if it sought to attract higher-skilled workers, but in this case that doesn't seem to hold true. Although increasing the wage (to around twice the market rate) did increase Ford's costs, this was more than offset by improvements in productivity. Between 1913 and 1914, production increased by 15%, despite reducing the number of workers by 14% and cutting the numbe working hours in a day (alt gh part of this may be due to i ements in technolog duction methods).

One of the big problems Ford had in the year prior to the wage change wa
(around 10%), perhaps because working in a car factory was so unpleasan
absentee rates fell to only 2.5%, and the number of discharges (firing of w
workers were so keen to keep their jobs.

Ford saved a lot of money at the time by dramatically reducing their turnc
can partially be explained by an economic downturn at the time, there doe
that paying a higher wage incentivised workers to stay with Ford and incr
This was particularly important for Ford, since on an assembly line the effi
depends on the speed of every part of the line.

Some have argued that Ford's experience provides evidence for raising th
introducing a living wage. This is not necessarily the case, however, since
policy was that their wages were high *relative to their competitors*. If everyo
minimum wage, the incentive effects for workers probably wouldn't be as

Use the data

1. (a) Calculate the percentage change in profit for Ford between 1912 and 1
   (b) Calculate the percentage change in profit for Volkswagen between 201
2. Why d wagen's profit fall so much in 2015? (If you don't know – look
3. Name one disadvantage of specialisation in the automobile industry, and ex
   problem.

Test your knowledge...

1. Show the effect of specialisation in the automobile industry using a PPF with
   x-axis (horizontal axis) and number of other goods on the y-axis (vertical axis
   other industries remains the same.
2. Show the effect of high worker productivity on a demand and supply diagra

Extended-response question

1. Assess the pros and cons of specialisation in the teaching profession (e.g. w
   subject rather than a range of subjects).

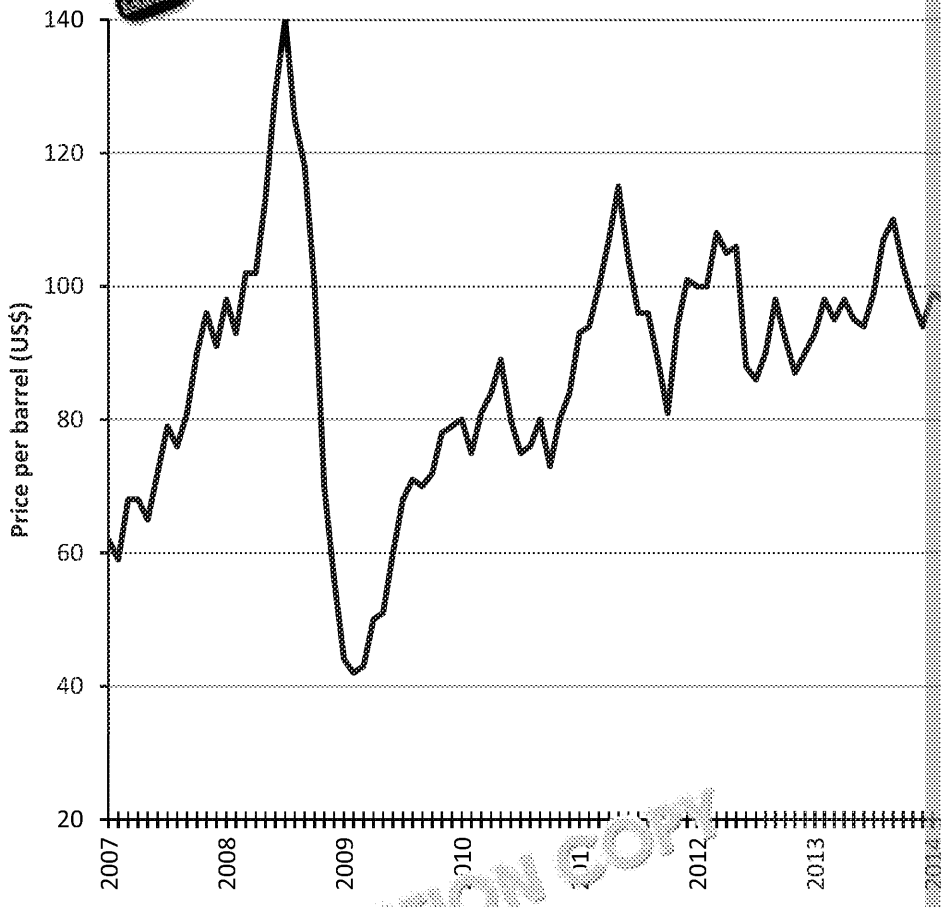
Black gold

This case study requires knowledge of the topic 'Supply and Demand and the Inte

Investing in commodities is a big business. Speculators vie to predict price movements in all sorts of commodities such as gold, meat and coffee – but prices are often very difficult to predict. The price of the most valuable commodity of them all, oil, is notoriously unpredictable.

Swings in crude oil prices not only decide the fate of investors and oil companies, they can also have a huge impact on whole economies, particularly those that rely on oil production as a main source of income. Figure 1 shows the world price of oil since 2007:

Figure 1: oil price (2007–2016, monthly)



The volatility of the oil price can be explained through simple demand and supply. The 2008 global financial crisis, a fall in demand was the key reason for the plunge in price. Global demand is still somewhat weak, and there is a growing interest in the use of renewables. However, the main explanation for the more recent price drop (2015 onwards) is that

Advances in technology have allowed production of shale oil in the US to increase. The relaxing of economic sanctions in Iran has also enabled them to increase their output. In addition to this, oil production by OPEC members (Organization of the Petroleum Exporting Countries) such as Saudi Arabia has remained high. Some argue that since OPEC countries have low production costs, they are trying to force their competitors out of the market by deliberately

If this is the case, they may well be succeeding. British Petroleum (BP) is c
of its total employees), and many other large oil companies are cancelling
Russian and Venezuelan economies, which are heavily dependent on oil e

Obtaining estimates of the price and elasticities of demand and supply for
generally accepted that the demand for oil is price inelastic (particularly in
supply has become less price inelastic as the number of different methods
has expanded.

Use the data

1. Using Figure 1, estimate the percentage decrease in the oil price from the st
2016.
2. Why is the price elasticity of demand for oil expected to be lower in the sho

Test your knowledge...

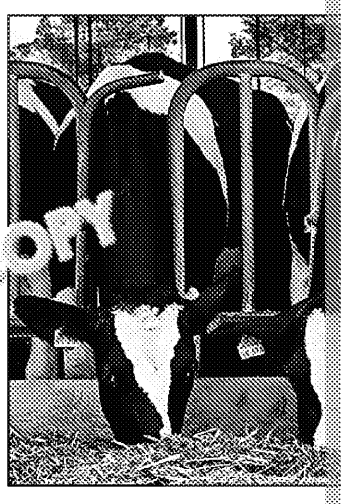
1. What is meant by the problem of 'scarcity'?
2. Explain how a growing interest in the renewable energy sector would be ex
demand for oil.
3. Based on the information in the article, use demand and supply diagrams to sh
   (a) During the financial crisis
   (b) After 2015

Extended-response question

1. Suppose that a technological breakthrough made a particular type of renew
Using a diagram, evaluate the effect of this development on the market for

The UK dairy market in decl

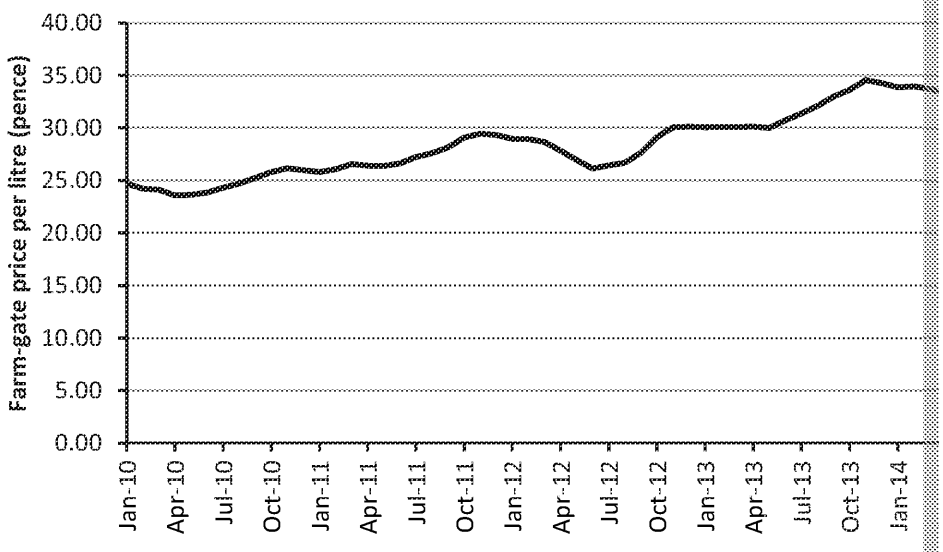
This case study requires knowledge of the topics 'Costs and Revenue', 'Supply and Markets' and 'Elasticity'.



Dairy farmers in the UK had a very rough year in 2015. In January, First Milk, a large dairy processor that farmers sell their milk to, ran into financial problems, resulting in a two-week delay in payments to farmers. Following this, throughout the year various factors have combined to reduce the price of milk. This has meant that many farmers now o[illegible] below their costs of prod[illegible].

Figure 1 sh[illegible] UK milk prices over time. This is the 'farm-gate price' – the price at which farmers sell milk to dairies (who then process the milk and pass it on to retailers). As such, the farm-gate price is in the supermarket:

Figure 1: UK average price of milk (Jan 2010 – Dec 2015)



Source: Department

One of the reasons why prices are so l[illegible] that there is an excess supply o[illegible] partly due to good weather co[illegible] (farmers were affected by few drou[illegible] and there was a bum[illegible] harvest).

The fall in [illegible] has been coupled with a fall in global demand: the slow[illegible] has reduced their demand for all sorts of goods including milk, and econo[illegible] prevented them from importing milk from UK producers. Domestic dema[illegible] milk consumption in the UK has fallen by 18% over the last 20 years.

Other factors hurting UK producers have been price wars in UK supermar[illegible] some supermarkets price milk very cheaply to attract people into the shop[illegible] buy higher value items (in some cases, milk has been cheaper than water). [illegible] has also hurt farmers.

These factors forced some UK dairy farmers out of the market in 2015. Th
the industry, as Figure 2 shows:

Figure 2: Total dairy producers, UK 1995–2014

Another reason for the decline in the fortunes of dairy farmers could be ch
Between 2013 and 2015, the market value of nut- and seed-based milk alte
increased by 177%. Consumers are willing to pay more for these alternati

Some commentators argue that milk has been homogenised and treated so
longer aware that there can be a great variety of different tastes between m
bacteria in milk by heat treatment) started as a wartime necessity for prolo
nowadays milk still tends to be produced as cheaply as possible with little
Perhaps this matters less in the UK where milk is usually added to tea, cof
consumed on its own (as in some other European countries), but the lack o
may be another reason why the industry is in decline.

Use the data

1. State the three functions of the price mechanism.
2. Look at Figure 1. Estimate the percentage change in price between the pea
December 2015.
3. 'If the number of dairy producers in the UK is falling, the price of milk will ris

Test your knowledge...

1. (a) Define the term 'consumer su
   (b) Define the term 'produ
   (c) Draw a dema
   su
2. Show t ct of a fall in demand and an increase in supply on the market
3. (a) List **two** factors that shift demand.
   (b) List **two** factors that shift supply.
4. Identify one possible fixed cost and one possible variable cost for dairy farm
5. If demand for milk is price elastic, what does this suggest about the average re

Extended-response question

1. Evaluate whether the rise of milk alternatives, which sell for much higher pr
is good or bad for milk producers.

Football ticket prices

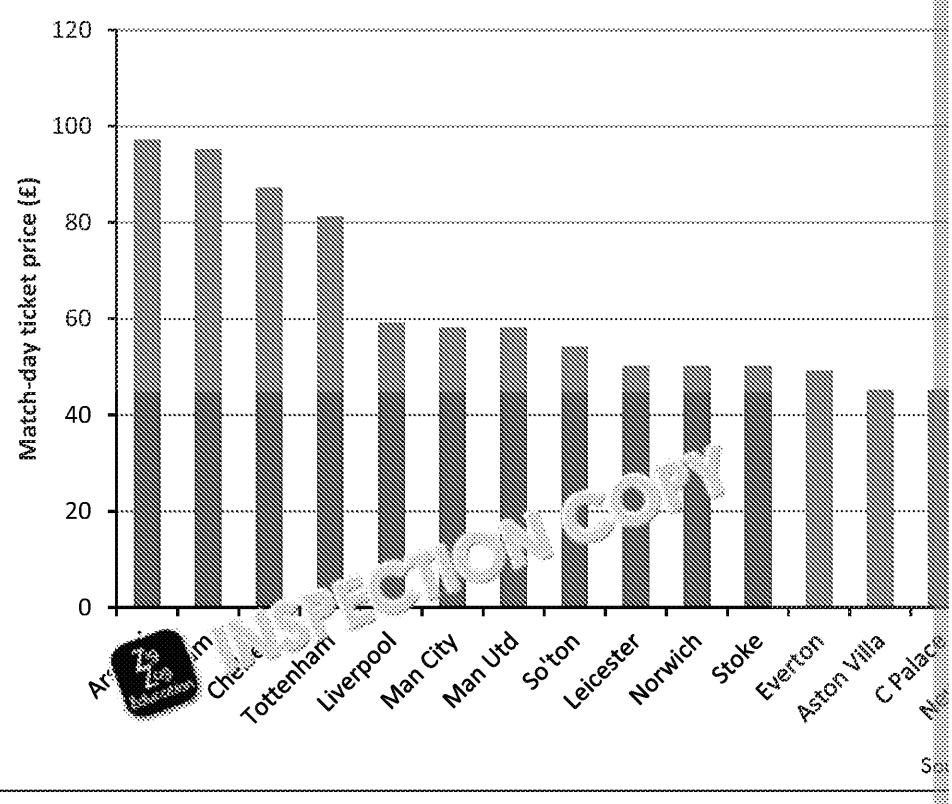
This case study requires knowledge of the topics 'Supply and Demand and the Int and 'Elasticity'.

Football is the world's most popular sport. Consequently, there is an awful lot of money involved.

When it comes to pricing match-day tickets, football clubs have something of a dilemma. On the one hand, seats for Premier League matches are rarely left empty, so increasing the prices should be a guaranteed way to increase revenues (and ... very important for staying co... ve, particularly for attracting and retaining top players and managers). However, raising prices too mu football can be a fundamental part of their lives. For many fans, watching substitute for attending the game in person.

Liverpool experienced this first hand in February 2016, when they increas expensive tickets from £50 to £77. Over 10,000 Liverpool fans walked out in protest – so Liverpool's owners reversed the decision.

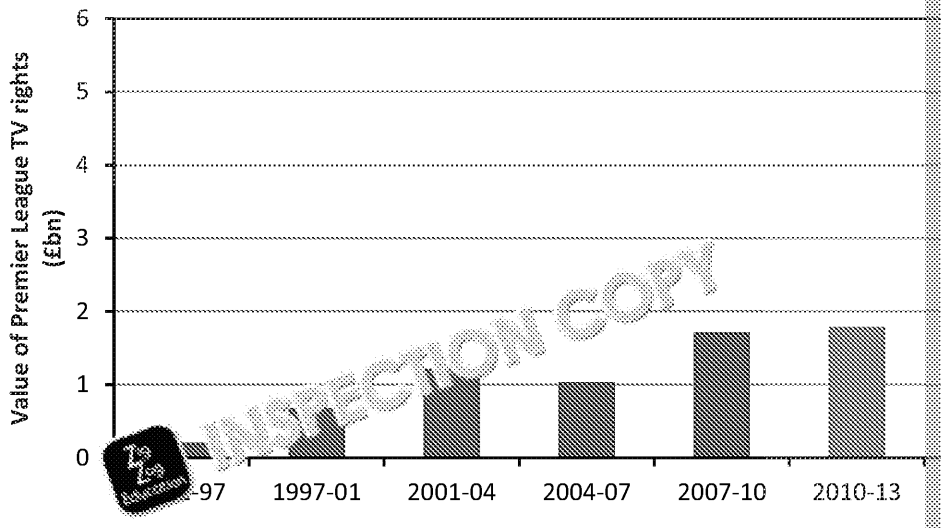
Figure 1: Match-day ticket prices (Premier League clubs 2015–16)



The proportion of a club's revenue that comes from ticket sales varies: Liv increasing the price of tickets seems like a guaranteed way of increasing re left unsold for Premier League clubs). Although this figure is often lower City's is around 7%), it still represents a valuable source of finance.

However, fans have argued that since revenues from TV deals are increasi
Figure 2 shows that the value of televised football has increased significan

Figure 2: Value of Premier League TV rights, 1992–2019



For 2016–19, Sky and BT both increased their bids for the TV rights signifi
years to claim the market.

Given this windfall for clubs, some argue that it is only fair that this transl
But from a purely economic motive, clubs might be tempted to stick with t
demand for tickets will stay strong, and that it could give them a competiti

Use the data

1. (a) According to standard economic theory, are Premier League tickets pri
equilibrium market price?
   (b) In this case, which of these are true?
      i. There is an excess of supply over demand
      ii. There is an excess of demand over supply

2. Why do you think ticket prices are so much higher for Arsenal, West Ham, C
other clubs? (Hint: you need to know where these clubs are located to answ

3. In economics we usually assume that firms aim to maximise profits. Do you
football clubs?

Test your knowledge...

1. Suppose a football club increase[d] t[i]ck[e]t prices by 20%, and demand for t[i]
   (a) Calculate the price elasticity of demand.
   (b) What does this value suggest about the elasticity of demand for footbal

2. Explain [what] factors determine the degree of PED. Which do you think is mos

3. (a) Draw the market for football tickets using a demand and supply diagra
inelastic and demand is relatively inelastic.
   (b) Using your diagram from part (a), show the effect of an expansion in th
the market for tickets.

Extended-response question

1. Discuss the argument that clubs should increase prices to the market equilib

Organic food vs Poundlan

This case study requires knowledge of the topic 'Elasticity'.

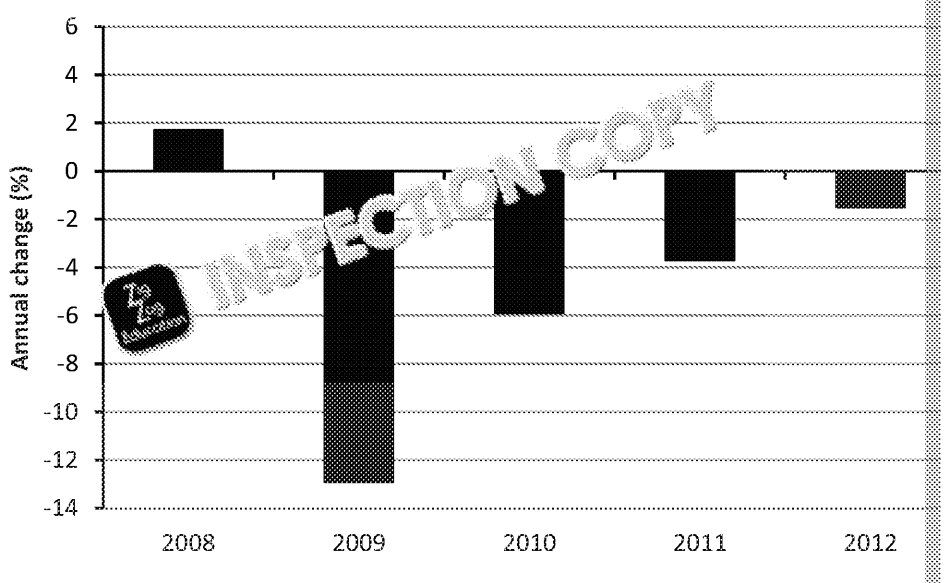
The global financial crisis of 2008 caused a recession in the UK. People's i
on consumer spending. This created winners and losers in the business w
was the discount retail market, as people adjusted their shopping habits to
Poundland is a prime example: between 2008 and 2013, its total sales jump
Figure 1 shows Poundland's changing share of the total retail market over
market was worth £360bn):

Figure 1: Poundland's market share (2008– 01)

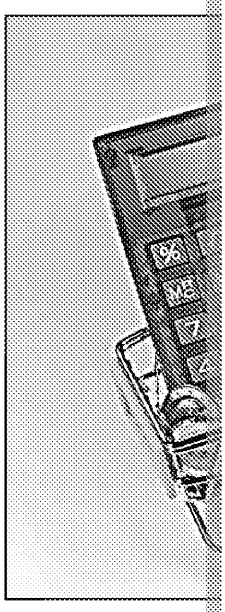
Interestingly, the performance of Poundland (and other discounters such a
have stayed strong long after the economic recovery. This could indicate a
perhaps a feeling among households that incomes haven't recovered suffi

In contrast to the discount retailers, purveyors of pricier products have ha
shows the changes in total sales of organic produce in the UK between 200
sales in 2014 were £1.86bn, on par with 2009 levels):

Figure 2: UK organic market, total sales



The UK organic market was hit hard by the recession, recording four consecutive years of negative sales growth. That trend does seem to be reversing now though, and many analysts are confident of strong growth in the coming years.



Notably, the organic markets in some other countries were not as badly affected: Germany and France saw consistent growth in the organic market, despite the global recession. This is partly due to different consumer tastes (in France, almost 9 out 10 people consume some organic products), but also du[illegible] larger- scale production in these co[illegible]. In the UK, rising demand for organic p[illegible] has yet to be met with increased dom[illegible] supply.

Use the data

1. Using the information in the article, calculate Poundland's share of the retai
2. What would you expect the income elasticity of demand for Poundland's pr
3. Why might consumers be happy to continue shopping at discount retailers ev

Test your knowledge...

1. (a) Suppose consumer incomes fell by 5% in 2009. Using Figure 2, calculat elasticity of demand for organic produce.
   (b) Explain whether your answer to part (a) is also true for France.

Extended-response question

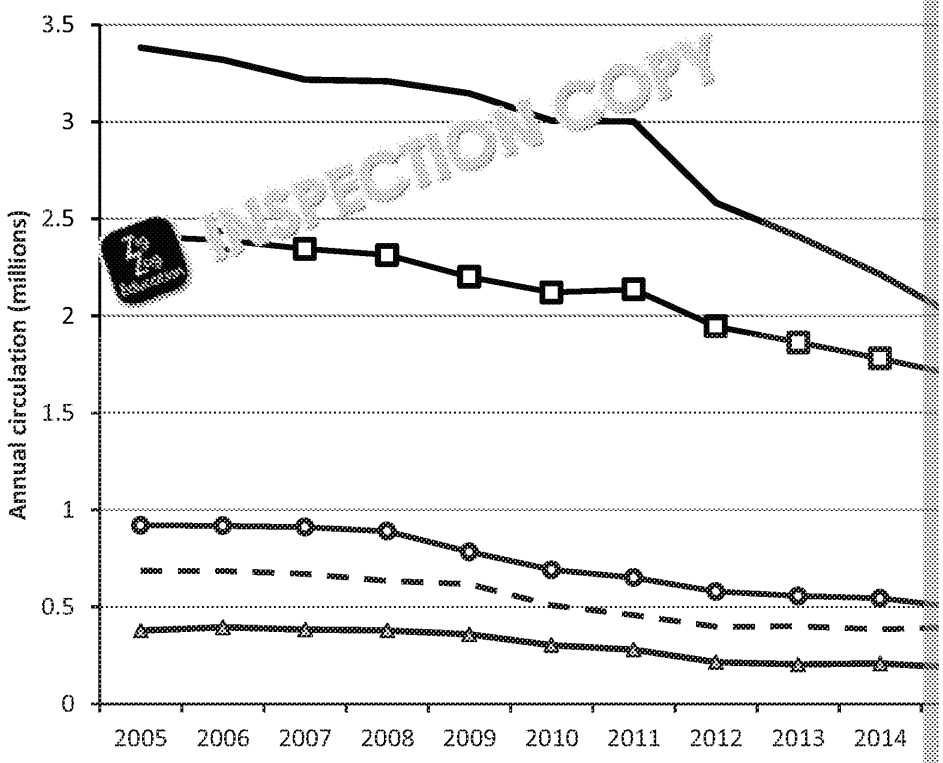
1. Assess the likely impact of a significant rise in consumer income on the mar organic goods.

Online news vs print news

This case study requires knowledge of the topic 'Elasticity'.

The news market has been reshaped dramatically in the past few decades with the rise of online news services. As online news has grown, newspaper circulation in the UK has declined. See Figure 1:

Figure 1: UK newspaper circulation 2005–2015 (selected papers)



All of these papers offer online news as well as print news. Some of them require a subscription to access the rest (*Daily Telegraph, The Times*). This was successfully by *The New York Times* in the US. Others post their content for advertising revenues to fund it (*Daily Mail, The Guardian, The Sun*). The former Andrew Miller, explained in 2013 that they would not be implementing a build up a digital audience first.

So if free digital news is so abundant (particularly from the BBC, which is government funded), why has paper circulation not evaporated completely? There are some arguments to suggest that online news and newspapers are not perfect substitutes.

Firstly, some content is quite exclusive or technical (e.g. *Financial Times, The Economist*) and cannot be easily accessed for free – so it would make sense that the print versions (or the paid online services) of these types of publications have been protected. Also, some consumers do not have access to the Internet and cannot swap their paper newspapers for online services.

There is also some evidence that readers who use actual newspapers retain who use online news. For one thing, in paper newspapers it is easier to es stories (i.e. more important news stories come nearer the front of the pape news, since most news items are stand-alone, it is harder to determine thei online news services are more likely to break up their articles with adverts another page – both of these could weaken the reader's concentration.

Ultimately, some readers just prefer reading something on paper than rea who prefer hard copies of books to digital versions. As such, the print new alive and well for the foreseeable future.

Use the data

1. State two goods that you think are stronger substitutes than online news an
2. Look at Figure 1. Which type of newspaper has declined more in recent yea or broadsheets?
3. Using Figure 1, estimate the decrease in the total circulation of the five new and 2015.
4. Based on the article, why might some publications be better off using a pay

Test your knowledge...

1. (a) State the formula for cross elasticity of demand.
   (b) Suppose the cross elasticity of demand between online news and print of print newspapers increased by 6%, calculate the change in demand f
2. Using the article, explain two reasons why the online news and print newspa

Extended-response question

1. Assess the extent to which a fall in the price of tablets/e-readers would affe online news.

China's Pollution Problem

This case study requires knowledge of the topics 'Market Failure and Externali

Market failure occurs when the interaction of market forces allocates scarce is, when resources are not allocated to their most socially optimal ends. M many reasons, including the existence of monopolistic or oligopolistic mar demerit and merit goods, etc. Yet, when we're analysing the economic imp predominant source of market failure is the existence of negative externalit environment provides economies with essential resou[illegible] for the productio materials by economic agents can often contri[illegible]ute to environmental damag aware that burning fossil fuels emi[illegible]re[illegible]house gases which damage the natural defence against h[illegible] UV radiation.

However, [illegible]nists' perspectives on environmental damage differ from th environmentalists. Not because economists don't care about the environme land (and its fruits) is one of the crucial factors of production – but because th imposed on external stakeholders. For instance, Nicholas Stern (a famous Br to the Royal Economic Society suggested that 'the problem of climate change of markets: those who damage others by emitting greenhouse gases generall

Figure 1:

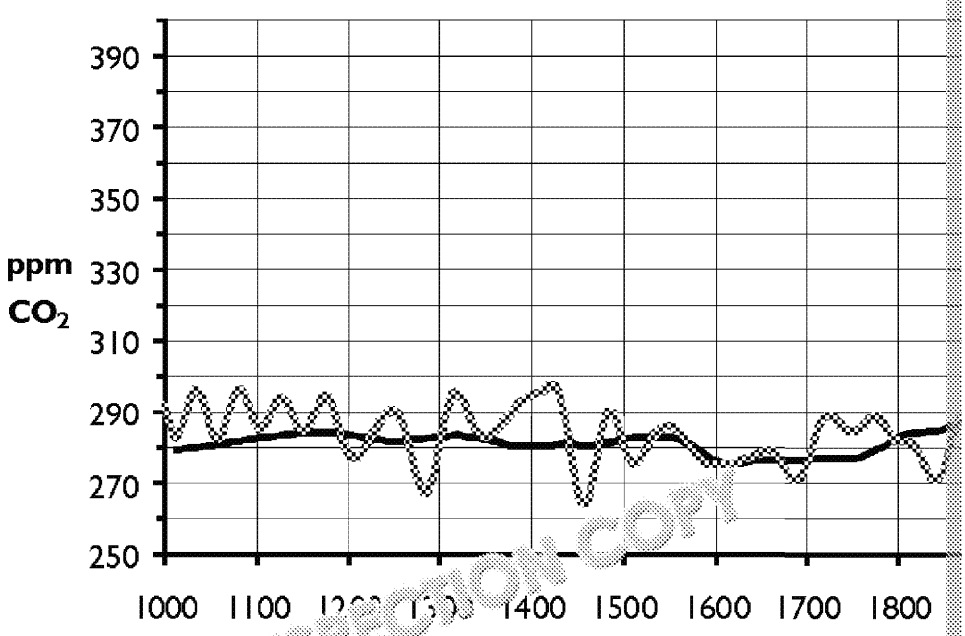
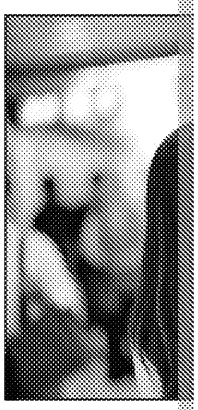


Figure 1 g[illegible]ali[illegible]epresents the effects of climate change on atmospheri measured i[illegible]s per million (ppm)) and temperature (dotted line; measu CO_2 emissions and global temperatures have clearly risen over the past mil most marked during the last century as many of the world's economies ha and industrialised (notably because of the prevalence of globalisation).



One such economy is China. The process of China's modern industrialisation began in 1978 when President Deng Xiaoping began the reformation of the Chinese economic system from that of a centrally planned economy to one that is (at least partially) market-based. Since then, China's rate of economic growth has been extraordinary and it has now become the world's second-biggest economy. China's industrial revolution, however, has come at a substantial environmental cost, and it is now home to some of the world's most polluted cities.

Pollution constitutes one of many environmental losses in China and is a s economy as it is suggested that as many as 6 million Chinese citizens die of breathing in polluted air. Often in China's capital, Beijing, residents are indoors by official Chinese environmental regulation agencies because poll threat to their health. Importantly, the negative effects of Chinese industri China alone. Indeed, the entire international community feels these effects

However, while most Western economies have taken preventative measur pollution and environmental degradation, the Chinese have been a little m Indeed, China's environmental policies have been criticised because they d environment. Despite some efforts being made to curb environmental thre economic growth is still the primary objective for the Chinese government unfortunately must take a back seat for the immediate future. But, with the reached in late 2016, can the world afford to wait?

Use the data

1. (a) Using Figure 1, calculate the *percentage* increase in atmospheric CO_2 co millennium.
   (b) Using Figure 1, what was the *level* increase in temperature over the las
2. Imagine that industrial producers (including China) had internalised the exte gases. How would Figure 1 change?

Test your knowledge...

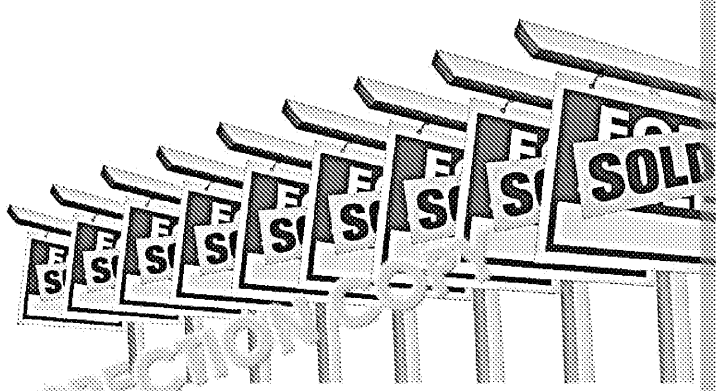
1. (a) What is a 'negative externality'?
   (b) Show this diagrammatically.
2. Using a Kuznets curve, explain the relationship between environmental deg development. Where would you place China on this curve?

Extended response question

1. Evaluate a potential policy response that the Chinese government could ma pollutant effects of industrialisation. Is it possible that government failure m

The UK housing market: pulling up t

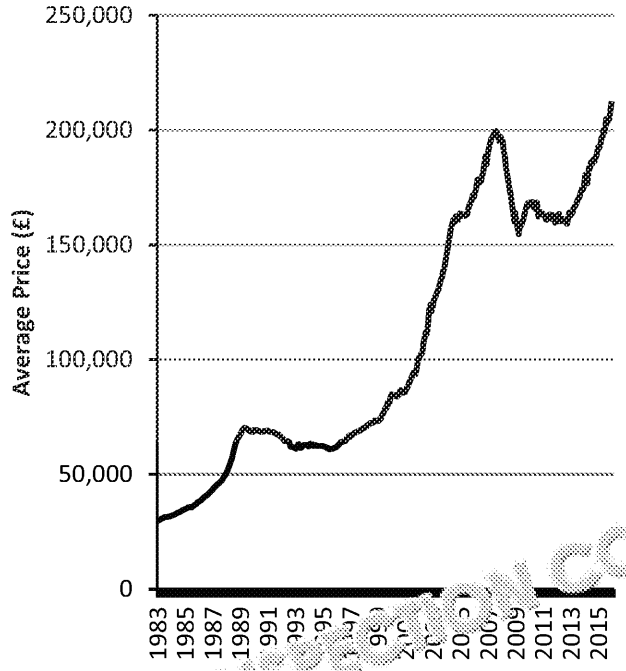
This case study requires knowledge of the topics 'The Basic Economic Problem' an



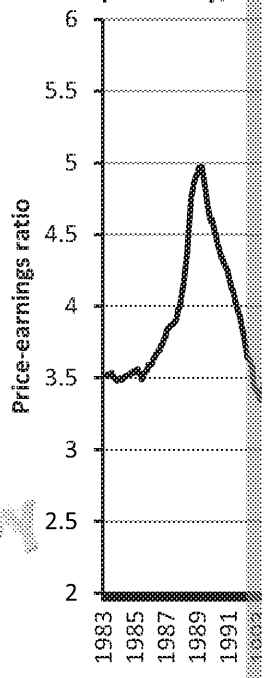
Why are h pri s in the UK so high? In popular areas such as London price range se on average salaries. Ceteris paribus (other things bein rising naturally due to changes in the population: via ageing and immigra of people living alone. However, the main cause of the soaring prices is a In a speech in November 2015, George Osborne (the Chancellor) described housing as one of 'the great social failures of our age'.

Figure 1:

Panel 1 – UK average house prices.



Panel 2 – U (monthly, J

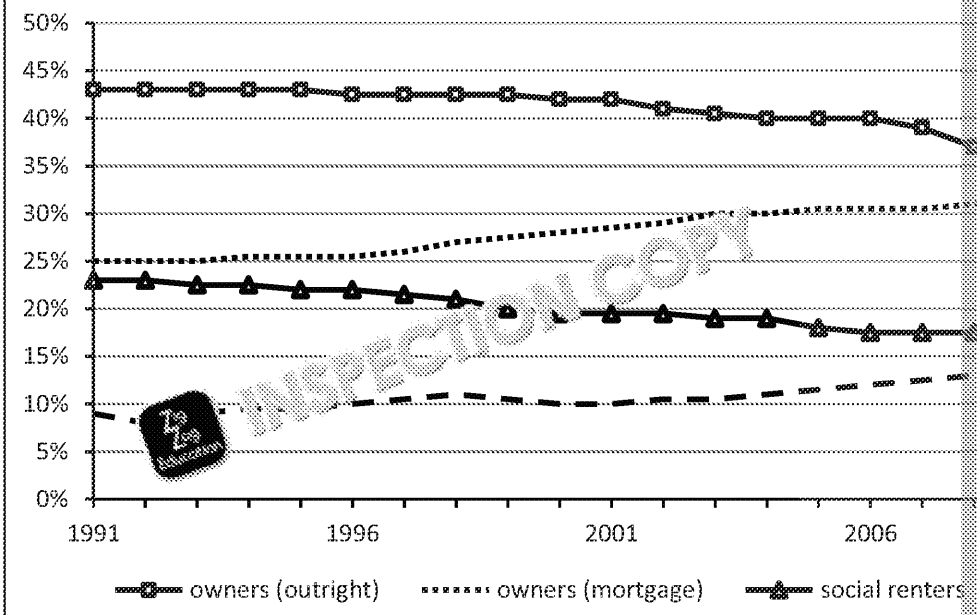


Note: price e ratio = price ÷ earnings, where earnings = average earnings for men in full-t

One problem is the lack of skilled workers in the housing industry. Altho contributed strongly to the construction sector, there is an acute shortage plasterers, bricklayers and electricians. This has been blamed on a culture these and vocational training in general are seen as second-rate, even thou rewarding and valuable for the economy. A second barrier to expanding belt' system that protects the countryside from urbanisation: this is highly

The excess of demand over supply has made it much harder for young pe
ladder. More young people in their 20s are staying with their parents or r
change in the composition of housing tenures over time:

Figure 2: share of households by type of tenure (1991–2014)



Source: Housing supply in 201

As social rent housing and outright home ownership have declined, priva
own a home (via a mortgage) has increased.

Government policy on this issue has included the 'help to buy' scheme, w
financial assistance from the government, in the form of a loan. The gover
relax planning rules, allowing 200,000 homes for new buyers to be built by
(with capped prices to make them more affordable). Since homes are by f
most people will make in the UK, making these policies work is of paramo

Use the data

1. Look at Figure 2. By how much did private renting change between 2001 an
2. The two panels in Figure 1 show that both the average price of a home and
   increased in the last few years. What can you infer about average earnings

Test your knowledge...

1. Is George Osborne's statement in the first paragraph positive or normative?
2. What is meant by 'a[illegible]efficiency'? How does it differ from 'productiv
3. (a) E[illegible]what is meant by a negative externality.
   (b) Ho[illegible]uld negative externalities arise from the building of new houses
   (c) Show this using a diagram.

Extended-response question

1. Discuss whether the government's policy to relax planning rules and build n
   for the UK.

Should the government tax su

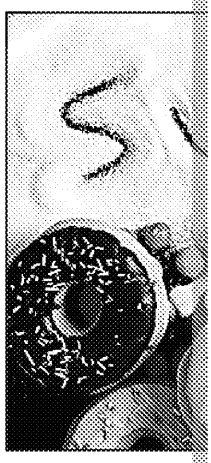
This case study requires knowledge of the topics 'Externalities', and 'Government

The government taxes certain products because they are deemed damagin examples in the UK include tobacco and alcohol, which have well-known health when consumed in excess.

Figure 1: Current UK tax rates on tobacco and alcohol (not including VA

Tobacco			
Cigarettes (pack of 20)	16.5% of retail price plus £3	**Beer** (2.8%–7.5% ABV)	
Hand-rolling tobacco	£4 4 0 25g packet	**Wine** (still 5.5%–15% ABV)	
		Spirits	

Source: *https://www.*



In 2014–2015, the government raised £10.5 billion from alcohol and £9.6 billion from tobacco – together these account for around 4% of total government tax revenue (almost as much as taxes on fuel). Taxes on these sorts of products serve a dual purpose: firstly to reduce consumption, and secondly to generate tax revenue.

The government is reviewing whether to add sugar to the list of goods it taxes. The argument is that excessive consumption of sugar leads to greater strain on the NHS, particularly through conditions such as diabetes (which is estimated to eat up a whopping 10% of total NHS spending). With an ageing population, NHS spending is only going to go reduce sugar-related illnesses could be important. Providing information much sugar may not be enough – people may need a monetary incentive t

However, this would almost certainly be an unpopular measure since – ri such a large part of many people's diets. The government would think tw sugar tax, as they risk being seen as running a 'nanny state' and potentiall possible compromise would be to tighten the requirements on the amount sugary drinks can contain.

The real question economists ha ver is how effective different me sugar consumption.

Use the data

1. Suppose the price of a pack of 20 cigarettes is £8. Calculate the proportion (assuming no VAT).
2. Are there any dangers of having high rates of tax on cigarettes?
3. How much tax would you pay for half a litre of 4% ABV strength beer?

Test your knowledge...

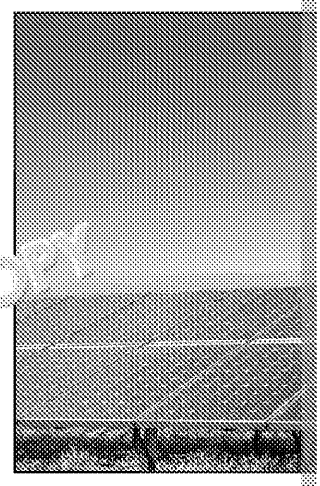
1. What kind of market failure do goods such as tobacco and alcohol create?
2. Suppose that a higher tax rate increases the price of alcohol by 5%, and dem
   (a) Calculate the price elasticity of demand.
   (b) Is this elastic or inelastic?

Extended-response question

1. Discuss the effectiveness of introducing a tax to reduce consumption of sug
   answe

Solar panel subsidies

This case study requires knowledge of the topic 'Government intervention'



One of the ways a government can intervene in markets is through subsidies. The idea is usually to help nurture an industry of strategic importance, or to ensure the supply of certain goods and services.

Recently there has been controversy over cuts to solar panel subsidies in the UK. In December 2015, the government announced that it would cut the FIT (feed-in tariff scheme) by almost two-thirds, and introduce a cap of £100m a year. The FIT scheme is an unusual form of subsidy: it pays households (via energy suppliers) for electricity generated by solar p
kilowatt hour (kWh). Following the cut, this has fallen to 4.39p per kWh: t
to be even higher at 84%, but it was changed following criticism. People w
before the cut will still benefit from the higher rates.

The government's argument was that subsidising the scheme was costing
(estimated at £7 per household each year), since improvements in technolo
installing a solar panel system to drop significantly over the past few year
£5,000–8,000). The government acknowledges that cuts to the system are l
the industry: between 9,700 and 18,700.

The announcement has been met with fierce criticism by environmental gr
coincided with the Climate Summit in Paris) and others. They argue that t
enough to operate without support, and point out that fossil fuel industrie
larger subsidies.

In the UK, subsidies for fossil fuel producers (often in the form of tax brea
averaged $9bn (roughly £6bn) in 2013 and 2014 according to the Overseas
tank. The bulk of these subsidies come in the form of tax relief for the cost
decommissioning oil rigs. Subsidies are set to increase, the idea being tha
consumers.

There are concerns about the UK's ability to meet its environmental target
UK's aviation industry also benefits from an estimated £10bn a year in fue
aviation being widely regarded as the most polluting form of transport.

Fossil fuel subsidies are considered particularly harmful in developing co
consumers see little or no benefit (since so few own cars or home applianc
and Indonesia are scaling back these types of subsidies.

Figure 1: Subsidies for fossil fuel industries, G7 countries

Country	Canada	France	Germany
National Subsidies (annual average, $bn)	2.7	0.125	2.8

Note: recent changes to UK policy (increases in subsidies) are not captured here.

Use the data

1. Assuming that there are 25 million households in the UK, calculate the follow in the article:
   (a) Find out the estimated total cost of the subsidy per year (before the cu
   (b) How much more is this than the new cap on spending?
2. Look at Figure 1. How do the UK's fossil fuel subsidies compare with the oth
3. Using the information in the article, what would be the value of the solar pa original 84% planned cut had gone through?

Test your knowledge...

1. Explain two disadvantages of using subsidies.
2. Name one way other than subsidies in which the government could encoura

Extended-response question

1. Evalua[illegible] for increasing subsidies on solar panels.

A minimum price for alcoho

This case study requires knowledge of the topic 'Government intervention'.

Consumption of alcohol has negative externalities (it is a demerit good). T
of alcohol consumption is less than the current level of alcohol consumptio

Alcohol is already taxed (see Figure 1 in Sugar case study), but the Scottish
want to go further and introduce a minimum price for alcohol to curb exce

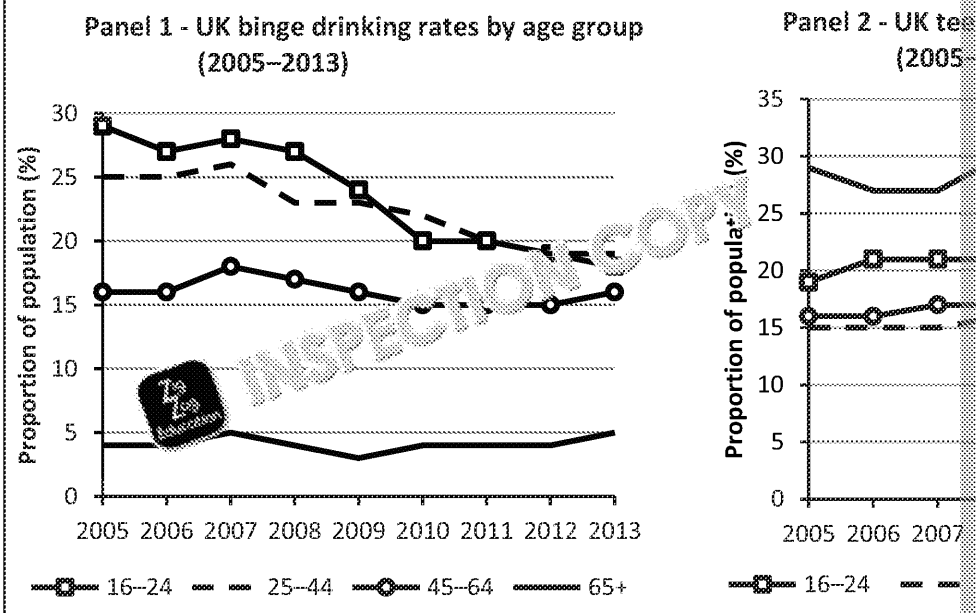
In 2012, the Scottish Parliament passed legislation that would impose a mi
on alcohol. This would mean, for example, that a two-unit pint of cider or
have to cost at least £1 and a litre of 37.5% vodka at 40% ABV would have
since proposed a 50p tax as well. The idea is that this would reduce
heaviest drinkers (who are likely to choose very cheap alcohol).

In England, David Cameron considered the idea of a 40p minimum price, bu
grounds that there wasn't enough evidence that it would reduce consumptio
in Scotland have gone further: the Scotch Whisky Association (SWA) challen
grounds, arguing that it would restrict competition between producers and

After some deliberation, the European Court of Justice (ECJ) argued that t
there were other measures that could achieve the same result without rest
matter is not yet completely settled, it has returned to the Scottish courts t
be successfully argued that the policy is the best way to target heavy drink
(possibly in conjunction with higher existing taxes).

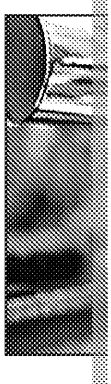
The statistics in Figure 1 suggest that people in the UK are gradually mod
The average number of people who drink no alcohol at all (teetotallers) in
between 2005 and 2013, while the average number of binge drinkers fell fr

Figure 1:



Participants were asked about their drinking habits in the past week. Binge drinking is counted as
or six units (for women) on a single day. Men tend to binge drink more than women (18% of men

Nevertheless, since alcohol contributes so much to health problems in the UK (in Scotland the cost has been estimated at around £900 per adult), there may well still be a case for introducing a minimum price. The economic arguments around this issue are important. If economists could accurately predict how different government policies on alcohol would affect consumer behaviour, it would be much clearer whether the policies would be good ideas or not.



Use the data

1. The passage states that with a minimum price of 50p per unit, a one-litre bo would cost at least £20. With a minimum price of 40p per unit, what would bottle of 44% strength w[illegible]?
2. In your opinion, does figure 1 suggest that we should be concerned about h
3. Look at figure 2. Which age group recorded the greatest increase in teetota

Test your knowledge...

1. Show the effect of imposing a minimum price on alcohol using a demand an

Extended-response question

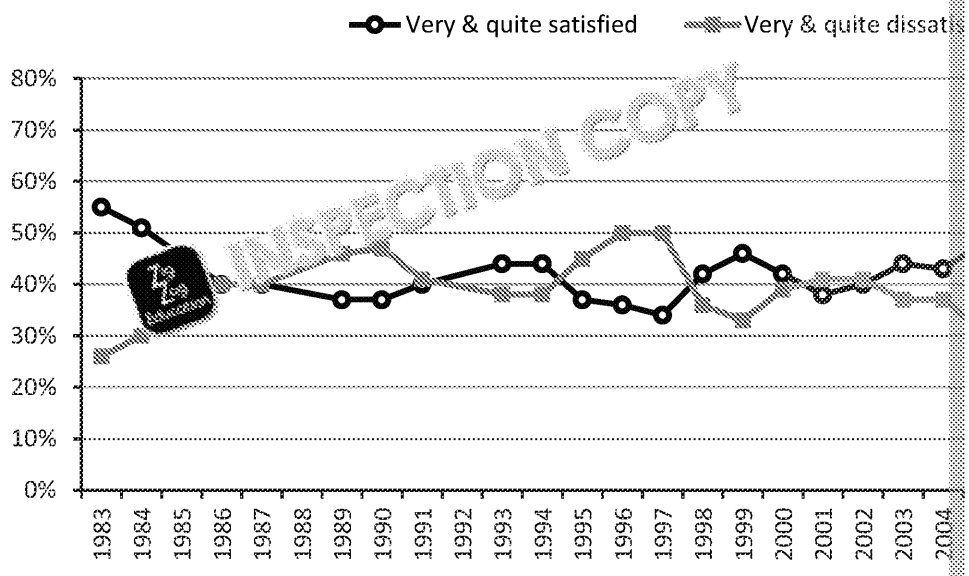
1. Evaluate the effectiveness of imposing a minimum price on alcohol to reduc

Reforming the NHS

This case study requires knowledge of the topic 'Government intervention'. The

In the UK, if any of our institutions is a sacred cow, it is the NHS. The vas
the principle that healthcare should be free at the point of use.

Figure 1: satisfaction with the NHS 1983–2014

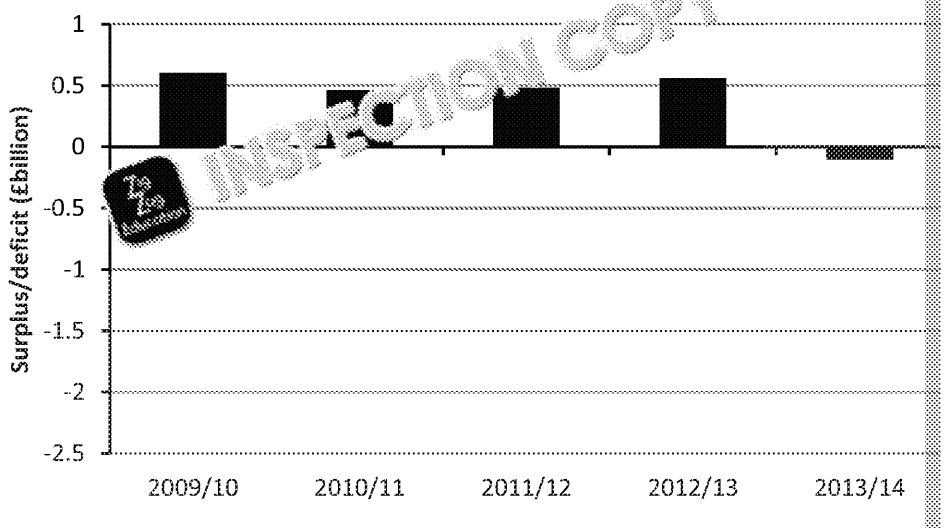


(Note: numbers don't add up to 100% because the remainder are undecided. Question not asked
Question asked: 'All in all, how satisfied or dissatisfied would you say you are with the way in wh
nowadays?'

Despite this, there are concerns about the sustainability of the NHS in its c
government spending each year goes towards the NHS, and with the agei
rising rates of obesity in the UK (already the highest in Western Europe), t
rise unless economic growth increases just as rapidly or government polic

Figure 2 shows how well (or poorly) the NHS has met its budget requirem
The figure for 2015/16 is somewhat alarming (especially since it is a relativ
deficit of £0.93bn was recorded for April–June 2015 alone).

Figure 2: NHS trusts end-of-year financial results



**Predicted*

This could be partially explained by a slowdown in government spending on the NHS (which has risen in real terms every year since 2011, but only very slightly), as part of the more general cuts to public spending. Another explanation is the difficulty of recruiting staff, meaning that more had to be spent on agency workers to plug the gap. However, many commentators are beginning to think that the underlying model is unsustainable.

This deterioration in the NHS's finances has coincided with the ongoing row about junior doctors' contracts. If an agreement can't may struggle even more to maintain adequate staff levels and keep up reg

So what potential reforms could be introduced to combat these problems, a obvious re (e.g. clearing out superfluous layers of management) hav

One option could be to introduce a small charge for visits to the GP. This s and missed appointments (the average person has about five GP visits per revenue for the service. Another possibility could be to cut down the care problems are deemed to be their own fault, e.g. smokers. This would save moral objections to this course of action. Another idea is to integrate prov services with care services for the elderly or disabled, which are currently Streamlining the interactions between these two services could lead to big

Alternatively, the government could simply raise taxes. If the public wish the current standards of service, this may be inevitable, given the increasin

Use the data

1. Suppose total government spending in 2015/16 was £750 billion. Using the and Figure 2, calculate the size of the NHS's deficit as a percentage of its tot
2. (a) The article states that the NHS recorded a deficit of £0.93bn in April–Ju is likely to be higher or lower than this for Jan–March 2016?
   (b) Given this, does the prediction of a £2.2bn deficit for 2015/16 seem lik underestimate?

Test your knowledge...

1. Using Figure 1, describe the trends in satisfaction between 2000 and 20
2. Define the term 'gover failure'.

Extende sponse question

1. Discuss the effectiveness of introducing a £5 charge for visits to the GP, usin failure.

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 behind the causes and effects.
Level 2	3–4	Some knowledge of economic concepts is shown, partially linked to the 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 ques examples. Analysis is well reasoned and logical, and appropriate for the
Evaluation (4)		
	0	No evaluation.
Level 1	1–2	Limited attempt at evaluation – may be only loosely related to the ques reasoning.
Level 2	3–4	Accurate, balanced evaluative comments are made, supporting a rounde 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 wit thought behind the causes and effects.
Level 2	4–6	Some knowledge of economic concepts is shown, partially linked to th 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 qu examples. Analysis is well reasoned and logical, and appropriate for th
Evaluation (6)		
	0	No evaluation.
Level 1	1–2	Limited attempt at evaluation – may be only loosely related to the qu reasoning.
Level 2	3–4	Clear evidence of evaluative comments, though they may be unfairly w argument. Reasoning / supporting evidence is provided but may be in
Level 3	5–6	Accurate, balanced evaluative comments are made, supporting a roun 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 wit thought behind the causes and effects.
Level 2	4–6	Some knowledge of economic concepts is shown, partially linked to th basic reasoning skills.
Level 3	7–10	Good knowledge of the relevant economic concepts is displayed, linke evidence to the main arguments. Analysis is well developed, i sid argument.
Level 4	11–	Knowledge of the economic concepts is very accurate. Links to the qu examples. Analysis is well reasoned and logical, and appropriate for th
Evaluation (6)		
	0	No evaluation.
Level 1	1–2	Limited attempt at evaluation – may be only loosely related to the qu reasoning.
Level 2	3–4	Clear evidence of evaluative comments, though they may be unfairly w argument. Reasoning / supporting evidence is provided but may be in
Level 3	5–6	Accurate, balanced evaluative comments are made, supporting a roun directly to the question.

Case Study 1 – Innovation at Ford

Data response questions

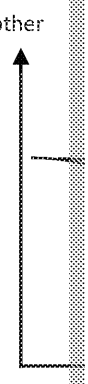
1. (a) 102.29%
   (b) 61.4%

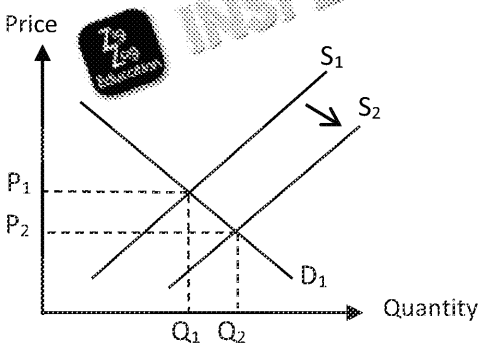
2. VW's profit fell massively as a result of the emissions tests scandal in September 20

3. One of the big disadvantages of specialisation is that workers get fatigued / bored o over again. Ford tackled this by offering very high wages, encouraging them to mai that there are other disadvantages of specialisation, but this is the one that relates

Test your knowledge...

1. Your PPF should show a pivot outwards of the PPF as shown. 1 mark for labelling axes correctly, 1 mark for showing initi PPF, 2 marks for showing pivot out (1 mark if you sh ve parallel shift out – right idea but not quite c rrec a the question assumes production incr s for y in the automobile industry).





2. You should show a shift to the market price and higher quanti labelling, 1 mark for showing sh initial equilibrium and one mar

Extended-response question

1. In this case, one advantage of specialisation is that teachers should become experts teaching it all the time. After several years of teaching, a teacher should be familia and be better able to tackle them than if they covered a wide range of subjects.

   However, it could be argued that teachers may lack a certain breadth of knowledge for them to make important links between subjects (after all, different subjects are Furthermore, it is possible that specialisation would make a teacher tired of their su the same things year on year. It is also possible that teachers may get overly attach (e.g. in economics, new developments occur regularly) – but this could also be true

   Another disadvantage of not specialising teachers is that it might be hard to recruit different subjects: teaching could be of a lower standard in a teacher's less-preferre

Case Study 2 – Black gold

Data response questions

1. At the start of 2014 the price was just under $100 a b a ($98), and at the star under $40 a barrel (around $37). This is a fall of ou 2% [(98 – 37) ÷ 98]. 55–70

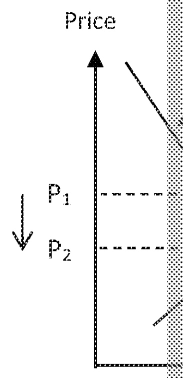
2. In the short run, we assume th co s ers can't change their habits quickly (e.g. t of transport from a ca to anything else), so they don't respond to changes in oil p price in g run, consumers can change their behaviour more, but d has few ubstitutes.

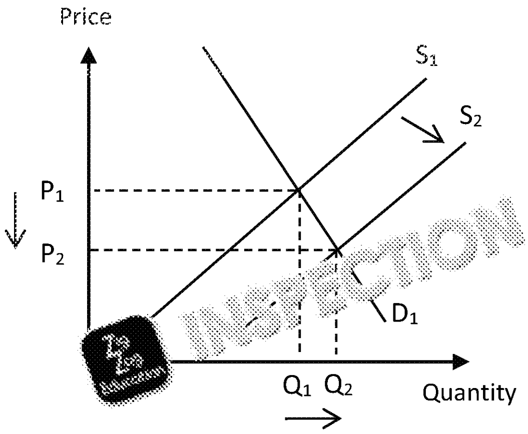
Test your knowledge...

1. Scarcity is essentially the fundamental economic problem. It refers to the problem only *limited* resources to satisfy those wants. (1) Therefore, individuals must make to satisfy given these limited resources. (1) Note that the problem of scarcity is par natural resources – these are non-renewable and so usage of them makes them inc

2. Renewable energy is a substitute for oil in many cases, so a growing interest in the expected to reduce the demand for oil. (1)

3. (a) This diagram should show a shift to the left in demand, resulting in a fall in price and quantity. 2 marks for correct labelling, 2 marks for showing shift correctly.



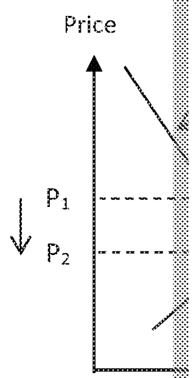


(b) This diagram should sho
resulting in a fall in price
marks for correct labellin
correctly.

Note that in these diagrams d
inelastic, but this is not neces

Extended-response question

1. Renewable energy is an alternative source of energy to oil, so in economics terms we call it a substitute. Since the price of this substitute has fallen, demand for oil will shift to the left, as shown.



The shift in demand reduces the quantity and price of oil in the market. There are some additional points you could make for evaluation marks:
- There might be a time lag between the introduction of this new technology and a change in demand for oil; it takes time to switch between the two types of energy sources.
- Demand for oil might become more price elastic, since there is now another viable substitute good.
- The size of the change in demand depends on how cheap and clean the new technology is.

Case Study 3 – The UK dairy market in decline

Data response questions

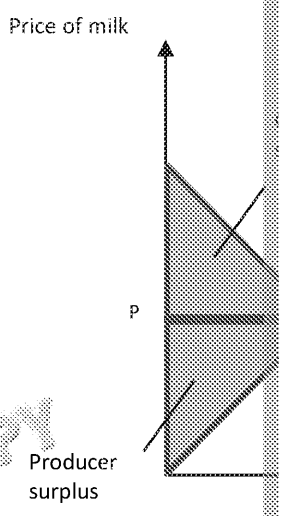
1. The three functions are: rationing, incentive and signalling.
2. At its peak the price of milk was just under 35p per litre (say 34.5p). By Dec 2015, t
The percentage change is: ((34.5 – 24 ÷ 34.5) * 100 = 30% fall in price (accept 27–33
3. This statement might be partially true, but the number of ... producers is not the
examples of why this statement might not hold in ...:
- The number of dairy farmers may ... if the remaining farmers increa
will not rise
- If people's demand ... falls, this could offset the effect of a fall in the num
- If supply from ... milk producers remains high, prices may not increase

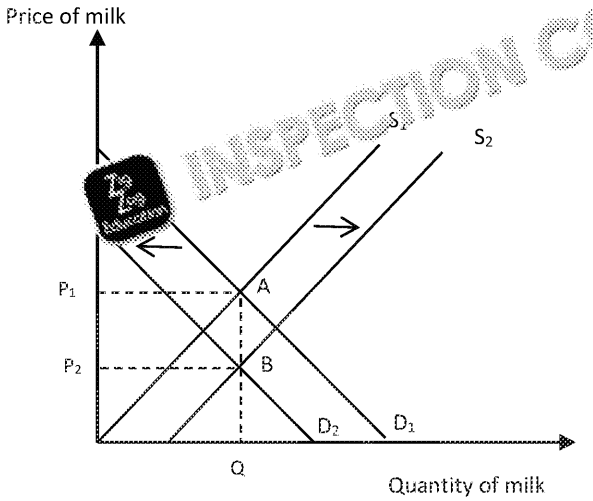
Test your knowledge...

1. (a) Consumer surplus is the difference between consumers' total willingness to pa
actually pay for a good. (1)
(b) Producer surplus is the difference between the amount producers would have
and the price they actually receive. (1)

(c) Your diagram should look something like that on the right. (Note: your supply and demand curves do not have to reach the axes, but it makes it clearer to show consumer and producer surplus.)

1 mark for labelling axes, 1 mark for demand and supply diagram with equilibrium, 1 mark for correctly identifying consumer surplus, 1 mark for correctly identifying producer surplus.





2. Your diagram s
the left: price s
quantity may h
unchanged, as
size of the shift
answer you mu
equilibrium fro

1 mark for labe
1 mark for shift
equilibrium.

3. (a) Factors that shift demand can include: changes in disposable income, changes
expectation, changes in price of substitute and/or complement goods, change
changes in the number of consumers.
(b) Factors that shift supply can include: changes in the cost of production, chang
changes in technology, changes in producer's capacity, changes in the supply o
taxation, changes in subsidies, natural factors (e.g. climate).
(1 mark for each factor listed, up to a maximum of 2 marks per question)

4. Possible variable costs could include: cost of food for the cows, utility bills (this cou
the type of tariff), transport costs, and labour costs. Fixed costs (costs that do not c
cost of land, utility bills, and cost of certification (e.g. for organic farmers). Some co
depending on the situation (e.g. cost of buying cows might be fixed or variable). 1 m
type of cost.

5. Since the demand curve is equal to the average revenu c ve 1), this suggests tha
relatively flat. (1) In other words, average revenu s f l y gradually as output inc

Extended-response question

1. There's no right answ s On the one hand, it might be bad for milk producer
substitut en price is higher – this could be an indication that our dem
the oth it could indicate a gap in the market – if dairy farmers can create a
your ave milk (in terms of taste, quality, etc.) then consumers may be willing to
answer should look at both sides of the argument.

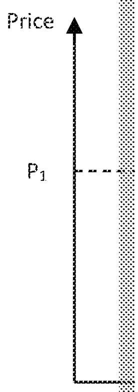
Case Study 4 – Football ticket prices

Data response questions

1. (a) The tickets are below the market price.
   (b) (ii)

2. These clubs are based in London, where living costs are much higher than the rest o[f] charge higher ticket prices.

3. There is no right answer to this. If clubs were profit maximisers, we would expect t[h] (although arguably they already are high). However, they may anticipate that charg[i] fans, leading to lower profits in the long run, so perhaps keeping prices relatively lo[w]. Alternatively, some clubs may genuinely care more about the welfare of their fans than maximising their profit. It probably depends on the club in question.



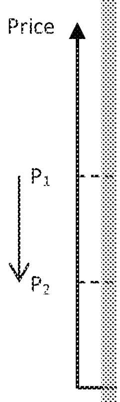
Test your knowledge...

1. (a) $PED = \frac{\%\Delta QD}{\%\Delta P} = \frac{-4}{\ldots}$
   1 mark for ... mark for answer.
   (b) Si... value is between 0 and –1, this indicates that de... inelastic. (1) (Note that PED = 0 is *perfectly* inelastic; PED = 1 is *unit* elastic; PED > 1 is said to be *elastic*)

2. The factors which affect the degree of PED are:
   (i) *The availability of substitutes* – e.g. if there is something that is a close substitute to a certain good, one would expect the good to exhibit elastic demand. (1)
   (ii) *Whether the good is a 'necessity'* – e.g. if something is a necessity, changes in p[rice] demand (inelastic); but, if something is a luxury, a change in price will affect de[mand]
   (iii) *Share of good in overall expenditure* – e.g. if something makes up only a small p[art] are less likely to affect demand. (1)
   (iv) *Time period* – e.g. in the short-run demand is likely to be inelastic; in the long-r[un] easily change consumption preferences and break habits. (1)

   There are very few (or, no) substitutes for one's favourite football club – this is likel[y] the inelasticity of demand to changes in a club's ticket price. (1)

3. (a) Your diagram should look something like this.
   1 mark for labels, 1 mark for inelastic demand curve, 1 mark for perfectly inela[stic] showing the equilibrium price and quantity.
   (b) Your diagram should show a shift to the right in supply, resulting in a fall in price and an increase in quantity.



Extended-response question

1. The argument from the football clubs' perspective could be that increasing ticket prices will increase revenues, allowing the club to invest for the future (e.g. buy more players, expand yo[uth] programme, expand stadium size, etc.). Furtherm[ore, at] the market equilibrium level, all of the tickets shou[ld be] sold. In this case, then, the market would be eco[nomically] efficient.

   This argument seem[s] ... when applied to normal markets, but you co[uld] ... doesn't seem to work in this case: as Liverpo[ol's exp]erience shows. The price rise might lead to a backlash from fans who might not buy tickets even if they could as a protest (higher ticket prices could be regressive, i.e. unaffordable to lower-income fans). The solidarity of fans is one way in which this differs from a normal m[arket] ... assume that each participant acts individually, and that they are not concerned wit[h]

Case Study 5 – Organic food vs Poundland

Data response questions

1. Figure 1 shows that Poundland had a 0.28% share of the retail market in 2013, and t value of the retail market in 2013 was £360bn. Therefore, Poundland's market shar (rounded). Answers from 0.95–1.05bn are acceptable.

2. Poundland's products are likely to be inferior goods (i.e. after a fall in income, dema income elasticity of demand should be negative.

3. There is no right answer to this: there are many possible explanations. One could be discount retailers found that they were happy with the quality of these goods, and d this way. Another could be that the end of the recession hasn't seen incomes rise s change their habits.

Test your knowledge...

1. (a) $YED = \frac{\%\Delta QD}{\%\Delta Y} = \frac{-12.9}{-5} =$ [illegible] (1 mark for formula, 1 mark for answer – a from the graph). Since YED > 1, this means that organic produce is a luxury go falls more than proportionally). (1)
   (b) This is true for France, since the article states that there was consistent gro the recession (i.e. demand increased despite a fall in income), so organic produ

Extended-response question

1. Your answer should first note that demand for discount goods would be expected to and demand for organic goods would be expected to rise (since they are luxury good ways in which you could evaluate this answer:
   - The passage states that discount retailers such as Poundland have continued to recession. This may indicate that consumers are favouring these discounters e (change in tastes). However, you could also argue that a significant rise in inco
   - The change in the market for organic food will also depend on people's tastes or French consumers, are not convinced that organic food is worth paying mor extra income elsewhere.
   - The answer depends on the size of the increase in income, and whether that in consumers or not.

Case Study 6 – Online news vs print news

Data response questions

1. There are any number of possible answers; for example, you might have: Pepsi and C branded products (e.g. breakfast cereal), different brands of toothpaste, different fa

2. Tabloids (e.g. *The Sun*, *Daily Mail*) have declined more than the broadsheets (e.g. *Th* relative terms. There are many possible reasons for this: perhaps online tabloid con content, or perhaps the privacy/phone-hacking scandal surrounding *The News of th* buying tabloids.

3. In 2005, the circulation of each newspaper (in descending order) was roughly: 3.4m sums to 7.8m in total. By 2015, the circulations were roughly [illegible]m, 1.7m, 0.5m, 0.4m total. This is a fall of around 3m copies, or a 33.5% fall (answers between 2.7m and

4. Some news content is easier to monetise online than others. Publications which offe *Financial Times*) are more likely to have customers willing to pay for a subscription, s information elsewhere. If *The Daily Mail* started charging for access to its website, t much since similar content can be found elsewhere for free.

Test your knowledge...

1. (a) $$XED = \frac{\%\Delta QD\ of\ Good\ A}{\%\Delta P\ of\ Good\ B}$$ (1)
   (b) Change in demand for online news = (0.7 × 6) = (+) 4.2%

2. Possible reasons: reading print newspapers improves information retention, online n with adverts, online newspapers may require readers to click to another page, some reading a paper copy of something to reading online.

Extended-response question

1. A fall in the price of tablets/e-readers would make online news more accessible to m
the 'price' of online news.

Based on this, we would expect that demand for online news would go up, and dem
(since it is a substitute good). There are several factors which might influence the si
- The size of the price fall.
- The extent to which people switch to using tablets/e-readers (i.e. the price elastic
- Many people already have laptops or smartphones that they might use to read
affected by this price change.
- Many people will simply prefer print news, regardless of the cost of devices to

Case Study 7 – China's Pollution Problem

Use the data

1. (a) In 1000, atmospheric CO_2 concentration was about 280 ppm. As of 2000, this
380 ppm. Percentage change is gi

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

T e, t percentage increase in atmospheric CO_2 concentration is 35.7

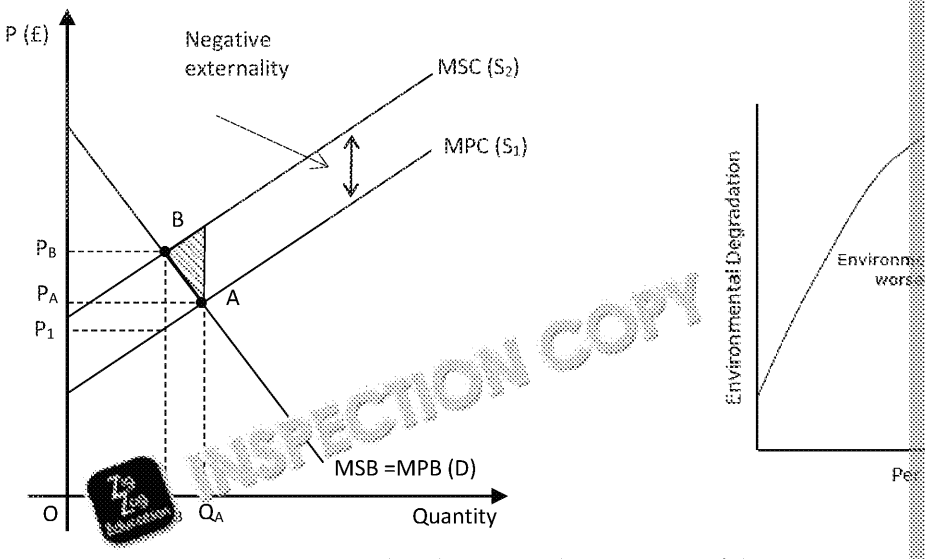
(b) In 2000 average global temperature was about 14.4°C and in 1900 this temper
question is asking for the *level* increase – this is simply a nominal change. The

2. If producers were to internalise the cost imposed on a third party of their production
in their cost of production. Imagine that a manufacturer has to pay for the healthca
to re-fertilise soil destroyed by acid rain, etc. on top of their standard production out
substantial. A firm's natural response would be to decrease production to reduce th
the graph might appear substantially flatter than in the case where industries don't p

Test your knowledge…

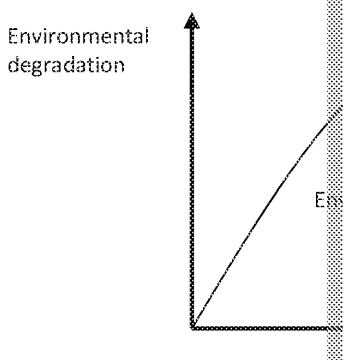
1. (a) A 'negative externality' is a cost imposed on a third party (or external stakehol
transaction. *Producers and consumers are first and second parties respectively
an individual, an organisation, property, etc.*

1. (b) Negative externalities can be represented using the following diagram:



- Diagram demonstrates that the marginal private cost of the production p
social cost of production – (MPC<MSC).
- Market equilibrium is found at the intersection of Demand and Supply (M
given product is being produced and consumed and at a lower price than
- The socially optimal equilibrium is found at the intersection of Demand a
price, P_S, reflects the *true* cost of production and less of the product is co
market. Notice that at this point P=SMC and allocative efficiency is achie
- There is a welfare loss (or deadweight loss) to society because the allocat
implies that there are welfare gains to be made by imposing policies that

2. The Kuznets curve represents a hypothetical relationship between environmental degradation and economic development.
When income per capita is low, e.g. in an undeveloped economy – there is little environmental degradation because there is little production. However, as economies develop and production industrialises, environmental damage increases at an exponential rate – such economies are primarily focused on economic growth and industrialisation. Yet, at a certain point of development, the environment begins to improve as the government begins to regulate production and citizens begin to prioritise personal and environmental health over material wealth.
China is most likely nearing the top of this bell curve. The Chinese government is be the environment but is not quite doing enough yet to improve the environmental



Extended-response question

1. The Chinese government can choose a policy related to one of the following three s
   1. Fiscal Policy, e.g. taxation of pollutant item and/or subsidies for cleaner technol
   2. Market-based incentives, e.g. creating tradeable pollution permits.
   3. Regulatory Measures, e.g. fining companies for non-compliance with legal req levels, etc.

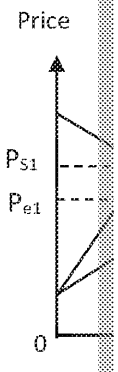
   Each of these strategy approaches will have associated advantages and disadvantage imposes an opportunity cost on the government, and governments tend to think ma Government failures might include: *information failure, regulatory capture, unintend* which exacerbate, rather than ameliorate, the situation of environmental degradati

Case Study 8 – The UK housing market: pulling up the ladder?

Data response questions

1. In 2001, private renting only made up around 10% of tenures, and by 2014 this had increased to almost 20%. This is a doubling of the share of tenures (or a 10 percent point increase).

2. This suggests that average earnings have not changed much over the period (if average earnings had increased in line with house price increases, we would expect the price-earnings ratio to be flatter).



Test your knowledge...

1. This statement in normative, since it is a value judgment (even though many would agree with it!) (1)

2. Allocative efficiency is a concept which refers to p representing consumers' interests (1); p produced only up to the point t consumers equals the marginal c production. (1) It differs from productive eff the specific allocation of across society – it is not concerned with product

3. (a) A e ernality is the cost to third parties that is not reflected in the pri ac e) (1)
   (b) Negative externalities could arise from housebuilding via destruction of the na pollution, for example. (1 mark for each)
   (c) 1 mark for correct axes, 1 mark for showing MSC and MPC (they do not have t showing MPB=MSB, 1 mark for showing how the social equilibrium price and q and quantity, 1 mark for showing welfare loss.

Extended-response question

1. The benefits of this scheme would be that more new homebuyers would be able to
should increase the standard of living of those affected, and it may boost economic
immobility of labour.

   On the other hand, the fact that existing planning rules will have to be scrapped su
external costs to building these homes. This could negatively affect the quality of li
be an opportunity cost to this scheme if the government subsidises the low price of
In your conclusion, you could be either for or against the policy, so long as your arg

Case Study 9 – Should the government tax sugar?

Data response questions

1. The tax is 16.5% of the retail price plus £3.79. 16.5% of £8 is £1.32, so the total am
the total price (rounded to the nearest whole number).
2. Two of the main dangers are: (1) that if people ar[illegible] to smoking, their incon
a rise in imported/smuggled cigarettes th[illegible] tax.
3. At 4% ABV, total tax is 18.37 × (4 ÷ 7) = [illegible] per litre. For half a litre, the tax wou

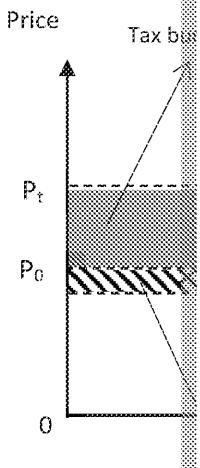
Test your knowledge

1. These [illegible] goods create negative externalities: this is when the social cost of co
private [illegible] metimes these types of goods are called 'demerit goods').
2. (a) (1 mark for method, 1 mark for ans

   (b) This indicates that demand for alcohol is inelastic (since -1 < PED < 0) (1)

Extended-response question

1. With this question the main point you should discuss is how the price elasticity of demand for sugar will affect the success of the policy. If demand is price inelastic, the diagram should look something like that on the right.



   Since demand is price inelastic, the tax increases the price from P_0 to P_t, but quantity demanded only falls a small amount from Q_0 to Q_t, with much of the tax burden falling on the consumer. Since the whole purpose of the tax is to reduce consumption, in this case the tax is ineffective. It may have regressive effects on the incomes of those who consume a lot of sugar.

   As an evaluative point, you could argue that the government could use the tax revenue to help fund greater NHS spending.

   You should identify that if demand were elastic, then the result would be different: in this case, a tax would significantly decrease sugar consumption (which is the intended effect).

   You may argue that a tax would be more effective if it were combined with other mea
such as an information campaign on the dangers of excessive consumption. You may a
sugar food producers are allowed to use in their food is another complementary meas

Case Study 10 – Solar panel subsidies

Data response questions

1. (a) According to the artic[illegible] subsidy costs households £7 each, so for 25 million
   (b) The new cap is [illegible]n, so this is £75 million more.
2. The UK [illegible]ntly higher subsidies than all other G7 countries except for the U
consider[illegible]t the USA's GDP is several times larger than the UK's, so as a propor
the most out of these countries.
3. The original subsidy was 12.47p per kWh. A cut of 84% would mean that the new s
kWh (12.47 – (0.84 * 12.47)).

Test your knowledge...

1. One disadvantage is that it can encourage inefficiencies in firms (1), another is that
of government spending). (1)
2. Possible answers include: information provision, funding research into solar panel t
increases consumer income (1 mark for correct point).

Extended-response question

1. The main advantage of increasing subsidies is that it leads to more energy generatio avoid most of the negative externalities associated with fossil fuel energy generatio negative externality from production diagram).

   Another argument in favour would be that even if costs to the taxpayer are higher i lower prices in the long term once the benefits of renewable energy are realised.

   You should explain the disadvantages of subsidies you stated in question 2: it may e an opportunity cost involved with the subsidy.

   You could mention that the case for subsidising solar panels depends on whether th energy source (you don't need to discuss any of the science behind this: you could s such as wind power may be more effective).

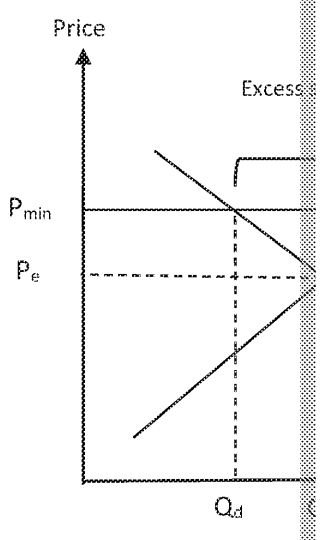
Case study 11 – A minimum price for alcohol?

Data response questions

1. This can be broken down into stages. (They don't have to be done in this order): if t unit rather than 50p, the 40% spirit would have to be at least £16 (4/5 of would have been £12 (3/4 of 16). Then if it were 44% strength, it would ha 10 perc 2). So the final answer is £13.20.
2. This question is very subjective, there's no right answer. You might think that the pro high, so we should be worried. You might think that the proportion isn't too bad, and (but we can't know for sure whether they will keep falling or not). Of course it's a fai people who drink moderate amounts very regularly, which could be just as damaging
3. The 16–24 age group saw the greatest rise in teetotalism; an eight percentage point

Test your knowledge...

1. Your diagram should show the minimum price imposed above the market equilibrium. (1) This leads to an excess of supply over demand (between Q_d and Q_s). (1) 1 mark for correct axes, 1 mark for supply and demand curves. Note that for this question the elasticities of the curves don't matter.



Extended-response question

1. After discussing the effect of imposing a minimum price (see diagram in part 1), and the fact that alcohol is a good that has negative externalities, the key point you should discuss for this question is the price elasticity of demand for alcohol. Based on the diagram in part 1, if demand is highly inelastic then the minimum price will only lead to a small fall in quantity demanded. If this is the case, the policy is likely to be unsuccessful (more money from drinkers will go to the government in re consume more than the socially optimal amount).

   On the other hand, if the price elasticity of dema el ely elastic, then deman will be more successful.

   Some other points you could m nti n in you answer include:
   - In reality, it is lik different groups of people will have different elasticiti
   - Th t c icy will depend on how much higher the minimum price is pr ld change demand more, but it would also penalise occasional/mode
   - You d mention the effect on businesses: it would be good for pubs (who p the minimum) but bad for supermarkets (who probably charge prices below th SWA's argument: businesses that provide cheap alcohol would have less room usually bad for consumers).
   - You could include an externalities diagram, but it is not required.

Case Study 12 – Reforming the NHS

Data response questions

1. The passage states that roughly 18% of government spending goes towards the NH was £750bn, this would be £135bn (0.18 * 750). The deficit was about £2.2bn, whic budget (2.2 ÷ 135 *100). Any answer between 1.5 and 1.7% is acceptable.

2. (a) It would be expected that the deficit would be higher because Jan–March are more health problems (assuming that NHS budgets are not automatically adju
   (b) Given this, the £2.2bn seems like an underestimate. If each three-month peri add up to £3.72bn for the year: way more than predicted, especially if the win

Test your knowledge...

1. In this period the proportion of people saying they were quite or very satisfied incre 70% in 2010, before falling slightly. (1) On the other hand, the proportion of people fell to a low of around 18% in 2010, before picking up again slightly. (1) (You don't n marks: but you must mention whether the trends are going up or down.)

2. Government failure is when intervention by the government results in a net wel intervention by the government creates inefficiencies / market failures).

Extended-response question

1. Some of the benefits of this policy are already mentioned in the article: it should de appointments or missing their appointments, and it should raise revenue for the NH for the NHS by reducing pressure on GPs.

   However, there are ways in which this policy could introduce government failure. F genuine health problems from going to the doctor, perhaps making their conditions the long run (or causing unnecessary deaths).

   You could evaluate this point by arguing that the charge could be means tested (i.e incomes), so that everyone could afford to go to the doctor if they needed to.

   Another potential problem would be administrative costs for implementing such a c revenues. The administrative costs would probably be higher if the charge were me

   You could evaluate the policy by arguing that £5 is too high or too low (e.g. you cou multiplying the price by the average number of visits and the size of the population 5*5*65 million = £1.6bn, assuming that the number of visits does not change. Since deficit, you may argue that this is not high enough, or you may argue that it is a goo

   A good answer should discuss both the benefits and the costs of the policy, and evalu