

2015 specification  
first exams in 2017 (or 16 or 15)

# Data Response Case Studies Volume 2 (2022)

## Theme 1: Introduction to Markets and Market Failure

D Glover

[zigzageducation.co.uk](http://zigzageducation.co.uk)

POD  
11942

Publish your own work... Write to a brief...  
Register at [publishmenow.co.uk](http://publishmenow.co.uk)

Follow us on Twitter [@ZigZagBusiness](https://twitter.com/ZigZagBusiness)

# Contents

<b>Product Support from ZigZag Education .....</b>	<b>ii</b>
<b>Terms and Conditions of Use .....</b>	<b>iii</b>
<b>Teacher's Introduction.....</b>	<b>1</b>
<b>Case Studies .....</b>	<b>2</b>
Elite specialisation: Toyota's takumis .....	2
Inequity in free markets: UK housing crisis .....	4
Irrational consumers: financial management.....	6
Supply-side shocks: rising fertiliser prices .....	8
Volatile prices: negative oil.....	10
Indirect taxation: Hospitality's VAT holiday .....	12
Public or private goods: COVID-19 vaccines.....	14
Falling demand: decline of the high street.....	16
Reforming subsidies: agriculture after Brexit.....	18
Imperfect information: healthcare provision .....	20
Keeping up with demand: university admissions .....	22
Minimum unit pricing: alcohol in Scotland.....	24
<b>Answers .....</b>	<b>26</b>
Elite specialisation: Toyota's takumis .....	26
Inequity in free markets: UK housing crisis .....	27
Irrational consumers: financial management.....	28
Supply-side shocks: rising fertiliser prices .....	29
Volatile prices: negative oil.....	30
Indirect taxation: hospitality's VAT holiday.....	31
Public or private goods: COVID-19 vaccines.....	32
Falling demand: decline of the high street.....	33
Reforming subsidies: agriculture after Brexit.....	34
Imperfect information: healthcare provision .....	35
Keeping up with demand: university admissions .....	36
Minimum unit pricing: alcohol in Scotland.....	37

# Teacher's Introduction

The case studies in this series are designed to support students as they study the Edexcel module *Theme 1: Introduction to markets and market failure*. These case studies cover the Edexcel specification perfectly, and are designed as real-world contexts to complement the theoretical content of the module.

<p><b>Remember!</b> Always check the exam board website for new information, including changes to the specification and sample assessment material.</p>
---

Each case study contains:

- \* **Contextual information:** this is the body text of the case studies, providing the relevant information, facts and figures.
- \* **Data:** each case study contains data presented in a graphical format.
- \* **Data response questions:** for each case study, students are presented with two questions set in response to the data presented. Answers are included.
- \* **Test your knowledge questions:** for each case study, students are presented with two questions designed to mimic short-answer examination questions. Answers are included.
- \* **Extended-response question:** for each case study, students are presented with one question designed to mimic long-answer examination questions. Possible answers are included in summary form.

This resource is designed to be useful to students of all abilities. Students of the highest ability require up-to-date contextual information for use in examination, while for lower-ability students these case studies may complement class activity and help to ground theoretical content in real-world contexts.

These case studies are designed to be up to date for 2022 and provide as contemporary a snapshot of economic discussion as possible. However, it is likely that some themes which are relevant and topical at the time of teaching may not be included. It is therefore advised that these examples are used in tandem with the study of the most recent themes.

I hope this resource can contribute towards an engaging and rewarding learning environment. Best of luck with your teaching!

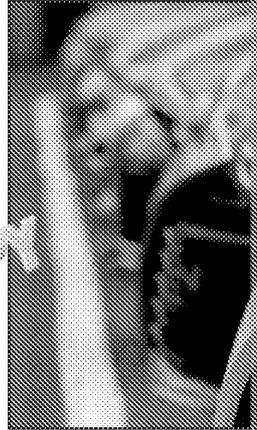
*D Glover, November 2022*

## Elite specialisation: Toyota's takumis

This case study requires knowledge of Section 1.1 – nature of

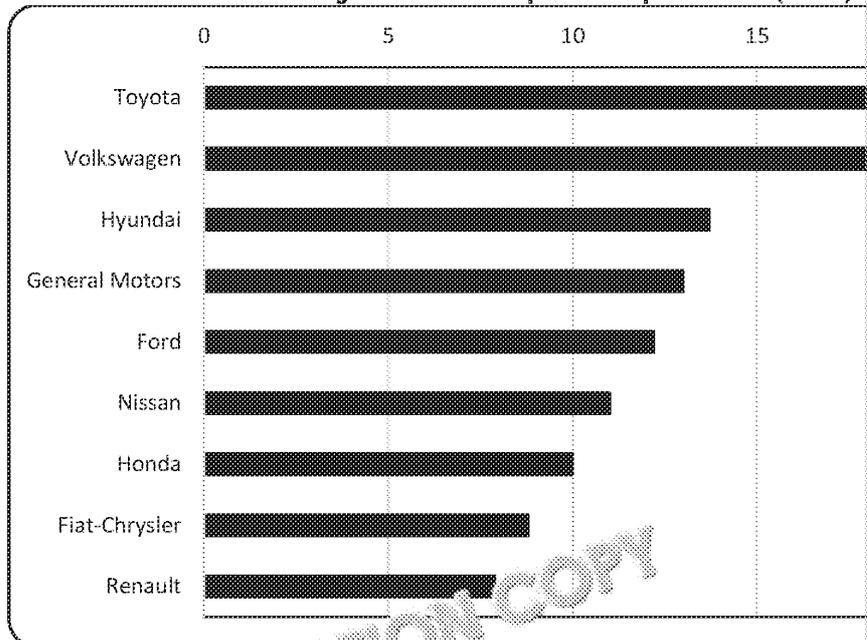
In the 2010s, Toyota definitively became the world's largest car company, overtaking US rival General Motors and German competitor Volkswagen. Like most car companies, Toyota operates a strict division of labour on its assembly lines to ensure each stage of production is conducted as expertly as possible. This helps to increase output while also reducing costs.

However, more unique to Toyota's approach is its investment in around 500 elite workers known as takumis. In Japan, a takumi – roughly translated as an artisan – is a worker who has spent at least 60,000 hours refining their highly specialised skill.



The work of takumis has led to efficiency gains which are seen as critical to cutting productivity. The highly skilled employees are sent around the world to train staff on manufacturing inefficiencies. Many of Toyota's takumis are experts in robotics and methods of automation. Robots deployed on the production line are trained to perform specialised workers, such as takumis.

Figure 1: Vehicles produced per minute (2020)<sup>1</sup>



Toyota's approach to replacing jobs is also pioneering: when workers are replaced on the line, they are retrained and allocated elsewhere in the company. Some may become supervisors and are expected to take over from a malfunctioning machine to ensure there is no downtime. Reallocation of workers ensures the company's sunk costs on employee training are minimized to drive up productivity and output.

Toyota's emphasis on a highly specialised workforce, with an elite class of workers in the production process and driven down costs. Figure 1 highlights how Toyota can produce more vehicles per minute than any other car company in the world.

<sup>1</sup> Source: <https://www.moneyshake.com/shaking-news/miscellaneous/minute-of-motor-manufacturing>

INSPECTION COPY

COPYRIGHT  
PROTECTED



## Use the data

---

1. Using Figure 1, explain the likely price elasticity of demand for Toyota's production.
2. Toyota sold 10.7 million cars in 2021. How many days would it take them to produce 10.7 million cars, and what does this tell us about Toyota's production levels?

## Test your knowledge...

---

1. Show the effect of Toyota's strict specialisation, relative to a carmaker with a range of products, using a production possibility frontier.
2. Show the effect of high worker productivity on a demand and supply diagram.

## Extended response question

---

1. Assess the costs and benefits of a firm introducing specialisation.

INSPECTION COPY

COPYRIGHT  
PROTECTED



# Inequity in free markets: UK housing

This case study requires knowledge of Section 1.1 – nature of

Rising house prices have been among the defining characteristics of the UK economy since 1990 and 2020 house prices grew by almost 350%, compared to inflation of 130% over the same period. As a result, the average house is now worth 7.8 times the average wage, leaving first-time buyers often saving for more than a decade before being able to afford a



There is a notable generational divide in housing ownership. In 1990, 67% of 25–34-year-olds owned their own home, but this has declined to 25% by 2014. For the 16–24 age group, home ownership has fallen from 36% to 9% over the same period. The top 10% own 82% of the UK's property wealth, and 20% own a second home. Second home ownership has increased to one in 10 people owning more than one home. The combination of high house prices and mortgage costs pushing up the price of

The rapidly rising prices can be attributed to a lack of housing supply.

Figure 2 demonstrates that the supply of new housing has fallen since the 1970s as the marketplace has largely taken over the role of property construction. In the 1970s, when housing was built jointly by the market and the state (through local government), the supply of new yearly houses was almost double the level it is now.

The housing market in the UK could thus be seen as an example of the marketplace delivering an inefficient allocation of resources, and also failing to ensure equity among the population. Lack of access to property creates a generational socio-economic divide between asset owners receiving rental income and workers reliant on wages to pay their rents. This can be seen as an example of market failure which produces a range of negative externalities.

Figure 1: Average house prices in UK

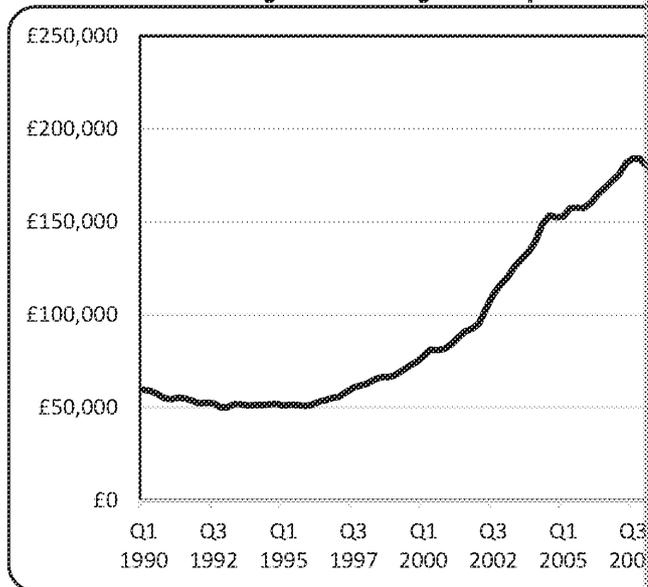
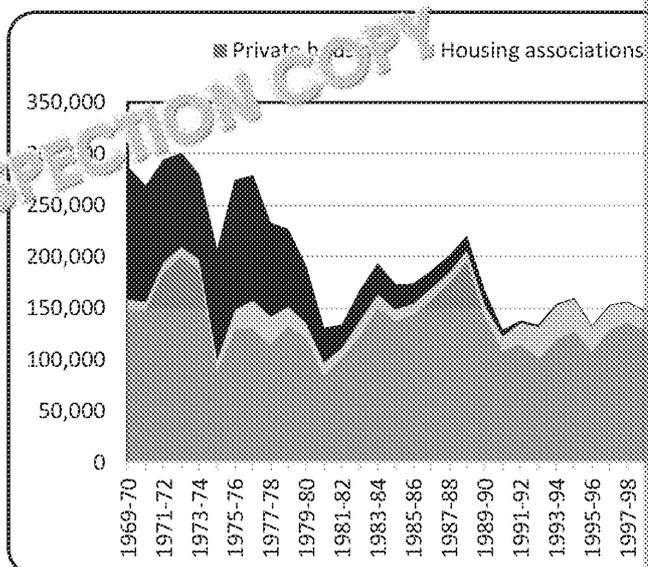


Figure 2: New houses built in UK



INSPECTION COPY

COPYRIGHT  
PROTECTED



## Use the data

---

1. Using Figure 1 and information in the text, calculate the average income at t
2. Figure 2 shows that in 1969 almost half of all housing built was council hous  
the impact of council housing construction on a supply and demand diagram

## Test your knowledge...

---

1. Identify the positive statement and the normative statement, and explain th
2. Explain how housing might be managed differently in a command economy.

## Extended-response question

---

1. Assess whether free markets are always the most allocatively efficient mean  
resource allocation.



INSPECTION COPY



INSPECTION COPY

INSPECTION COPY

COPYRIGHT  
PROTECTED



# Irrational consumers: financial management

This case study requires knowledge of Section 1.2 – how markets work

Orthodox economics tells us that individuals are fundamentally rational and will make decisions in their own self-interest.

This basic tenet of economics is challenged by a more recent field of study: behavioural economics. Findings from psychology in their research, the behavioural economists argue that consumers make economic decisions lacking any rational basis due to inherent emotional responses.

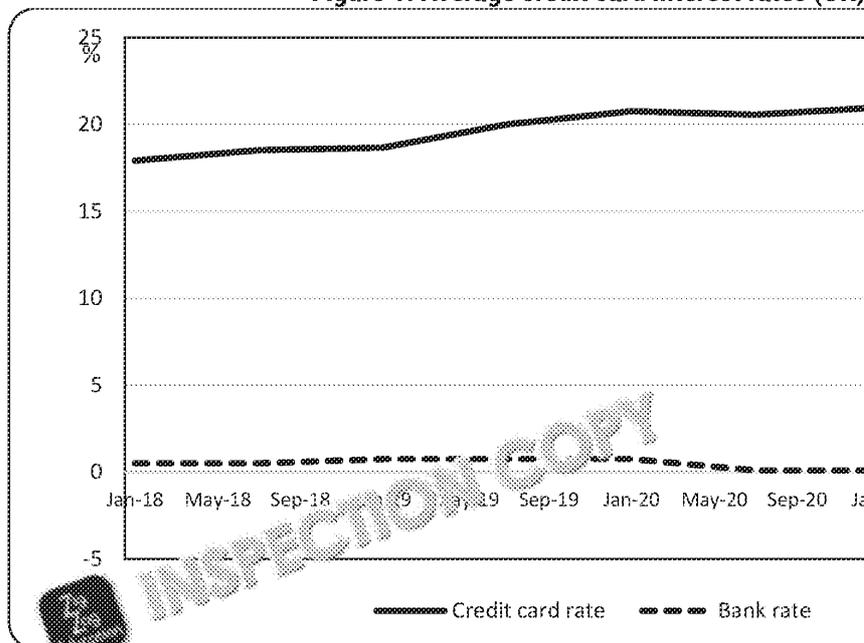
One area in which consumers often make poor or irrational financial decisions is banking. Many consumers struggle with unmanageable personal debts as a result of engaging in excessive spending or unsustainable borrowing – activity triggered by emotional impulses rather than rational choices.

Consumers are also more averse to losses than enticed by gains, meaning they tend to favour saving over investing even when returns on savings are tiny and investments carry minimal risks.

Moreover, consumers frequently make financial decisions based on incomplete information or a misunderstanding of how financial markets work, which further contributes to poor financial decisions.

Figure 1 shows how the average interest rate on credit cards has been at historic highs, even though the Bank of England's base interest rate has seen historic lows. Rational consumers would choose to finance their spending through much cheaper forms of borrowing, yet the number of credit cards issued in the UK over the same period has continued to rise.

Figure 1: Average credit card interest rates (UK)



In recent years, the Financial Conduct Authority (FCA) has encouraged the use of so-called 'nudges' among retail banks to improve consumers' financial decisions. By presenting information in a way that nudges consumers towards better financial decisions, banks can bypass the hardwired cognitive biases of their customers and instead encourage decisions that are financially beneficial to them.

There are signs that some new online-only competitors, such as Monzo and Starling, are adopting such an approach. Customers of the new competitors credit them with improving their financial health, reducing their debts, and as a result the online banks tend to score much more highly in customer satisfaction surveys.

INSPECTION COPY

COPYRIGHT  
PROTECTED



## Use the data

---

1. Calculate the average interest on a credit card bill of £1,300 in September 2018.
2. Give **one** possible reason why credit card interest rates might be so high.

## Test your knowledge...

---

1. What other action could the FCA take to reduce personal financial mismanagement?
2. Explain **two** types of 'choice architecture' advocated by behavioural economists.

## Extended-response question

---

1. Assess the merits of rational choice theory.



INSPECTION COPY



INSPECTION COPY

INSPECTION COPY

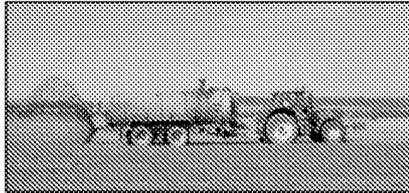
COPYRIGHT  
PROTECTED



# Supply-side shocks: rising fertiliser

This case study requires knowledge of Section 1.2 – how markets work

Perhaps the most important goods that are traded in global supply chains are crops. Cereals are themselves both staple ingredients for human consumption and integral to the feeding of livestock. The overall food supply, and any kind of disruption to the production of crops can easily cause food prices to skyrocket. Rising food prices are frequently a key cause of social unrest and political instability.



Fertilisers play a key role in the production of crops. When demand for crops increases or prices begin to rise, and thus ensuring that crops are, therefore, a fundamental input in the agricultural production of half of humanity's food supplies are reliant on synthetic fertilisers, a process that is highly gas intensive.

In 2021, following the coronavirus pandemic crisis, the price of natural gas began to rise sharply, leading to significant changes in the global supply chain. This drove up the price of synthetic fertilisers dramatically. The price of synthetic fertiliser on the scale demonstrated in Figure 1 is – for many farmers – unsustainable. As a result, they will simply use less fertiliser, which in turn will reduce their crop production and the amount of food. Of course, we can then expect reduced crop production to drive up food prices.

Some farmers are also concerned that reduced use of fertilisers will lower the quality of their crops. Less fertiliser use may also expose crops to greater vulnerability during periods of drought. However, some techniques help crops to survive dry spells.

Figure 2 shows the proportion of the global population who are now reliant on synthetic fertilisers for the production of their food supply, which has grown rapidly since 1950. It also shows the number of people whose food supply is produced using non-synthetic fertilisers, which has remained relatively static given the overall increase in food production. Non-synthetic fertilisers are natural products derived from plants or animals and are often waste products from food production. As a result of their diffuse sources, they are far less exposed to supply-side shocks and thus less likely to trigger price increases. However, natural fertilisers are difficult to scale up quickly, and also carry significant environmental costs, such as water pollution.

Figure 1: Global fertiliser price index

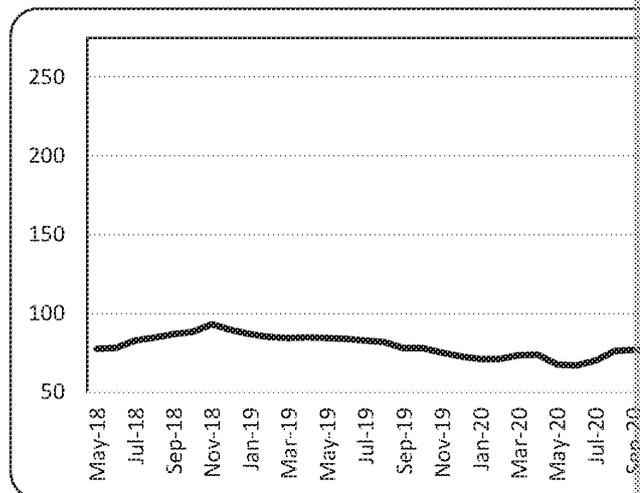
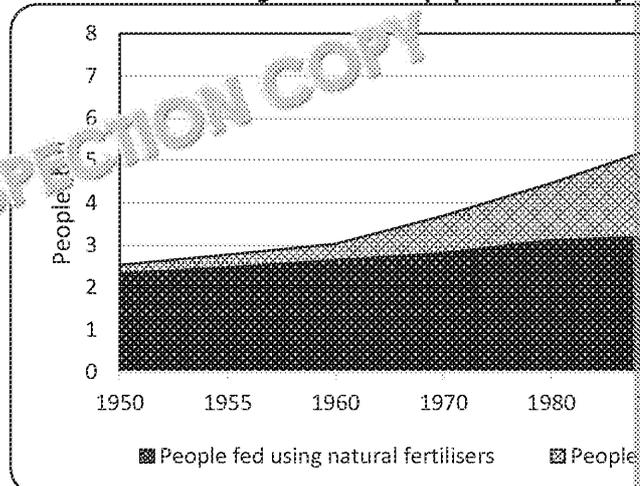


Figure 2: Global population fed by fertiliser



COPYRIGHT  
PROTECTED



<sup>2</sup> Source: [https://ycharts.com/indicators/fertilizers\\_index\\_world\\_bank#:~:text=Fertilizers%20Price%20Index%20is%20](https://ycharts.com/indicators/fertilizers_index_world_bank#:~:text=Fertilizers%20Price%20Index%20is%20)  
<sup>3</sup> Source: <https://ourworldindata.org/fertilizers>

INSPECTION COPY

## Use the data

---

1. Using Figure 2, explain why abandoning synthetic fertilisers might be difficult.
2. Draw the impact of the trend in Figure 1 on the supply curve.

## Test your knowledge...

---

1. Explain the likely elasticity of supply for fertilisers.
2. Explain whether fertilisers are a consumer good or a capital good.

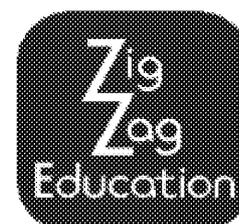
## Extended-response question

---

1. Using a suitable diagram, assess whether a price ceiling could be introduced.

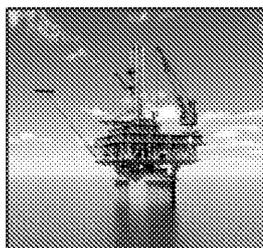
INSPECTION COPY

COPYRIGHT  
PROTECTED



## Volatile prices: negative oil

This case study requires knowledge of Section 1.2 – how markets work



In the middle of April 2020, at the height of the coronavirus pandemic in Europe and North America, something very odd happened to oil markets: it turned negative. On 20<sup>th</sup> April 2020, a barrel of oil was expected to pay the buyer an additional \$37 simply to take it.

In practice, not many exchanges happened quite like that – the price fell day to a still historically low but still positive, \$8.91. So unsurprisingly, the negative valuation related to the ongoing reverberations of the economic coronavirus had created: the closure of large parts of the economy.

One side of the story is the drop in demand. Hundreds of millions of people who would ordinarily be working or travelling were staying at home, foregoing billions of oil-consuming car journeys. In addition, most commercial premises had been closed by the pandemic, which suddenly reduced the demand for energy. And most significantly, with borders being closed to prevent the global spread of the virus, international flights had been grounded. Aviation is a huge consumer of oil, and faced with such a massive collapse in demand the price of crude oil went tumbling.

So that's the demand side – but that doesn't on its own explain the negative price. For this we need to look at supply. At the outset of the pandemic, we can identify what economists might call a 'glut' (an abundance, or overproduction) of oil. Excess oil must be stored somewhere while it is not being consumed, but storage capacity for crude is limited and under these circumstances was running out quickly.

Figure 1: WTI crude oil price

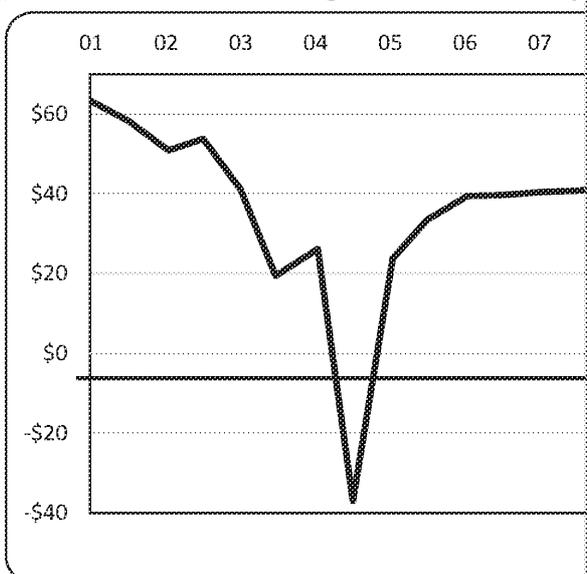
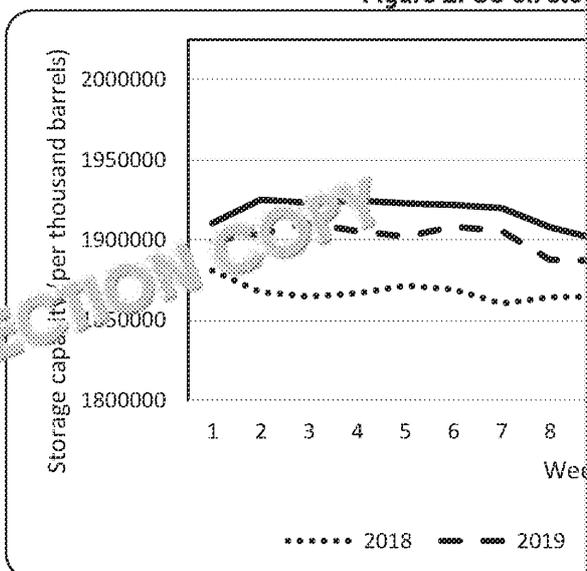
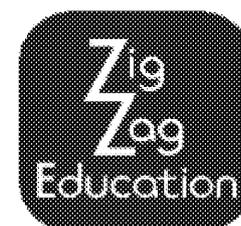


Figure 2: US oil storage capacity



COPYRIGHT  
PROTECTED



<sup>6</sup> Source: <https://fred.stlouisfed.org/series/DCOILWTICO>

<sup>5</sup> Source: <https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WTTSTUS1&f=W>

On top of that, the specificities of the coronavirus pandemic crisis meant that there was a risk of a glut of oil when demand might start to pick up. For oil traders in possession of a good for which there was no demand, and reducing storage, their asset was quickly becoming a liability.

And as they tried to offload their product at ever cheaper prices, they realised that the value of the good was falling. Thus the market determined – on the basis of the day's interaction of supply and demand – that the cost of failing to store unwanted crude was greater than the value of the good itself.

Spooked by the market crash, the major oil producers quickly slashed their production to reduce the global supply of crude oil and end the glut. The move successfully restored the price to pre-pandemic levels by June. But the collapse into negative prices remains a memorable development, even for a famously volatile market like crude oil.

### Use the data

1. Calculate the percentage decrease in the value of crude oil between January 2020 and its lowest point in April 2020 (give your answer to the nearest whole percentage).
2. What does Figure 1 indicate about the elasticity of oil?

### Test your knowledge...

1. Demonstrate the events of 20<sup>th</sup> April 2020 on a demand and supply diagram.
2. Explain why commodity markets are so volatile.

### Extended-response question

1. Discuss the likely impact of the renewable energy sector on the oil market.

COPYRIGHT  
PROTECTED



# Indirect taxation: Hospitality's VAT

This case study requires knowledge of Section 1.4 – government

At the height of the coronavirus pandemic crisis in July 2020, the UK government made the decision to give the hospitality and tourism sector a 15% cut in value added tax (VAT), a duty on goods. Whereas the standard rate of VAT is 20%, government would reduce this rate to just 5%. This would be to help support a sector that was particularly hard hit by the closure of large parts of the consumer economy. A lower rate of VAT remained in place for the industry until March 2022.

The VAT cut enabled providers to choose either lowering their prices or retaining the extra 15% of sales for themselves. Some pubs chose to reduce the price of their alcohol but the cut did not apply, and recoup those losses by raising their food prices, in the hope that

While these measures were temporary, many in the hospitality and tourism sector believe they should be implemented permanently. One reason for this is that many other European countries have lower domestic hospitality sectors, as seen in Figure 1. In addition, the industry is highly profitable and a large employer.

However, VAT exemptions are controversial and their economic benefits are contested. Critics point to the increased administrative costs of such schemes, and argue that instead of offering a range of special reduced rates, the economy would be better off with a lower standard rate.

VAT was first introduced in the UK in 1973 at a rate of 10%. In 1978, VAT generated 7% of the UK's revenue – this figure had more than doubled by the 2000s, making it a key source of government revenue. But higher prices also suppress consumer demand, which in turn can mean less employment and lower productivity, which reduces government revenue in the long run. Figure 2 shows how income tax has fallen as VAT has increased.

Figure 1: VAT rates across

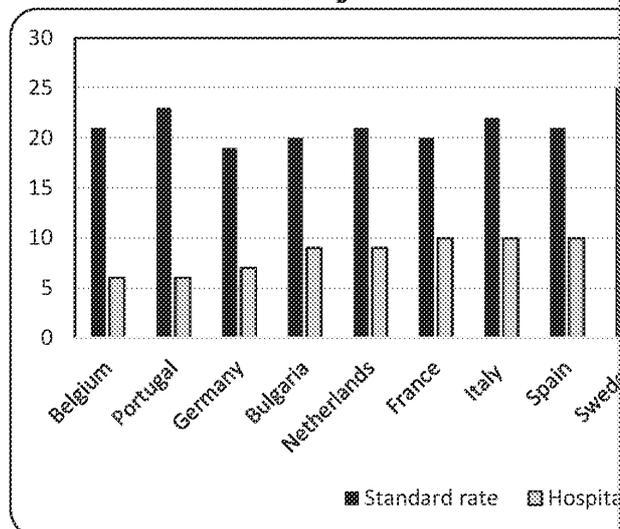
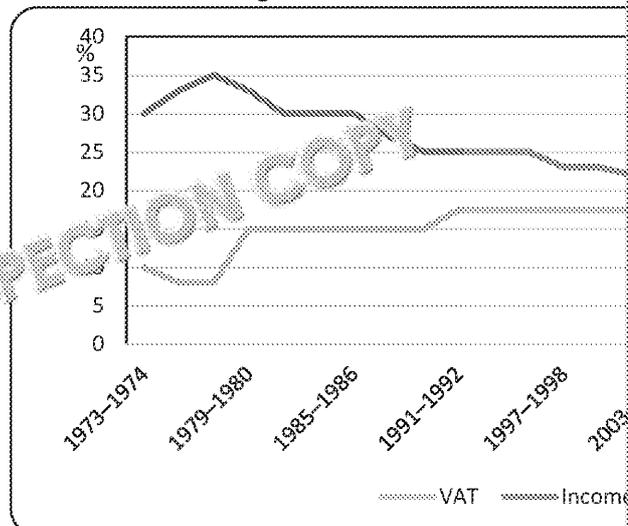


Figure 2: Historic UK rates of VAT



INSPECTION COPY

COPYRIGHT PROTECTED



<sup>6</sup> Source: <https://www.ukhospitality.org.uk/blogpost/1721400/392803/VAT-Rates-for-Hospitality--Leisure>

## Use the data

---

1. What is the median VAT rate of the 14 European countries in Figure 1, and how does it compare to the UK?
2. Give **two** reasons for trends of taxation displayed in Figure 2.

## Test your knowledge...

---

1. Explain why the hospitality and tourism sector is price sensitive.
2. Using a diagram, explain the welfare loss associated with a 1% VAT on hospitality.

## Extended-response question

---

1. Assess the costs and benefits of indirect taxation.

INSPECTION COPY

COPYRIGHT  
PROTECTED



# Public or private goods: COVID-19 vaccine

This case study requires knowledge of Section 1.3 – market failure

The coronavirus pandemic crisis was brought under control, predominantly, as a result of the development of vaccines against the virus. Thus in one sense we can argue that the vaccine is a public good: its benefits – the eradication of a contagious virus – are shared by everyone.

However, the vaccine itself was not globally distributed in the way economists would expect with a public good. It was not available to everyone, and its benefits have not been shared equally. Doses of coronavirus vaccines differed significantly in price, while some were limited and required specific and expensive storage facilities.

In 2021, United Nations Secretary General António Guterres argued in favour of treating the vaccine as a public good, as the vaccine rollout progressed in developed countries but stalled across the rest of the world.

*'It's been a mistake since the beginning that vaccines should be considered as a private good. That they need to be available and affordable to all and that is not just a question of justice but also a question of efficiency. There is no way to defeat a virus that spreads in the developing countries like wildfire and that can risk to mutate.'*

Guterres sought to highlight the extensive positive externalities associated with an equitable rollout of COVID-19 vaccines, as well as the uneven distribution of the good highlighted by Figure 1.

A large proportion of funding for the development of COVID-19 vaccines came from public sources, with the initial development of the UK-based Oxford/AstraZeneca vaccine almost entirely publicly funded. However, large private firms with greater experience in the manufacture and distribution of pharmaceuticals are incentivised to ensure that goods are commercially viable.

Figure 2 demonstrates the expected revenue for each major COVID-19 vaccine producer over a projected five-year period.

Figure 1: % of population vaccinated

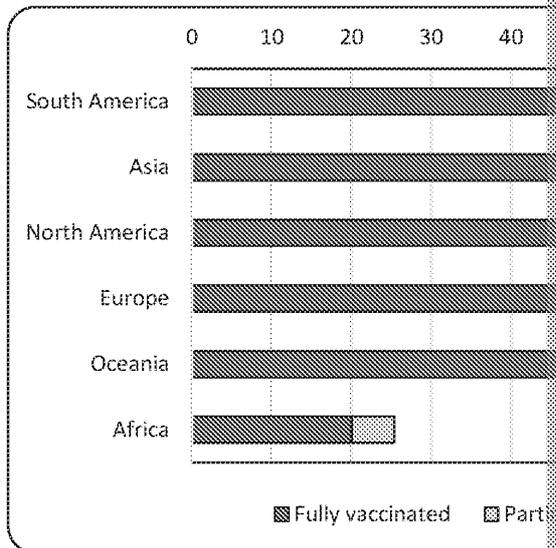
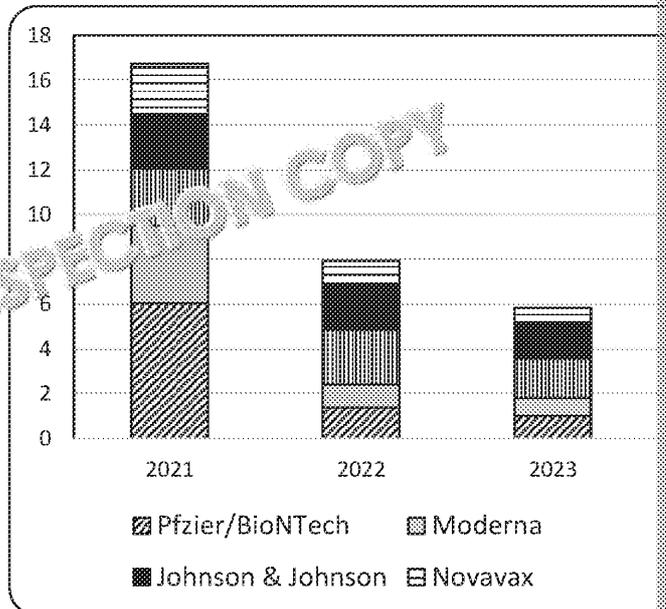


Figure 2: Forecasted global revenue



<sup>7</sup> Source: <https://www.wsj.com/articles/covid-19-vaccine-makers-to-face-challenges-when-recognizing-revenue>

INSPECTION COPY

COPYRIGHT PROTECTED



## Use the data

---

1. Based on figures 1 and 2, give **two** reasons why pharmaceutical companies incentivised to produce vaccines.

## Test your knowledge...

---

1. Define a 'public good'.
2. Explain the free rider problem.
3. Identify **four** positive externalities associated with vaccines.

## Extended-response question

---

1. Assess whether vaccines are a public good.

INSPECTION COPY

COPYRIGHT  
PROTECTED



# Falling demand: decline of the high

This case study requires knowledge of Section 1.2 – how m



High-street shops in the UK have long been viewed as a barometer of the consumer economy in 2020, in response to the accelerated this trend. In that year alone, major brands *Dorothy Perkins, Peacocks, Harveys, Monsoon, Debenhams* and *Oasis* fell into administration.

These big firms are just the tip of a larger iceberg. Store openings in the first six months of 2020 were down by 11,000, and are taking place disproportionately in more deprived regions of the country. The extent to which high-street retailers have suffered has been the worst year in recent history.

The other side of the coin is the growth of online retail. Online retail has grown dramatically in the UK. From barely registering a presence in the retail market at the start of the new millennium, online sales in 2020 had shot up to a third of market share, with no sign of the trend being temporary. As Figure 2 demonstrates, even before the coronavirus pandemic, online retail was growing at a consistent rate. Moreover, since the UK has reduced coronavirus restrictions on retail, online sales remain stable at a significantly higher level than the historic trend rate.

High-street stores have struggled to adapt to these rapidly changing consumer trends, though some have embraced online retail more successfully than others. The retailer *Next*, for example,

was an industry pioneer and has built a strong and competitive online presence. This was evident during the pandemic, in which it managed to maintain its finances of its high-street operations. This was evident during the pandemic, in which it managed to maintain its finances of its high-street operations. This was evident during the pandemic, in which it managed to maintain its finances of its high-street operations.

Online retail offers a range of non-price competitive advantages for consumers; however, the main advantage remains lower prices. Online retailers can charge less due to low production costs and no high-street competitors.

Figure 1: UK store openings

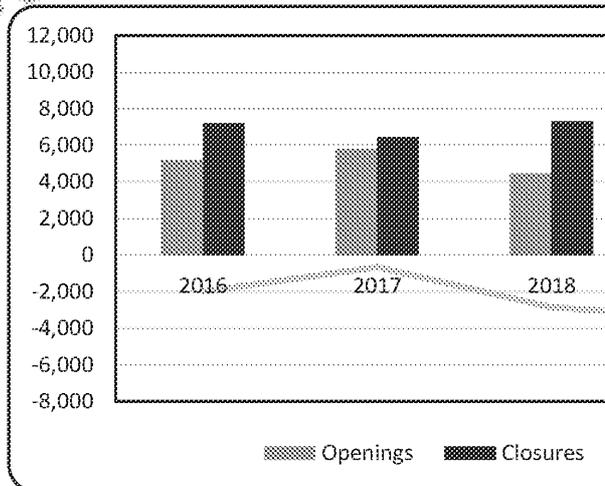
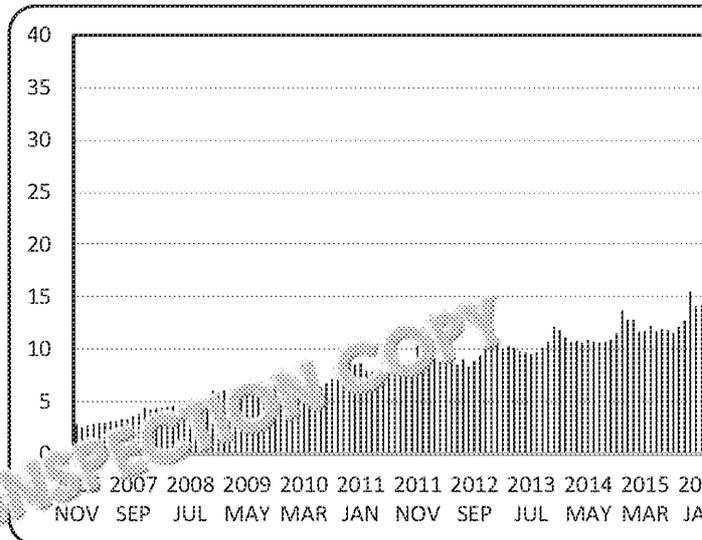


Figure 2: Online sales as a % of UK retail sales



COPYRIGHT  
PROTECTED



INSPECTION COPY

## Use the data

---

1. Calculate the percentage increase in online sales according to Figure 2 between 2006 and January 2021.
2. Draw and annotate a demand curve demonstrating the trend in Figure 2.

## Test your knowledge...

---

1. Identify **two** non-price competitive advantages online retail has over high-street retail.
2. Explain why the production costs for online retailers are lower.

## Extended-response question

---

1. Assess whether online retail reduces asymmetric information.

INSPECTION COPY

COPYRIGHT  
PROTECTED



# Reforming subsidies: agriculture after Brexit

This case study requires knowledge of Section 1.2 – how markets work

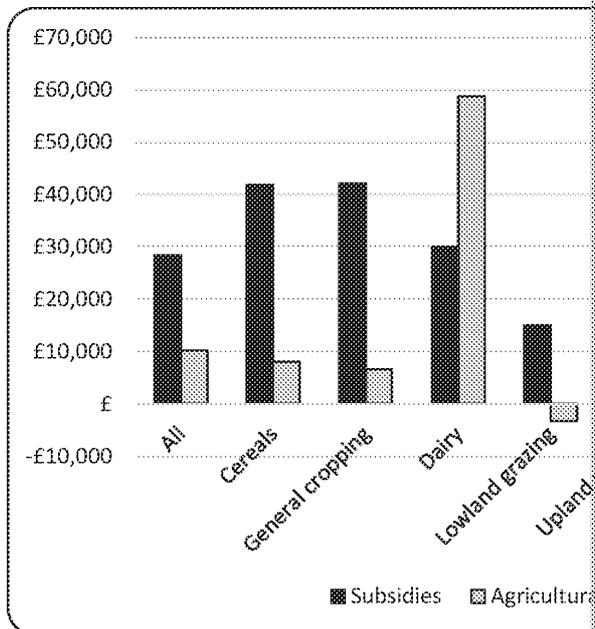


The European Union's Common Agricultural Policy (CAP) is the institution's budget, handing out more than €300 billion across Europe. The UK's agricultural producer support programme, receiving a total of £3 billion between 2014 and 2020, is to safeguard Europe's food supply and protect farmers from the whims of market forces.

As the UK left the European Union in 2020, the government has introduced a new Basic Payment Scheme (BPS) – while a longer-term solution is still being sought. Without replacement, many of the UK's farmers will struggle to make their operations financially viable. Figure 1 indicates how dependent UK farmers are on subsidies.

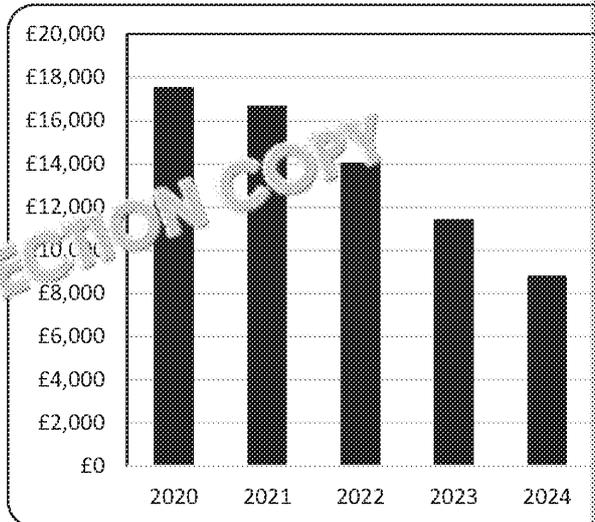
The CAP is criticised for having a destructive environmental impact by encouraging unsustainable forms of land use on an excessive scale, and for producing excess supply leading to food waste. The UK's proposed replacement comprises a number of schemes designed to encourage more sustainable forms of land use. These include a Landscape Recovery Scheme, in which farmers are paid to reforest their land, and a Sustainable Farming Initiative, which remunerates farmers for environmentally friendly agricultural practices.

Figure 1: Average UK farmers income by farm type



The Basic Payment Scheme is scheduled to be phased out over a period of eight years as part of the transition towards the new, more sustainable schemes. Figure 2 shows the phasing out process for an agricultural producer currently receiving £17,500 in subsidies. Farmers complain that there is not enough clarity about the new schemes, and that the subsidies available to them after the transition will be less valuable.

Figure 2: BPS subsidies phasing out



In addition, according to a parliamentary committee, the government has 'not explained how the Scheme's changes in land use will not simply result in more food being imported and food production being "exported" to countries with lower environmental standards.'

<sup>8</sup> Source: <https://www.natwest.com/business/insights/sector-trends/agriculture/farm-business-management/>

INSPECTION COPY

COPYRIGHT PROTECTED



## Use the data

---

1. Calculate the percentage of an average UK farmer's total income that come (give your answer to the nearest whole percentage).
2. Draw and annotate a diagram demonstrating the impact of the phaseout in

## Test your knowledge...

---

1. Identify consumer and producer surplus on the diagram you have drawn.
2. Explain **two** reasons why subsidies can increase cost.

## Extended-response question

---

1. Assess whether the UK government should subsidise certain types of land use.

INSPECTION COPY

COPYRIGHT  
PROTECTED



## Imperfect information: healthcare p

This case study requires knowledge of Section 1.3 – mark

The content of this case study is adapted from the UK Parliament's Scrutiny Unit in accordance v

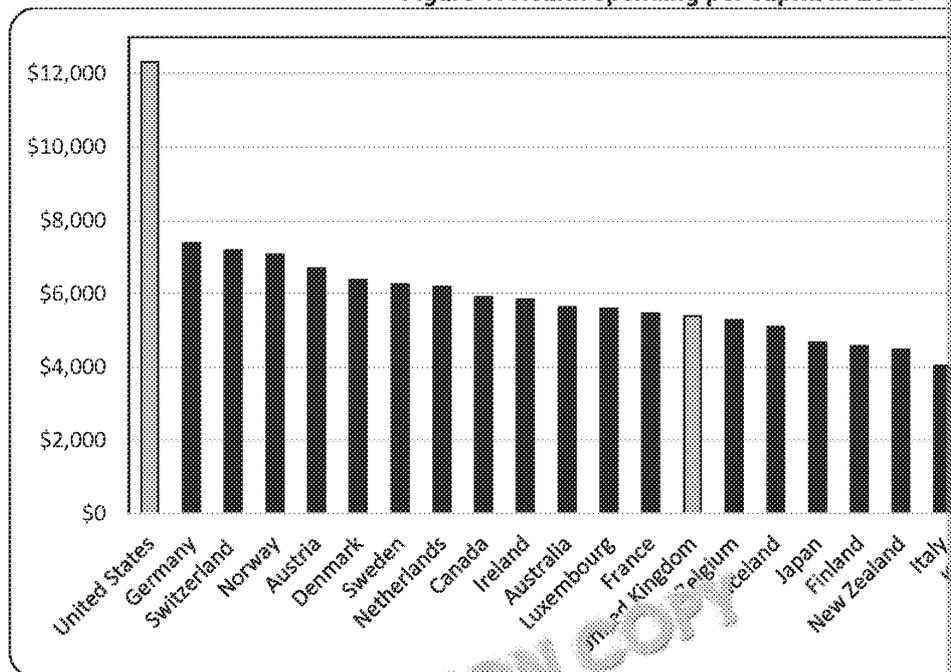
Healthcare provision is an area in which imperfect information presents a consistent problem. Regardless of the economic model that is followed for healthcare provision, there is a problem of asymmetric information: the healthcare professional is almost certain to have significantly greater knowledge of the service being provided than a patient. In particular, the patient is not well placed to judge the quality of the service they are being provided with.



In the USA, healthcare is provided as a private good, accessible through health insurance schemes. This creates a number of additional information problems. The patient, often already unable to judge the quality of the service, is also unable to judge the value for money of the service being provided. In a private market, the incentive is not necessarily to provide the highest quality service, but rather may be to minimise

This dynamic can result in a misallocation of resources. Figure 1 demonstrates how health spending per capita, is far greater than in comparable OECD countries. One reason for the increase in health spending in the USA is the overprescription of medications by healthcare professionals in order to boost re

Figure 1: Health spending per capita in 2021<sup>10</sup>



Other information issues with a private insurance-based private healthcare system are moral hazard and adverse selection. Moral hazard is the incentive to take greater risks, knowing that protection is another form of insurance. Adverse selection is an information imbalance referring to consumers prone to poor health purchasing insurance policies.

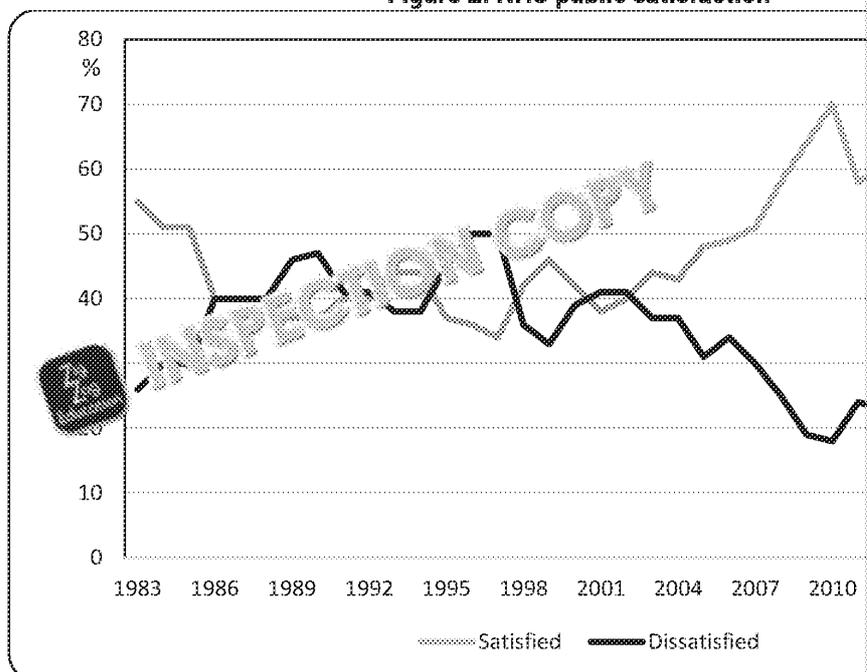
These are among the reasons why healthcare is treated as a public good in the UK. In the UK healthcare provision is free from information failure. One problem for an organisation like the National Health Service is limited resources: decisions may be influenced by the availability of resources, which may reduce the quality of care offered.

<sup>9</sup> Source: <https://www.parliament.uk/globalassets/documents/commons/Scrutiny/SU-Economics-in-practice>

<sup>10</sup> Source: <https://www.kingsfund.org.uk/publications/public-satisfaction-nhs-social-care-2021>

Determining the quality of care being offered is equally difficult. Without a simple way in which the market mechanism provides, investment decisions on the part of the government are difficult. Unlike private providers, the NHS must also consider the marginal social benefit of health care. These decisions are far more complex than simply allowing market forces to determine the level of care.

Figure 2: NHS public satisfaction<sup>11</sup>



### Use the data

1. Explain why information gaps may have led to inflated cost of US healthcare.
2. Give a possible reason for the collapse of NHS public satisfaction since 2007.

### Test your knowledge...

1. Using a suitable diagram, explain the relationship between healthcare provision and productivity.
2. Explain why adverse selection in the insurance market is an unusual form of asymmetric information.

### Extended-response questions

1. With the aid of a diagram, discuss the benefits and costs of information gaps.

<sup>11</sup> Source: <https://stats.oecd.org/Index.aspx?DataSetCode=SHA>

# Keeping up with demand: university admissions

This case study requires knowledge of Section 1.2 – how markets work – and

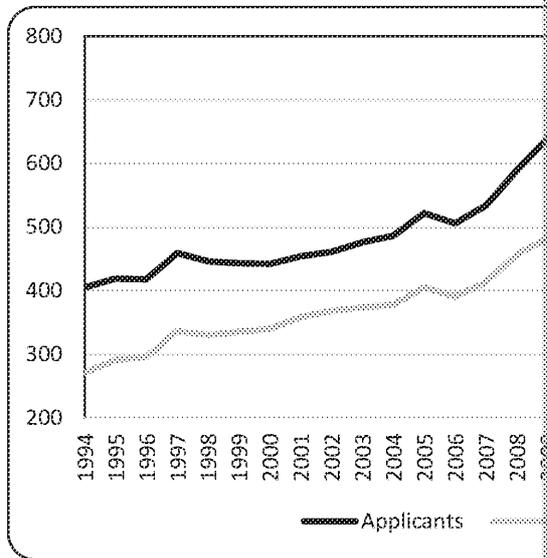


University admissions among British schools. In 2008, 320,000 18-year-olds applying for a place in UK universities – a figure that has risen to 650,000 in 2009, with only 33% of 18-year-olds applying in 2008. The number of applications and admissions to UK universities has risen sharply since 2004.

The increases in admissions come despite government policies to promote alternatives to university education, such as further education colleges, and also despite the introduction of the higher education maintenance grant and the introduction of the higher education maintenance grant.

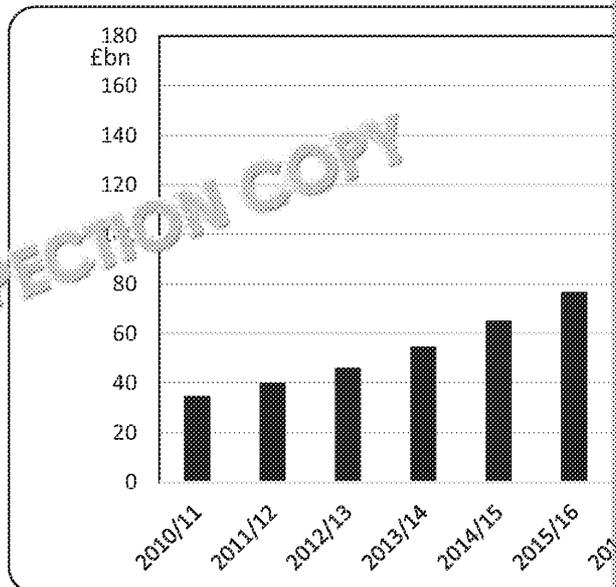
A number of new reforms to university admissions have been announced, including a lowering of the income threshold at which students must make repayments, an increase of a decade in the period before student debt is written off, and a proposal to withhold student finance from applicants without GCSEs in English and Maths. A requirement for prospectuses to include the percentage of graduates who enter employment after receiving their degree has also been suggested.

Figure 1: UK university applications



The government estimates that 70% of students will fail to repay their debts as they will not earn above the threshold for a long enough period. Figure 2 highlights the rising levels of student debt in England since the cap on tuition fees was trebled.

Figure 2: Outstanding student debt



At the same time, the labour market for graduate jobs continues to be highly competitive. It is estimated that in 2015, there were 40 graduates for every graduate job available. This limited supply of graduate jobs means that many graduates end up retraining or simply remaining in lower paid, insecure work.

<sup>12</sup> Source: <https://www.statista.com/statistics/284230/university-applicants-in-the-united-kingdom-uk/>  
<sup>13</sup> Source: <https://www.statista.com/statistics/750679/outstanding-amount-in-student-loans-uk/>

INSPECTION COPY

COPYRIGHT  
PROTECTED



## Use the data

---

1. Draw the trend demonstrated in Figure 1 on the demand curve.
2. Calculate the percentage increase in university applicants between 1994 and 2004.

## Test your knowledge...

---

1. Why might demand for university education have increased, relative to other higher education?
2. Explain the elasticity of demand for university education.

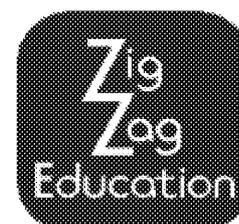
## Extended-response questions

---

1. Assess whether increased costs for students represent government failure.

INSPECTION COPY

COPYRIGHT  
PROTECTED



# Minimum unit pricing: alcohol in Scotland

This case study requires knowledge of Section 1.4 – government

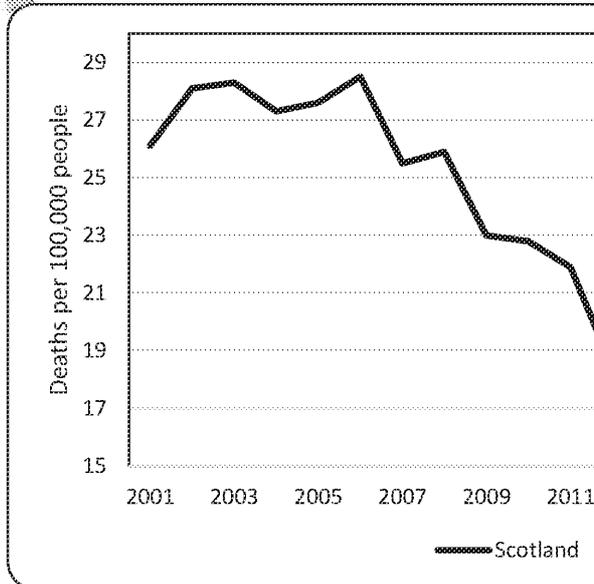


In 2018, the Scottish government introduced minimum unit pricing (MUP), a five-year legal battle with the Scotch Whisky Association and other drink producers. Legislation passed in 2018 set a minimum price of 50 pence per unit of alcohol, along with high duties on all sales, and the minimum prices

The Scottish government argues that prior to the pricing, or MUP, alcohol in Scotland was sold at an exceptionally low price, which did little good. Between 1987 and 2018, alcohol became 54% more affordable across the UK, and overtook pub drinking in popularity, as supermarket chains drove down the price of alcohol.

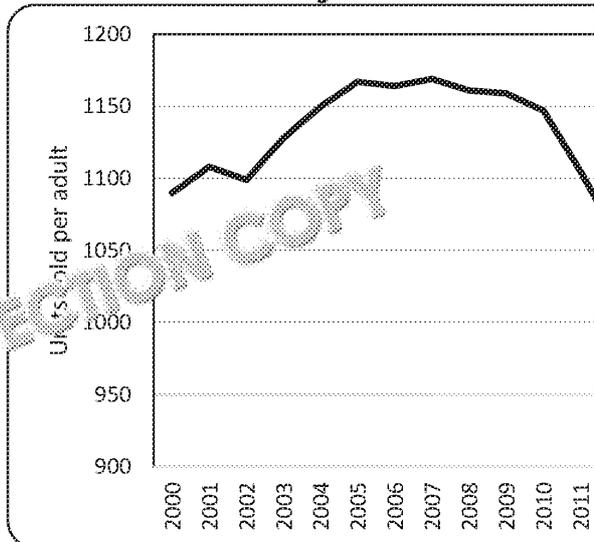
The drink-related death rate in Scotland is significantly higher than the rest of the UK. The government estimates that after five years of the minimum pricing policy, there will be 400 fewer alcohol-related deaths, and 8,000 fewer alcohol-related hospitalisations. However, a report released in June 2022 by Public Health Scotland found that there is no evidence to suggest that minimum unit pricing is changing the behaviour of heavy drinkers in a uniform way. Figure 1 shows a small increase in alcohol-specific deaths since 2018.

Figure 1: Alcohol-specific deaths



The Scottish government argues that the minimum price needs to be set at a higher rate in order to shift the habits of heavier drinkers, favouring pricing of 65p per unit. And it argues that alcohol sales overall have reduced since MUP was introduced, as shown by Figure 2. However, critics argue that MUP has shifted heavy drinkers into bars and undermines economic growth.

Figure 2: Alcohol sales in the UK



Following the policy being introduced in Scotland, Wales introduced MUP in 2020, and Ireland also adopted the policy in 2022.

<sup>14</sup> Source: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/intheunitedkingdom/registeredind2020#alcohol-specific-deaths-by-uk-constituent-country>  
<sup>15</sup> Source: <https://publichealthscotland.scot/publications/mesas-monitoring-report-2022/>

INSPECTION COPY

COPYRIGHT  
PROTECTED



## Use the data

1. Using figures 1 and 2, look at the trends in alcohol-specific deaths and sales. Do you think MUP is having an impact?
2. Calculate the percentage decrease in Scottish alcohol sales between 2002 and 2012. In 2002, alcohol sales were at 935 units per adult.

## Test your knowledge...

1. Using a diagram, demonstrate the impact of minimum pricing on supply and demand.
2. Explain **two** costs and **two** benefits of minimum pricing.

## Extended-response questions

1. Assess the likely consequences of an increase of the MUP to 65p per unit for light and for heavy drinkers.

INSPECTION COPY

COPYRIGHT  
PROTECTED



# Answers

## Elite specialisation: Toyota's takumis

### Data response questions

1. Toyota's cars are likely to have a high price elasticity of demand as there are so many car makes. Figure 1 highlights how 116.3 cars are produced every minute by just nine car makes. Toyota's cars are likely to have a high price elasticity of demand if they are a large proportion of a consumer's expected buying a new car.
2. Toyota produces 20 cars per minute  $\times 60 = 1,200$  cars per hour  $\times 24 = 28,800$  cars per day. Toyota's production of cars to exceed 10.7 million at a national level is 28,800 cars per day. As the most cars of any carmaker, Toyota sold more cars than any other carmaker produced in 2021.

### Test your knowledge

1. Your PPF should show a shift to the right of the PPF as shown. Award 1 mark for a correct PPF diagram, 1 mark for drawing an initial and an expanded PPF and a further 2 marks for drawing the pivot.
2. You should show a shift to the right in supply, resulting in a lower market price and higher quantity supplied. Award 1 mark for correct labelling, 1 mark for showing shift correctly, 1 mark for identifying initial equilibrium and 1 mark for identifying new equilibrium.

### Extended-response question

1. The primary benefit, as established, is that the production process should increase in efficiency. Workers will become more proficient in their craft, and able to perform it at faster speeds. There should be less wastage during production and sunk costs in training will provide a better return on investment. In the long run, it may also encourage capital investment, which will save on labour costs.

Costs may include worker boredom and alienation leading to low motivation and dragging down productivity. Firms may also become very reliant on specialised workers, and incur greater costs if they decide to leave. Specialisation may also increase the risk of structural unemployment as workers have not diversified their skill base.

Cars produced  
by competitor

Pr

P<sub>1</sub>

P<sub>2</sub>

INSPECTION COPY

COPYRIGHT  
PROTECTED



## **Preview of Answers Ends Here**

---

This is a limited inspection copy. Sample of answers ends here to stop students looking up answers to their assessments. See contents page for details of the rest of the resource.