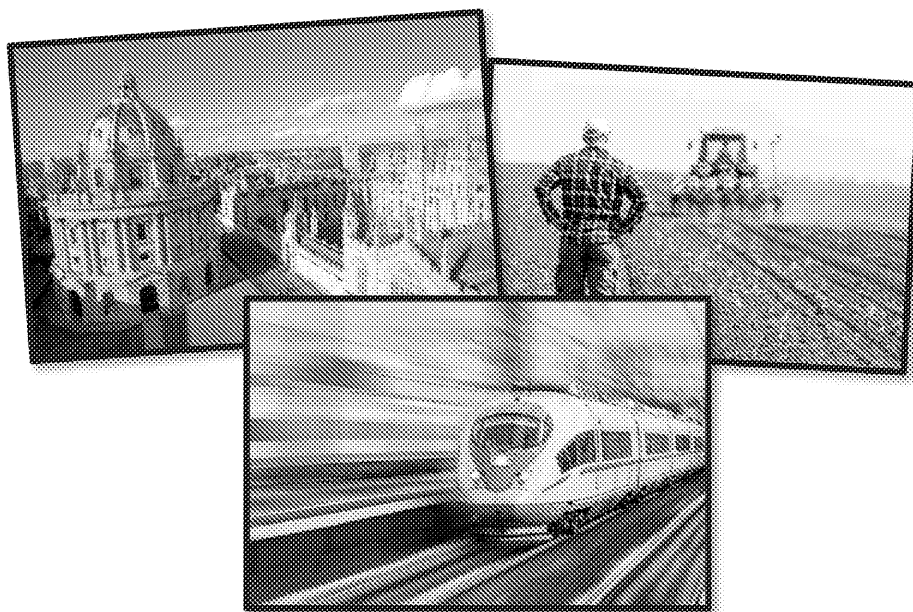


2015 specification
first exams in 2017



Data Response Case Studies

Theme 4: Making markets work

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Teacher's Introduction

The case studies in this series are designed to support students as they study the A Level Economics Edexcel B module *Theme 4: Making markets work*. These case studies cover the Edexcel B specification perfectly, and are designed as real-world contexts to complement the theoretical content of the module.

Remember!

Always check the exam board website for new information, including changes to the specification and sample assessment material.

Each of the 12 case studies contains:

- * **Contextual information:** this is the body text of the case studies, providing the relevant information, facts and figures.
- * **Data:** presented in a graphical format.
- * **Use the data questions:** students are presented with questions set in response to the data presented. Answers are included.
- * **Test your knowledge questions:** students are presented with questions designed to mimic short-answer examination questions. Answers are included.
- * **Extended-response question:** students are presented with a 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.

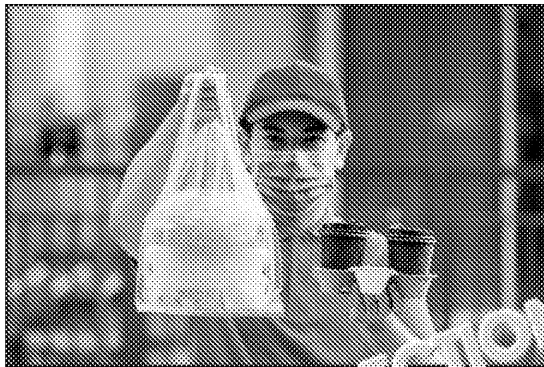
These case studies are designed to be up to date for 2023 and provide as contemporary a snapshot of economic discussion as possible. However, it is likely that some themes which are relevant and topical at the time of teaching may not be included. It is therefore advised that these examples are used 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!

May 2023

Perfect competition: Deliveroo competition

4.1 Competition and market power

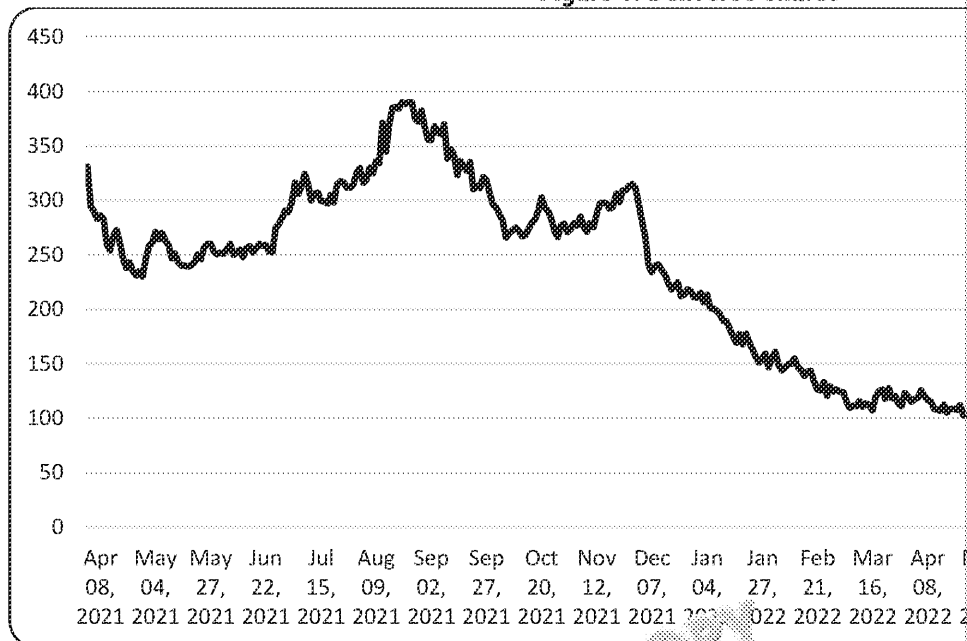


Perfect competition is a theoretical world examples of markets that are. One possible contender is the stock

The stock exchange is a global market and sellers trade shares in companies. means you have a small stake in the company. Also, well, the share becomes 'company stock' in a company is essential means the total number of shares

Companies benefit from being on the stock market as it gives them access to funding. Canny investors using stock market information freely available on the Internet, can guess the movement of share prices. Buying and selling at the right time can be very profitable. In April 2021, Deliveroo went public on the London Stock Exchange (LSE). It opened at a price of 390 pence per share, with an initial value of £7.6 billion. However, by April 2022, the firm's shares, suggests that going public was a mistake.

Figure 1: Deliveroo shares



Deliveroo's value has fallen significantly since its initial valuation. One argument made to explain this is that the company was overvalued prior to going public. Investors were put off by Deliveroo's 'gig economy' model, which is increasingly facing scrutiny from regulators due to the treatment of workers in similar industries. Another argument is that the initial price set for shares didn't reflect the fact that the company was already becoming less attractive to investors.

As such, once subject to the realities of supply and demand that are laid bare on stock exchanges, the price fell considerably, before eventually stabilising at a much lower level of around 80 pence.

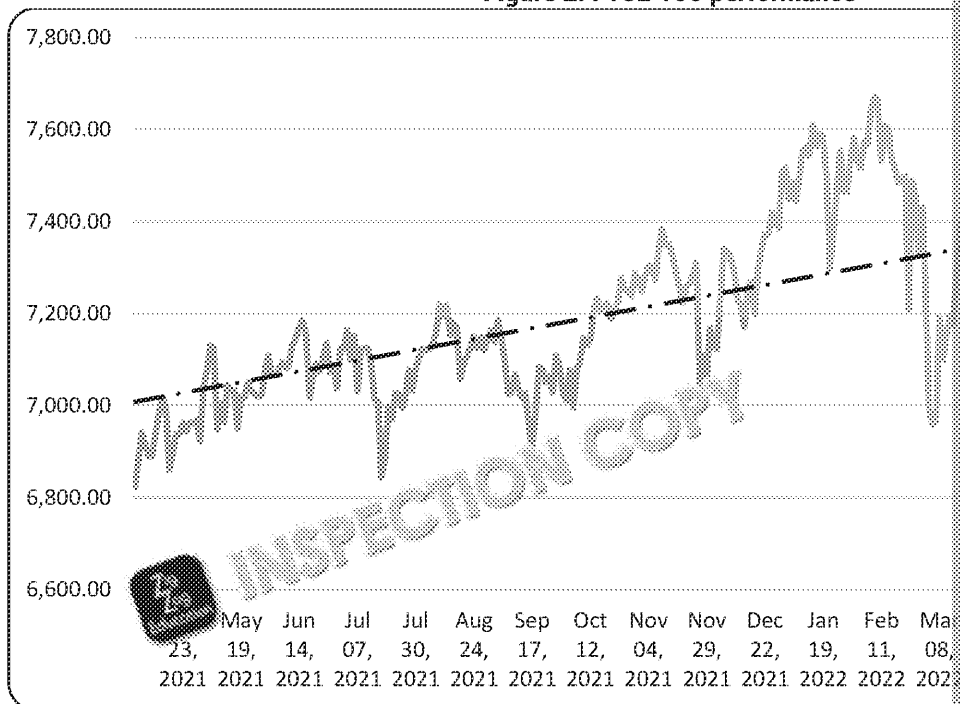
Deliveroo points broadly to an unfavourable economic environment to explain the collapse. But how can we bear this out? Figure 2 shows the overall performance of the FTSE 100 – an index of the London Stock Exchange – over the same period.

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Figure 2: FTSE 100 performance¹



In stock market jargon, a 'bear' market is one in which prices have fallen to 20% below a previous peak. A bull market is characterised by rising prices.

As we can see, the FTSE 100 has fluctuated quite significantly in this time, but the general trend is upwards, indicating an overall increase in the value of the firms, though also a sharp decline from September 2022 onwards, which could be entering a bear market.

Use the data

- Look at Figure 1. In December 2021 do you think there were more seller or buyer orders for Deliveroo shares?
 - Suppose you owned 500 shares in Deliveroo. Calculate the change in value of your shares from April 2021 and October 2022.
- If the FTSE 100 index reached 8,500, what number would it have to reach to be considered a bull market?

Test your knowledge...

- Explain **two** possible examples of perfect competition (other than agriculture).
- Using revenue and cost curves, explain the long-run equilibrium of a firm in a perfectly competitive market.

Extended-response question

- Evaluate how well the stock market exhibits the characteristics of perfect competition.

¹ <https://www.core-econ.org/the-economy/book/text/08.html>

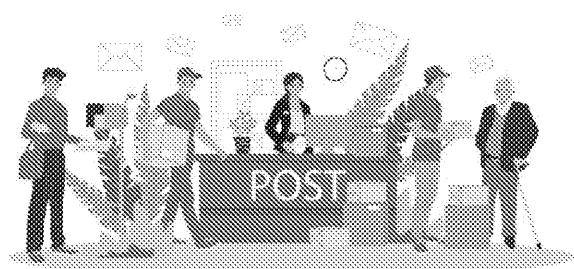
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Contestable markets: growth in postal competition

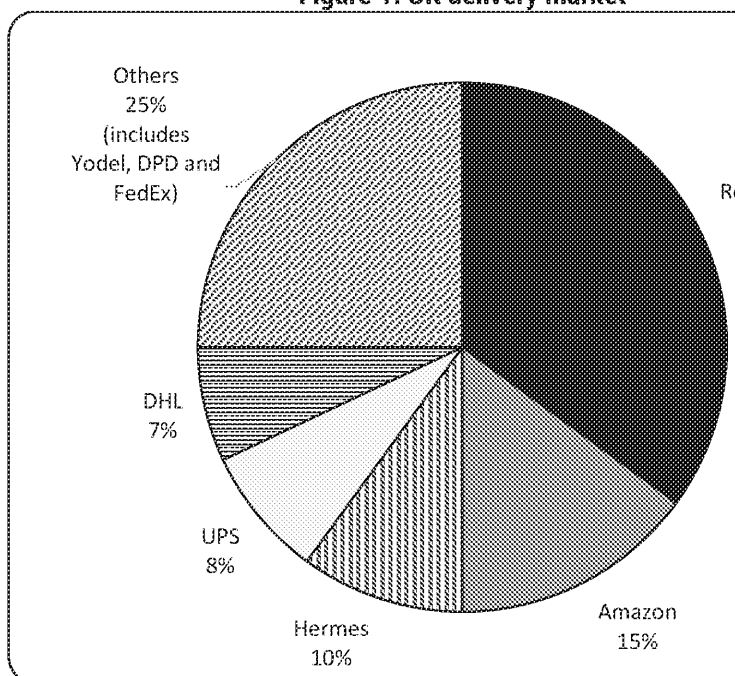
4.1 Competition and market power



An important feature of many markets is the ability to enter and exit the industry. A contestable market is one in which the threat of entry by other firms is sufficient to ensure that existing firms play prices and output as if they are in perfect competition.

One of the most recent years is the delivery and postal market. Previously, mail was regarded as something which in the UK was dominated by Royal Mail. However, the rise of online retail and e-commerce has changed the nature of the industry and lowered the barriers to entry. Figure 1 shows the market share of the major firms in the UK delivery market.

Figure 1: UK delivery market



The major reason for growing contestability in the market is the emergence of e-commerce. More people now make purchases online, and the industry had a value of £3 billion in 2019 – 0.01% of GDP. The rapidly growing industry creates a variety of opportunities for new courier firms.

However, Royal Mail has also lost its dominance in part due to its obligation to provide universal service during a period in which demand for letter deliveries has collapsed. The Universal Service Obligation is mandated by law and requires that Royal Mail must provide a six-day service for letters, even on Sundays, based on local delivery points. This is not permitted for other firms.

While this is seen as a valuable public good, it also limits Royal Mail's ability to compete with other firms as letter deliveries are less profitable than parcel services.

The big market climber over the last decade is Amazon, which only launched delivery in the UK as recently as 2014. Based on current trajectories, it is set to take on Royal Mail's market share in the next decade.

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Use the data

1. Using the article, identify one possible barrier to entry into the UK delivery service industry.
2. Can the UK's delivery service industry be regarded as an oligopoly?

Test your knowledge...

1. Explain **two** features of perfectly contestable markets.
2. Explain what is meant by the term 'sunk costs', using a relevant example.

Extended-response question

1. Evaluate the extent to which the market for delivery services is contestable.

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End of a monopoly: Intel's emerging

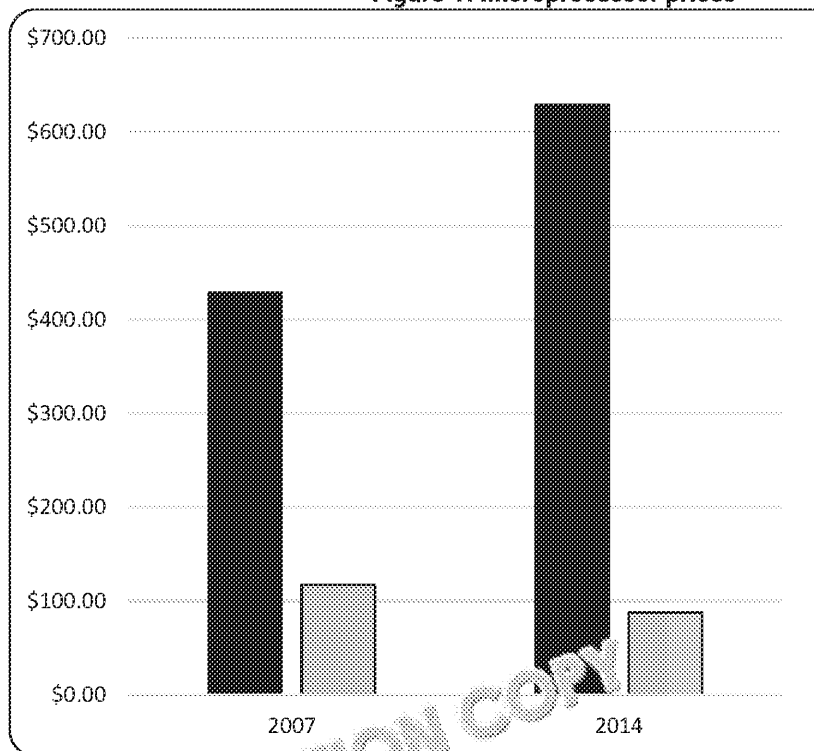
4.1 Competition and market power

For decades, technology company Intel has exerted monopoly power over the manufacture and distribution of microprocessors: the central unit upon which computers function.

Intel's position in the microprocessor industry bears hallmark features of a monopoly in a number of ways. Firstly, Intel is a vertically integrated organisation: unlike its competitors, it controls the full supply chain of its products from production to sales. Secondly, Intel operates in a high-tech market with particularly large barriers to entry. Thirdly, Intel exerts considerable market power, with over 200,000 patents around the world protecting its intellectual property from competition. This has allowed Intel to act as a price setter.

Rival AMD has been criticised for the rising price of Intel microprocessors, in an industry where technological advances should lead to falling prices. Figure 1 shows the average price of an Intel server chip rose by 47% over a seven-year period. In the mobile computer market, where Intel faces greater competition, the average price of its products fell by 33% over the same period.

Figure 1: Microprocessor prices



Intel argues that the rising price of server chips simply reflects high consumer demand. A 2007 study by the Congressional Budget Office estimated that Intel earned more than \$60 billion dollars of so-called 'monopoly rents' attributed to its market power – between 1996 and 2006.

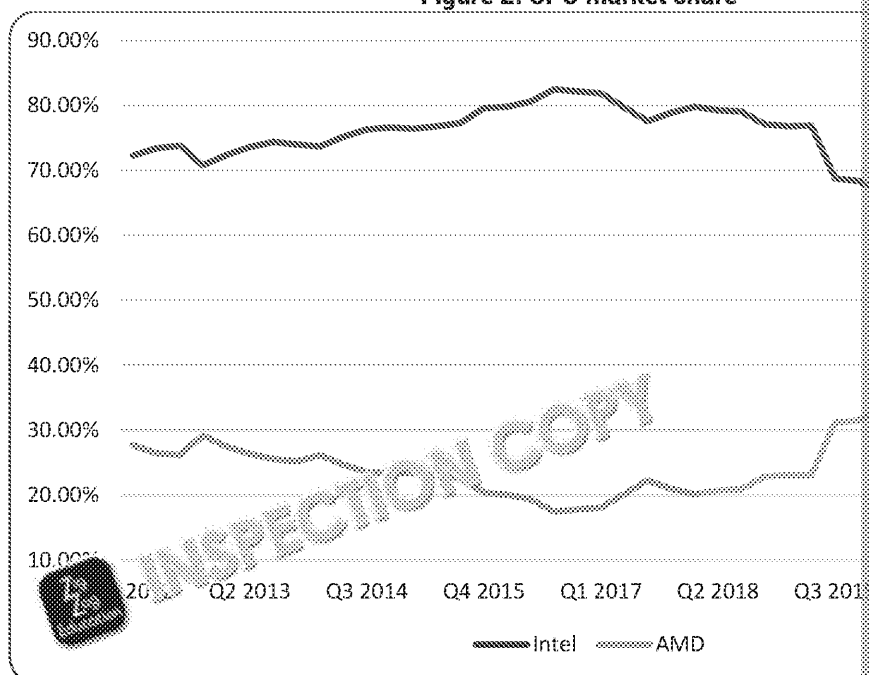
Intel has previously acted determinedly against AMD to maintain its market position, including making payments of hundreds of millions of dollars to computer manufacturers Dell, Acer and HP to prevent them from switching to AMD chips in the production of future products.

However, in 2018 – in a seemingly unassailable position – Intel's dominance began to wane. While Intel controlled more than 80% of CPUs at points over the last decade, this figure had fallen to around 60%.

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Figure 2: CPU market share²

While still a comfortable market leader, the decline represents a serious loss of market share. Some see it as a story of complacency: Intel had become too reliant on its market dominance with AMD's pace of investment in research and development. This gave AMD the opportunity to launch a competitive new generation of microprocessors at a lower price point than Intel's.

As the competition from AMD increases, the expectation is that consumers will benefit from increased competition.

Use the data

1. Explain **two** reasons why consumers are expected to benefit from AMD's increased competition.
2. Which market structure best characterises the microprocessor market in recent years?

Test your knowledge...

1. Explain the difference between monopoly and monopsony.
2. Explain **two** possible benefits of monopolies.

Extended-response question

1. Using a diagram, assess why there may be a natural monopoly in some markets.

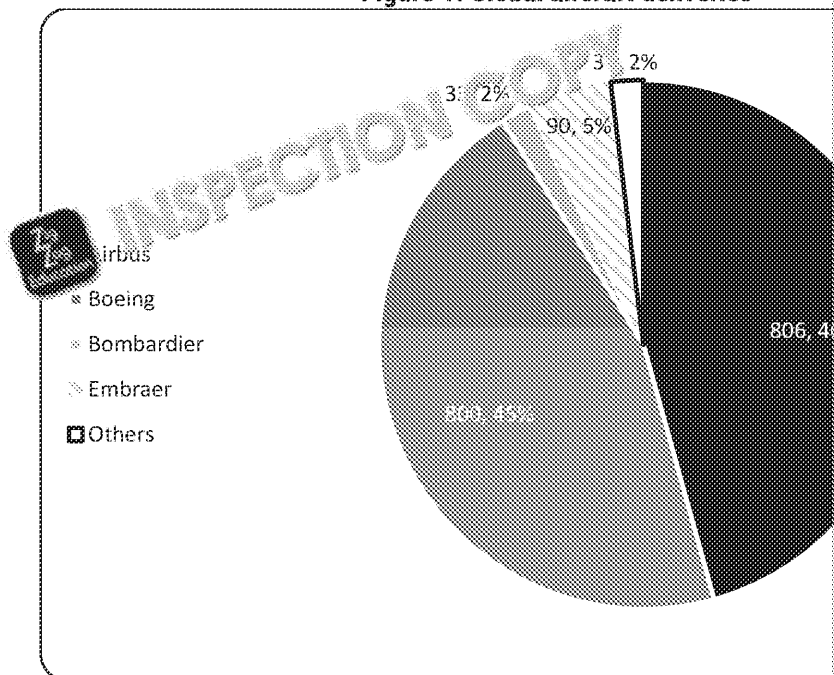
² <https://www.statista.com/statistics/735904/worldwide-x86-intel-amd-market-share/>

Regulatory capture: Airbus pulls ahead

4.2 Market power and market failure

Competition between the world's two largest aircraft manufacturers, Airbus and Boeing, is fierce. The two companies represent a duopoly in the industry and compete directly for global aircraft deliveries by companies in 2018.

Figure 1: Global aircraft deliveries



One of Airbus's most recent airliners, the A320neo, is widely considered to have been a runaway success, becoming the fastest-selling commercial airliner in history. A major factor in its strong performance has been an increased industry-leading level of fuel efficiency. Boeing's 737 MAX airliner was intended as a response and direct competitor to the bestselling aircraft.

However, in 2019, aviation authorities worldwide made the decision to ground all of Boeing's flagship 737 MAX airliners. The decision came after two deadly crashes within five months, tragically leading to 346 people losing their lives. Both crashes were caused by unfamiliarity with the plane's on-board software. Pilots were said to have been given little to no training by the company on how it works, with reports indicating that crucial information about the new system was not included in pilot training manuals.

Questions are being asked about why Boeing did not act more quickly following the first crash, declaring the 737 MAX grounded prior to a full investigation being completed. One suggestion is to lose out on future contracts with airlines to the A320neo, the production process slowed by as much as double the standard pace of production, according to some reports.

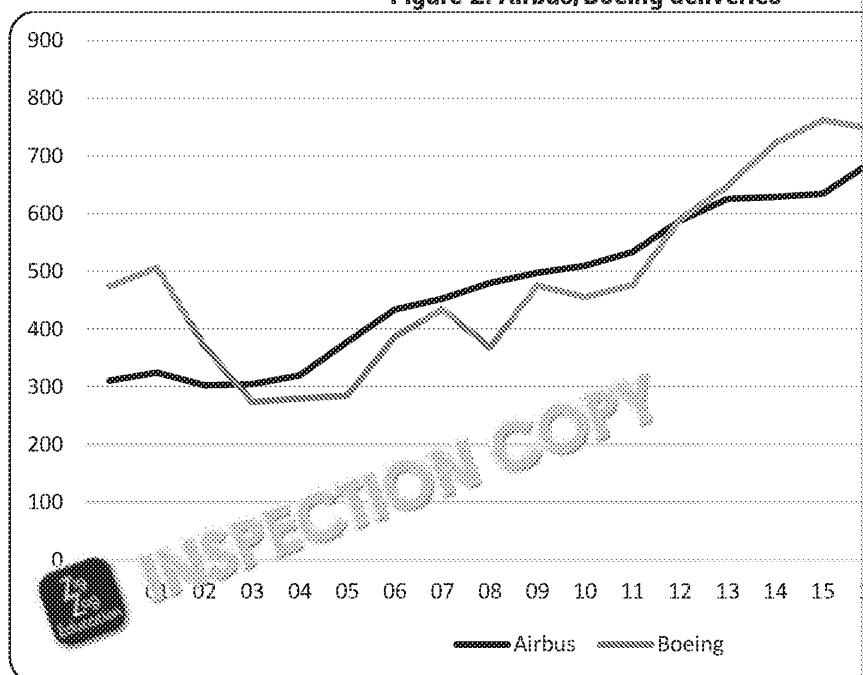
Figure 2 highlights the intense competition between the rivals since 2000. It shows each firm annually, with Airbus beginning to pull ahead after the release of the A320neo, following the 737 MAX crashing after the 737 MAX was grounded.

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Figure 2: Airbus/Boeing deliveries



The United States aviation authority, the Federal Aviation Administration (FAA), has prioritise safety and prevent further loss of life by not grounding the 737 MAX earlier.

Following the airliner's second deadly crash, aviation authorities around the world by the Civil Aviation Administration of China making the decision within hours of the in. FAA's immediate response was to declare the aircraft safe and airworthy, a position authorities in Europe, Canada, India, Korea and around the world came to the opposite. unusual for foreign aviation authorities to declare a specific aircraft unsafe, with the falling to the regulator that corresponds to the country of the aircraft's manufacture.

The aircraft was not grounded in the United States for two more days, until the US Po be, followed by a statement from the FAA confirming the decision. Crash investigator relationship between Boeing and the FAA, as it emerged that Boeing was able to test thorough oversight from the safety regulator.

Use the data

1. What does Figure 1 suggest about the market control of Airbus and Boeing of manufacture?
2. What is the percentage decrease in aircraft delivered by Boeing between 2001 and 2003?

Test your knowledge

1. Explain **one** reason why the FAA might have been subject to regulatory capture.
2. Explain **two** reasons why the FAA might have been subject to regulatory capture.

Extended-response question

1. Evaluate whether regulation can be a constraint on the business growth of a company such as Boeing.

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Public or private goods: COVID-19 vaccine

4.3 Market failure across the economy

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 very clear since the beginning that vaccines should be considered a public 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

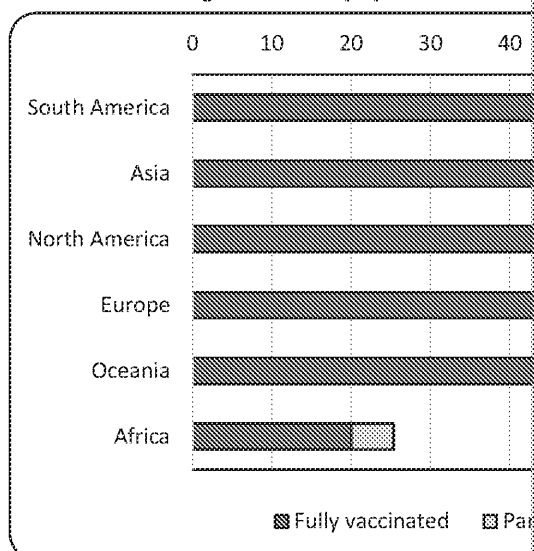
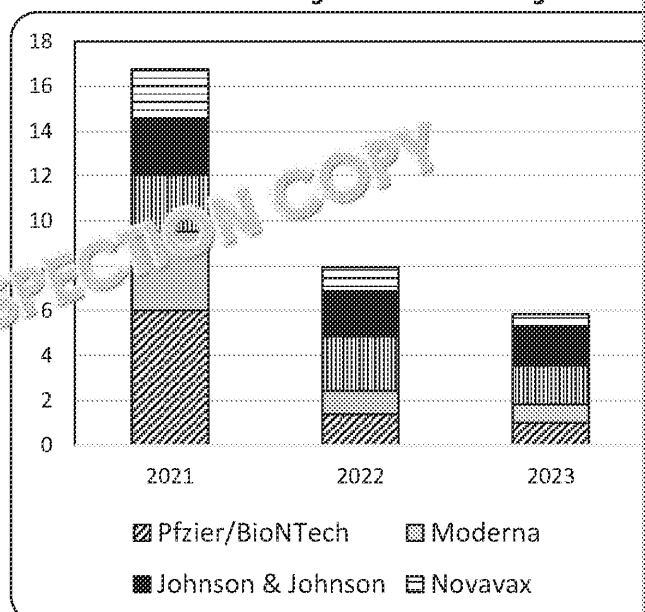


Figure 2: Forecasted global revenue



³ Source: <https://www.wsj.com/articles/covid-19-vaccine-makers-to-face-challenges-when-recognizing-revenue>

Use the data

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

Test your knowledge...

1. Explain what is meant by a 'public good'.
2. Explain **two** positive externalities associated with vaccines.

Extended-response question

1. Discuss whether vaccines are a public good.

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Keeping up with demand: university ad

4.3 Market failure across the economy

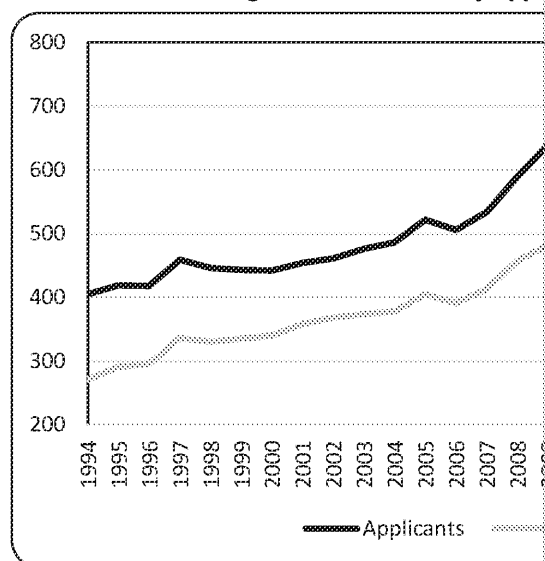


University admissions among British school leavers rose to 320,000 18-year-olds applying for a place in 2008 – a figure that has risen to 650,000 in 2016, with only 33% of 18-year-olds applying in 2004. The number of applications and admissions to UK universities has risen significantly since 2004.

The increases in admissions come despite government efforts to promote alternative routes to university education, such as further education colleges, and also despite the introduction of the highest tuition fees in the world.

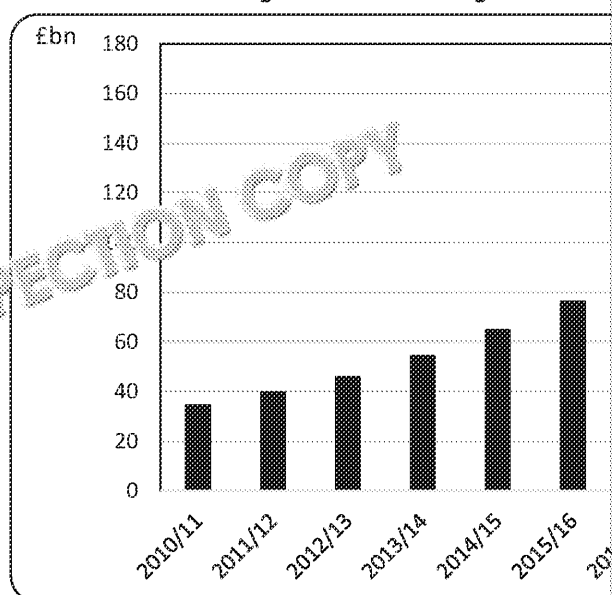
A number of new reforms to university admissions have been announced, including a lowering of the income threshold at which students must make repayments, an increase of a decade in the period before student debt is written off, and a proposal to withhold student finance from applicants without GCSEs 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.

⁴ Source: <https://www.statista.com/statistics/284230/university-applicants-in-the-united-kingdom-uk/>

⁵ Source: <https://www.statista.com/statistics/750679/outstanding-amount-in-student-loans-uk/>

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

Test your knowledge...

1. Explain why demand for university education might have increased, relative higher education.
2. Explain the elasticity of demand for university education.

Extended-response question

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

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The 'golden era' of growth

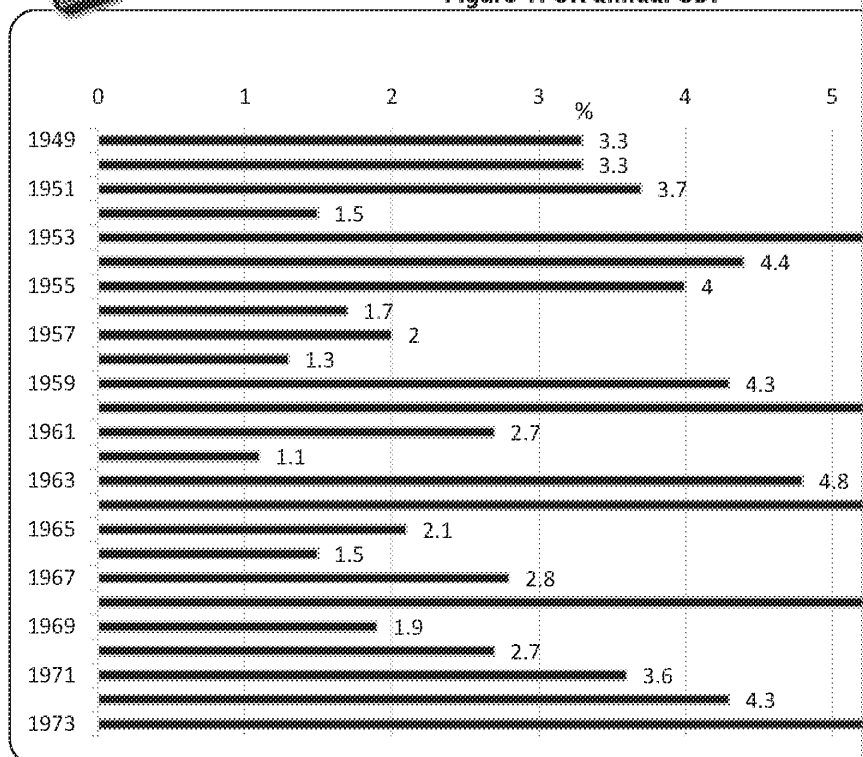
4.4 Macroeconomic policies

Between the late 1940s and early 1970s, the UK economy experienced an unprecedented period of growth, often referred to as the 'golden era' of British economic expansion. During this period, the annual rate of growth regularly exceeded 3% as Britain was rebuilt following the destruction of the Second World War.

The strong growth figures were accompanied by significant improvements in living standards as consumer goods became cheaper, wages rose, jobs were widely available, the welfare state emerged and slums were cleared to make way for modern housing. In 1957 Prime Minister Harold Macmillan famously declared that British people had 'never had it so good'.

Figure 1 shows the exceptionally strong annual growth figures to which the 'golden era' corresponds.

Figure 1: UK annual GDP



There were a number of reasons why the UK was able to sustain such a long period of growth. These included the level of job creation associated with post-war reconstruction, and the influx of immigrants from Commonwealth nations.

The golden era can be said to have come to an end when the economy entered a period of stagnation in response to oil price increases. Since then the UK has not experienced such a prolonged period of growth, with the economy slipping into recession on a more regular basis.

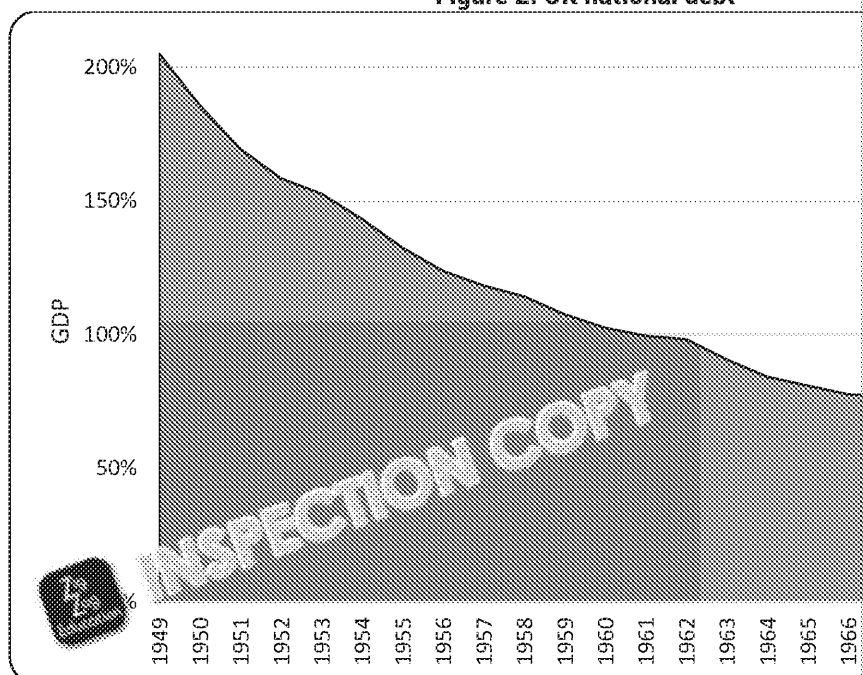
One major advantage of this 'golden era' of growth was that it helped to substantially reduce the national debt that had accrued while fighting the Second World War. Figure 2 traces the reduction of national debt as a percentage of GDP from 1949–1973. It shows that, following the war, debts were more than 200% of GDP, but fell to around 50% in just over 20 years.

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Figure 2: UK national debt



The Office for Budget Responsibility highlights how 'in nominal terms, debt increased. GDP increased by more than 1,200 per cent in the same period. This reduced the debt level to less than 50 per cent of GDP'.⁶

This conforms to a discretionary fiscal policy approach which seeks to be a counter-cyclical. During periods of expansion, high taxes and low public spending should in theory provide financial reserves needed to cut taxes and increase spending in recessionary periods.

Use the data

1. Explain why the trend in Figure 2 can be attributed to sustained economic growth.
2. Using Figure 1, estimate the average annual GDP growth rate of the UK over the period 1949-1966.

Test your knowledge...

1. Explain the alternative to 'discretionary fiscal policy'?
2. Explain, using a classical AD/AS diagram, with an SRAS curve, the type of output gap that an economy is in:
 - a. At the peak of a boom
 - b. At the trough of a downturn

Extended-response question

1. Assess the costs and benefits of economic booms.

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⁶ <https://obr.uk/box/post-world-war-ii-debt-reduction/>

Reforming subsidies: agriculture after

4.4 Macroeconomic policies



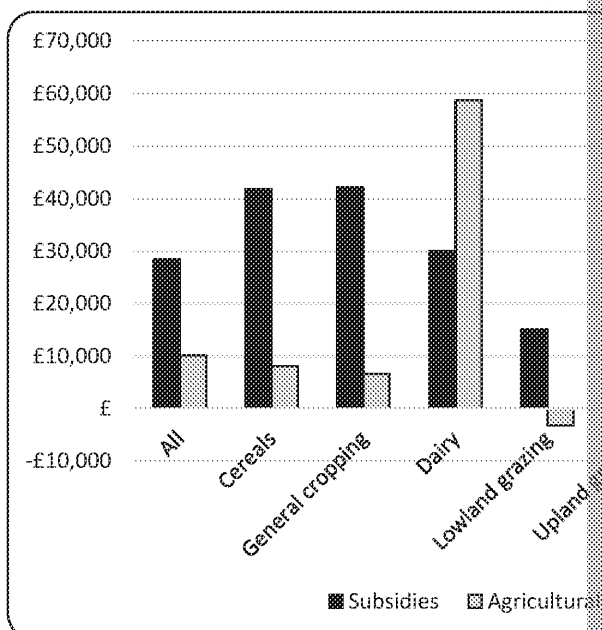
The European Union's Common Agricultural Policy (CAP) is the institution's budget, handing out more than €500 billion across Europe. The UK's agricultural producer programme, receiving a total of €3 billion between 2014 and 2020, is to safeguard Europe's food supply and protect against the whims of market forces.

As the UK left the European Union in 2020, the government has introduced a new agricultural support scheme.

Payment Scheme – while a longer-term solution is needed, many farmers will struggle to make their operations financially viable. Figure 1 indicates how dependent farmers are on subsidies.

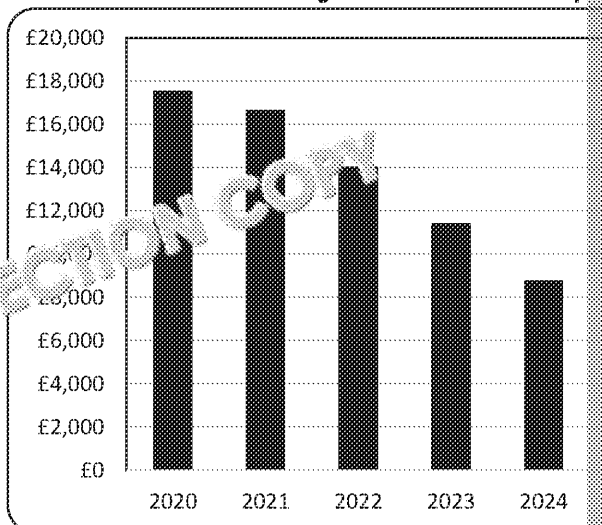
The CAP is a policy that has been having a detrimental impact on the environment by encouraging unsustainable forms of land use on an excessive scale, and for producing excess supply leading to food waste. The UK's proposed replacement comprises a number of schemes designed to encourage more sustainable 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 over the new schemes, and that the subsidies available to them during 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 or food production being "exported" to countries with lower environmental standards.'

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Use the data

1. Calculate the percentage of an average UK farmer's total income that comes from subsidies (give your answer to the nearest whole percentage).
2. Draw and annotate a diagram demonstrating the impact of the phaseout in 2013.

Test your knowledge...

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

Extended-response question

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

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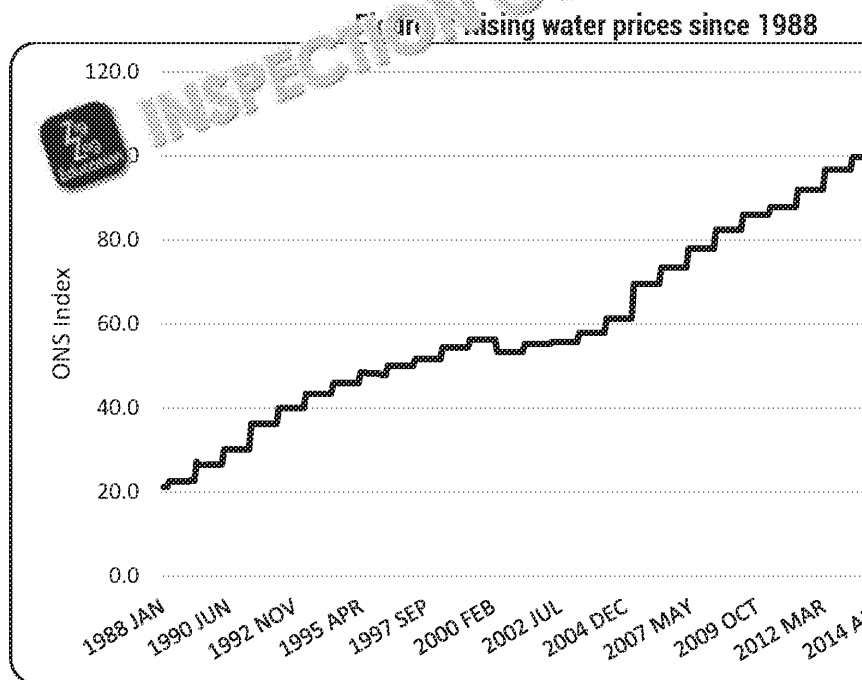


Water privatisation: supply-side inter

4.4 Macroeconomic policies

Water companies were a publicly owned utility in the UK until privatisation in 1989. A policy designed to encourage long-term economic growth. The idea behind privatisation is to introduce competition in the market and increase efficiency, as private firms (motivated by profit) are expected to operate more efficiently than the government can.

Competition was also hoped to reduce the price of water for consumers. However, by 2014, the average household water bill increased by 40% above inflation before falling slightly following intervention from the regulator. Figure 1 shows the increase in the cost of water since 1988.



During this period, private water companies have paid out almost £57 billion in dividends to shareholders, working out at roughly £75 per household per year. According to the Joseph Rowntree Foundation, arrears on water bills are the most common form of debt among low-earners, with more than half a million households in arrears on their bills.

Despite the higher costs, frequent surveys have shown that price is not the paramount concern of consumers. Instead, quality of water is the primary consumer concern, with prices generally high.

However, while drinking water remains clean, the same cannot be said for the UK's waterways. The Environment Agency released a damning report on water pollution, highlighting that only 1% of rivers in England are polluted. Only 1% of rivers meet a 'good ecological' status – a significant improvement on the 1990s.

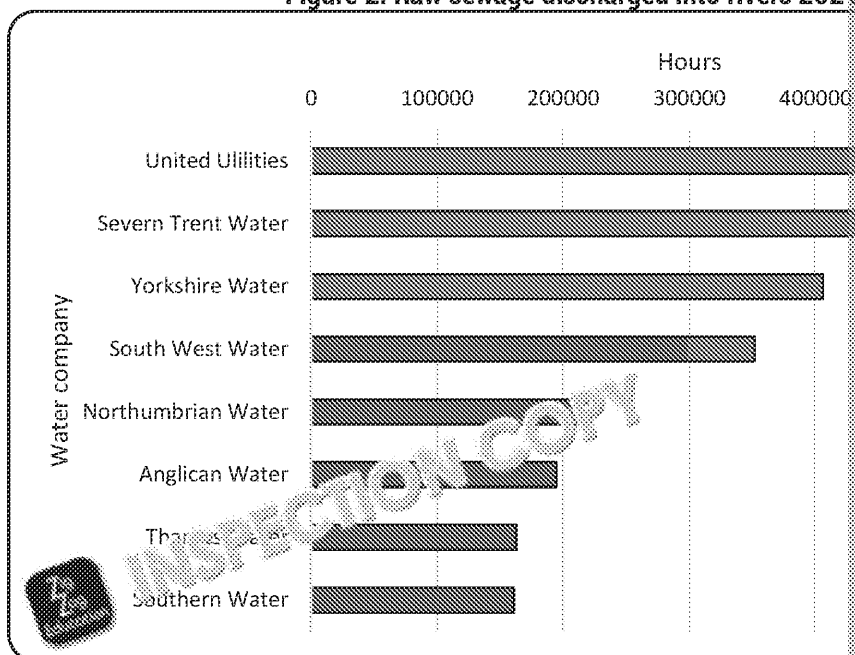
In 2020, water companies discharged raw sewage into rivers for more than 3.1 million occasions. Raw sewage is only meant to be discharged in rare circumstances. The Environment Agency funding have reduced its capacity to monitor incidents of water pollution. Responsibility for monitoring has been largely handed over to water companies themselves. The Environment Agency has reported how much sewage was dumped by each water company in 2021.

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Figure 2: Raw sewage discharged into rivers 2021



Regulation of the industry is split between different organisations. The primary regulator is Ofwat, which is responsible for upholding consumer rights and ensuring provider obligations are fulfilled, such as ensuring water is delivered to homes. In addition, the Drinking Water Inspectorate is responsible for ensuring the quality of drinking water. The Environment Agency is responsible for regulating the environmental impact of water provision.

Use the data

1. Aside from privatisation, what other explanations could there be for the trend in raw sewage discharge?
2. What type of policy conflict is alluded to by Figure 2?

Test your knowledge...

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

Extended-response question

1. 'Governments should focus more on supply-side policies than demand-side policies to achieve sustainable economic growth.' Evaluate this statement.

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Constructing the multiplier: high-speed rail

4.4 Macroeconomic policies

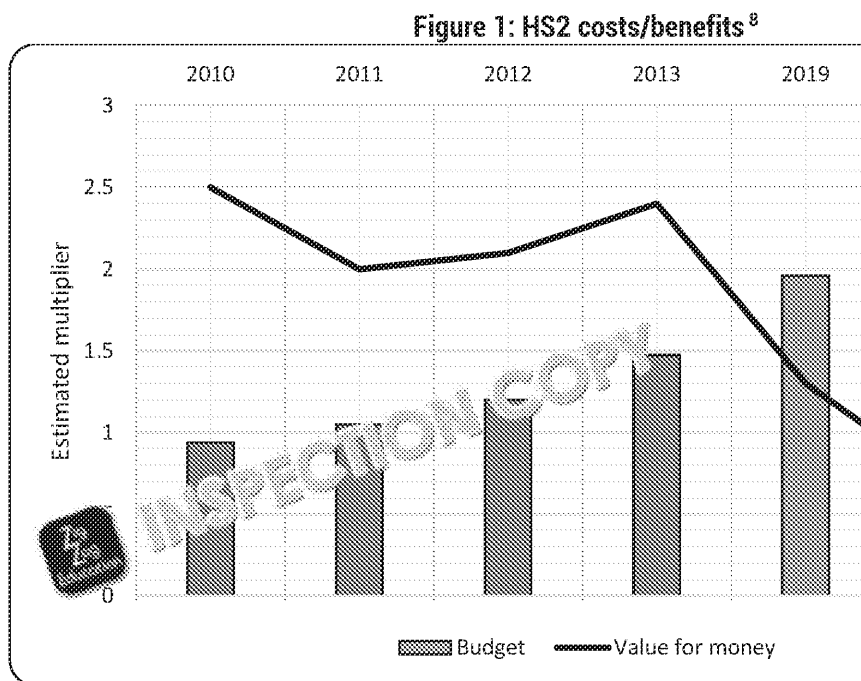
The idea of the multiplier effect in economics is quite simple in theory. When there is an injection into the economy (such as through government spending, or through spending by foreign tourists), the total income of the economy can be greater than the size of the initial injection. This is because when one person spends that money, they then spend that money, which increases the income of others, and so on, until the total income of the economy is greater than the initial injection.

With economic growth and productivity remaining stubbornly low in the UK economy, the focus of policymakers has shifted to how big public investments can help to get the economy moving. One such large investment is the High Speed 2 railway line between London, Birmingham and Manchester.

Some economists believe that transport infrastructure will help to stimulate economic growth and productivity. There are a number of reasons to believe this. Firstly, reduced travel times will allow firms to access more skilled workers for a larger pool of labour. Secondly, greater interconnectedness of services outside of their immediate area more easily. And thirdly, some firms would have a larger marketplace than previously, meaning their customer base will expand.

In addition, the government claims that 'HS2 stations can act as a multiplier or accelerator for local economic plans.' This is because the footfall produced by commuters will increase commerce in the area, leading to more business and demand for housing.

However, other economists disagree with this analysis. **Figure 1** highlights how the estimated multiplier has increased considerably across multiple government reviews, from an estimation of 1.0 in 2010 to 2.0 in 2019. At the same time, the black line tracks the estimated multiplier arising from the project as costs rose.

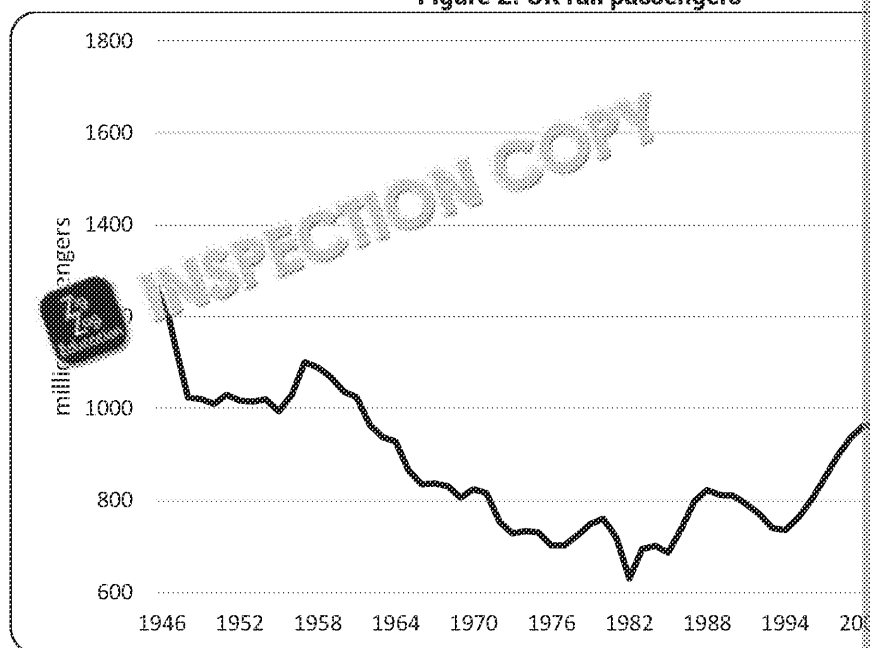


⁸ Data <https://www.instituteforgovernment.org.uk/explainers/high-speed-2-costs-data>

In Lord Berkeley's unofficial 2020 report on HS2, he estimates that the multiplier for 0.6, which he regards as 'poor value for money'. This stands in contrast with initial projections that the project would produce benefits worth more than twice its costs.

Supporters of HS2 argue that the project is not just about providing value for money but also about expanding the UK's railways. Figure 2 highlights how rapidly increasing passenger numbers on existing lines and the need for new capacity is likely to become a necessity in the years ahead.

Figure 2: UK rail passengers⁹



The government predicts that demand for rail journeys will continue to increase at an average of 5% per year. Since 1994 rail demand has increased on average by almost 5% every year, making

Use the data

- Figure 1 outlines specific estimations of multipliers that have been produced from various analyses of HS2. Give **three** reasons why it is notoriously difficult to make accurate estimates of the multiplier.
- The estimated multiplier of HS2 in 2011 was 2. Calculate how many billion passengers per year would be generated at this point in time.

Test your knowledge...

- Explain, using a suitable diagram, how an increase in government spending can lead to inflation.
- Explain why the multiplier is an important variable in determining the size of the multiplier effect.

Extended-response question

- Suppose a government wanted to help the economy out of recession by raising government spending. Using your knowledge of injections, withdrawals, and the multiplier, evaluate the likely effectiveness of this policy.

⁹ Data <https://dataportal.orr.gov.uk/statistics/usage/passenger-rail-usage/table-1220-passenger-journey>

¹⁰ <https://publications.parliament.uk/pa/ld201415/ldselect/ldconaf/134/13410.htm>

Quantitative easing: the evolution of money

4.4 Macroeconomic policies

Following the financial crisis of 2007/08, the Bank of England adopted a new form of quantitative easing, or QE. QE expands the money supply, and does so through the creation of new money. Most of the debts purchased belong to the government, and are also known as gilts. When the bank creates new money that the bank has created, the money supply expands.

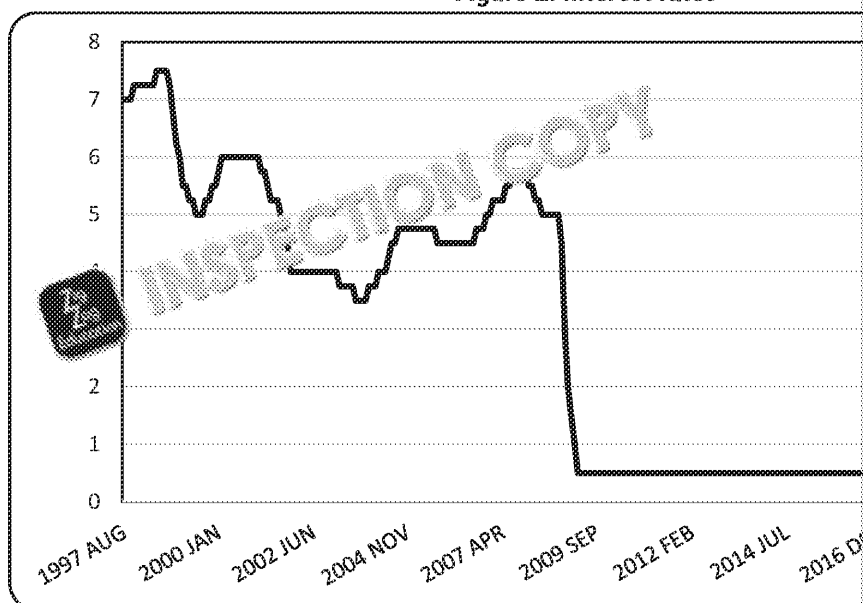
The process of QE was repeated again on two occasions in the 2010s when deflation was a risk. And it was rapidly expanded during the coronavirus pandemic, partly as a means to help the economy through the crisis. **Figure 1** demonstrates the cumulative cost of QE as a series of major injections to the economy.

Figure 1: BoE QE¹¹



QE has been used to achieve multiple monetary and fiscal aims. It was initially introduced as a tool to try to increase persistently low inflation, as interest rates could not be lowered further. One of the aims of the Bank of England was that the money entering the national income would help to encourage banks to lend in a weaker economic environment. **Figure 2** shows how far the Bank of England lowered interest rates in this period.

Figure 2: Interest rates



¹¹ <https://www.bankofengland.co.uk/monetary-policy/quantitative-easing>

There is no consensus among economists as to how successful this was. Inflation mostly remained below the Bank's 2% target, but some argue that QE helped to prevent more damaging deflation. QE was also criticised at the time for increasing levels of wealth inequality in the UK by inflating the price of assets, such as housing.

QE was subsequently used in 2016 with the aim of stabilising markets following the UK's decision to leave the EU. And during the coronavirus pandemic crisis, large amounts of QE took place alongside high levels of government borrowing, which were required for high-cost fiscal interventions such as the furlough scheme.

Initially planned as a short-term and one-off intervention, QE has become a major policy alongside the setting of interest rates. Since 2022, the Bank of England has started to offload some of its QE assets, as such a process remains subject to a significant macroeconomic impact.

Use the data

1. Which is the single biggest injection of QE highlighted by Figure 1?
2. Explain why the Bank of England may have started offloading its QE debts in 2022.

Test your knowledge...

1. Explain **two** reasons why the UK inflation rate might have been falling (Figure 2).
2. Explain why deflation might be damaging for an economy.

Extended-response question

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

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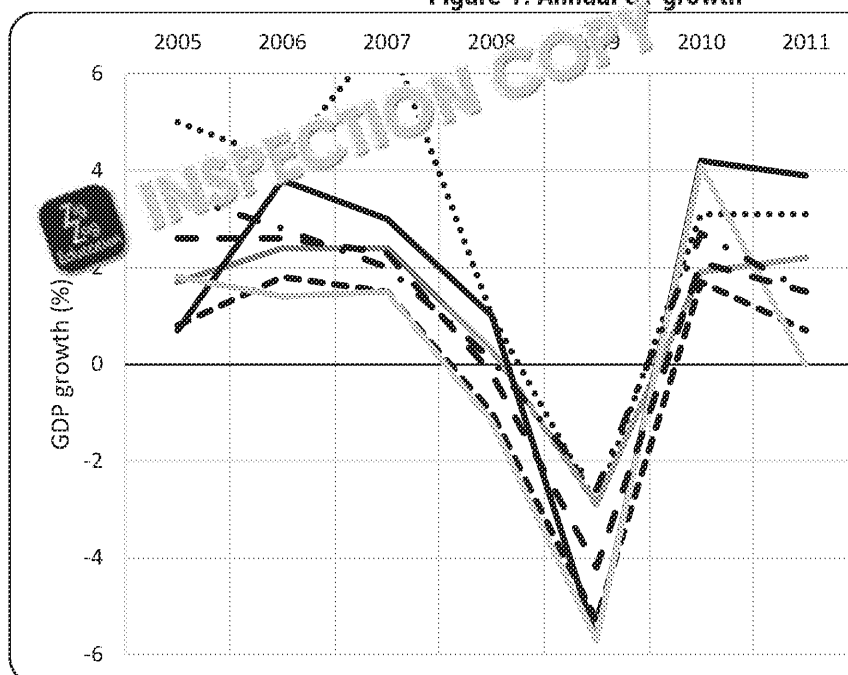


Global financial crisis: 15 years

4.5 Risk and the financial sector

Even 15 years on, the impact of the global financial crisis continues to be felt across the world. The economic growth that was pervasive in the Global North prior to the crash has never returned. The world has had to adjust to a lower-growth model which has resulted in stagnating living standards and increasing political instability. That the effects of this moment are still felt today is testament to the power of financial markets in the functioning of the modern economy.

Figure 1: Annual G7 growth

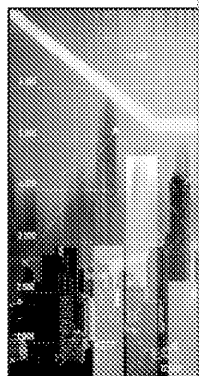


The crisis threatened the very stability of finance itself – both commercial banks and central banks found themselves in a situation where their liquidity and capital ratios were so low that the entire banking system was in question. This meant that banks could potentially no longer create credit and facilitate the transfer of money.

The big takeaway from the crisis is that it did not occur simply because people misbehaved. Instead, the real reason behind the crash was that it resulted from structural weaknesses that were built into the fabric of the international economy. The regulatory environment was inadequate at minimising systemic risk. This exposed the so-called 'real economy' to a whole range of risks.

Take, for instance, asymmetric information. In the US, the early 2000s were years of unparalleled prosperity. Confidence in the financial system was high. As such, banks began extending mortgage loans to subprime homeowners who were considered 'subprime' (i.e., unlikely to pay it back). Extending these loans was made possible by the development of various complex financial products that shifted the burden of risk between different parties.

The problem with these products was that not everyone who traded them understood what they really meant, or how risky they actually were. As such, when the credit bubble burst, banks and traders were unsure how much they actually stood to lose, triggering a panic and the ensuing financial meltdown.



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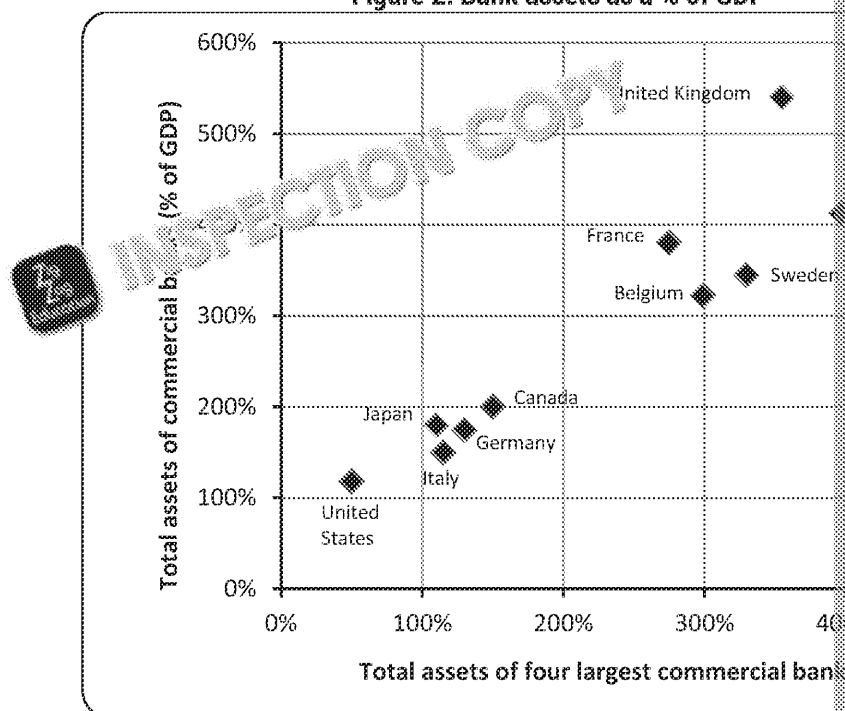
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Almost all banks were very highly 'leveraged', meaning that the value of their loans far exceeded their reserve funds. This made an unexpected decline in the value of their loans devastating. The amount that banks have to hold in reserve have been tightened up.

Another aspect of market failure that emerged from the crisis was moral hazard. Governments bailed out failing banks because they hoped that it would prevent even more damage to the economy. Figure 2 shows us the extent of assets owned by commercial banks, compared to the GDP of the economies in which they operated.

Figure 2: Bank assets as a % of GDP



If true free-market economics had prevailed, the banks that had taken excessive risks would have failed. Instead, the banks were 'too big to fail'. The moral hazard is the possibility that the bailing out of banks encourages them to continue taking excessive risks.

One lasting impact of the crash on the UK's governance has been the development of Quantitative easing. This was first used by the Bank of England as an emergency measure to stimulate the economy. However, it has since become a more permanent feature of the UK's economic policy. In the mid-2010s, the coronavirus pandemic of 2020–2021 and the financial crisis of 2008–2009, quantitative easing was used to provide liquidity to the financial system.

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Use the data

1. What does Figure 1 tell us about the relationship between financial markets?
2. What does Figure 2 suggest about the capital ratios of UK banks, relative to

Test your knowledge...

1. Explain how commercial and investment banks create credit.
2. Explain **two** functions of the UK's central bank.

Extended-response question

1. Assess policy conflicts involved in the regulation of the financial sector.

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Answers

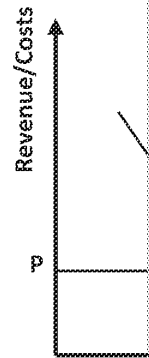
Perfect competition: Deliveroo competing in public

Use the data

- In December 2021 the share price plummeted. As such, it is likely that there were many investors trying to get rid of their shares before the price dropped too low.
 - In April 2021, the share price was around 330 pence, so 500 shares would have been worth £165,000. By October 2022 the share price had fallen to around 80 pence, so 500 shares would now be worth £40,000. This is a fall of £125,000. (Accept answers either side of this to account for differences in rounding.)
- A bear market occurs when the stock market falls by at least 20% from its peak. 20% of 33,000 is 6,600. The share price would have to fall to 6,800 to be considered a bear market.

Test your knowledge...

- Typical examples include the market for agricultural goods or the foreign exchange market.
1 mark for an example, and 1 mark for each explanation.
- Your diagram should look something like the one on the right. The demand/MR/AR curve is horizontal (1), equilibrium occurs at price P and quantity Q (1), where AC is at its lowest point at a tangent to the demand curve (1). The marginal cost curve goes through this equilibrium point (1).



Extended-response question

- Characteristics of perfect competition include:
 - Many buyers and sellers, none of whom are large enough to influence the price. Definitely true of the stock market, there are millions of buyers and sellers, and no individual market forces.
 - Low barriers to entry/exit. This is probably true of the stock market – anyone can buy or sell shares, although many investors choose to pay a broker/trader to pick stocks for them.
 - Perfect knowledge of prices. This is true of the stock market; prices are freely updated frequently. However, some traders have been accused of (unfairly) exploiting their access to receive market data, which would violate this characteristic. Read *Flash Boys* if interested (or maybe read a summary of the book).
 - Products are homogeneous. This is true of the stock market – a share in one company is as good as a share in another.

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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.