Economics A-level

Contextual Analysis

(Please note: This contextual analysis document is not exam-board specific)

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1. How the Macroeconomy Works

Determinants of Aggregate Demand (AD)

Consumer spending (C):

- Increase - when the Trump Administration announced **tax cuts** in 2018 for American households and firms, this increased **disposable income** for consumers across the US. This therefore increased their **marginal propensity to consume**, so shifted the AD curve to the right, and contributed to the economic expansion America was experiencing during this period.

- Decrease - due to the coronavirus pandemic, countries all over the world have experienced the highest **unemployment rates** seen in decades, as a result of national lockdowns which have forced non-essential shops to close and have disproportionately affected the hospitality sector. With fears of redundancy in the US, for example, the **marginal propensity to save** has increased, which has therefore shifted the AD curve leftwards. As shown diagramatically, this has contributed to the **recession** the US is currently experiencing in 2020, due to the reduction of GDP from Y2 to Y1.

Investment (I):

- Increase - despite the coronavirus pandemic that has crippled economies across the planet, China has proved itself resilient as the only country in the **G20** projected to see positive economic output at the end of 2020. China also plan to expand their **Belt and Road Initiative (BRI)** and implement their new **Dual Circulation Strategy**. It is clear covid-19 has accelerated the shift in power from the West to the East, which has simply attracted more and more people to invest their money in Chinese firms.

- Decrease - **Brexit** has deterred investors from the UK ever since the EU referendum in 2016. The multiple deadline extensions, fears of a no-deal Brexit and Boris Johnson's tactic

to override parts of the international treaty in September 2020 has created more **uncertainty** surrounding the future of an independent UK. In the event of a no-deal Brexit, the UK would be forced to trade on the terms of the World Trade Organisation (WTO). This would result in much larger tariffs on UK exports, significantly damaging GDP and thus discourage risk-averse investors from channelling their funds into the UK.

Government spending (G):

- Increase - the UK government has planned to spend millions to introduce the new **T-level** courses starting in September 2020. These are 'technical based qualifications', available to 16-18 year olds that last 2 years long and are equivalent to 3 A-level grades. By spending more on vocational training, the government is helping students find jobs easier by equipping them with the relevant industrial skills. Not only will this increase **AD**, but will also shift out the **LRAS** curve, as T-levels are a form of Training and Education (**T&E**).

- Decrease - in 2010, Greece's **public debt-to-GDP ratio** reached 146%, and was eventually bailed out by the eurozone, who forced the government to adopt **austerity** measures. This meant cutting back spending on services such as healthcare and **education**, which contributed to the fall in **AD** that Greece experienced at the time.

Net exports (X-M):

- Increase - in November 2020, the largest ever **Free Trade Agreement** (FTA) was signed. The Regional Comprehensive Economic Partnership (RCEP) covers a market of nearly 2.2 billion people, with the notable member countries being Australia, China, Japan and South Korea. With the **bloc** covering 28% of **global exports**, members will experience a smoother flow of **trade** and investment, and therefore benefit from a boost in net exports.

- Decrease - as mentioned above, with China projected to come out of 2020 the strongest, demand for the **Yuan** (¥) has grown with more overseas **investors** praising the country's response to covid-19. A strong **exchange rate** would, however, make exports dearer but imports cheaper and so, in theory, reduce the net exports of the economy.

Determinants of Short-Run Aggregate Supply (SRAS)

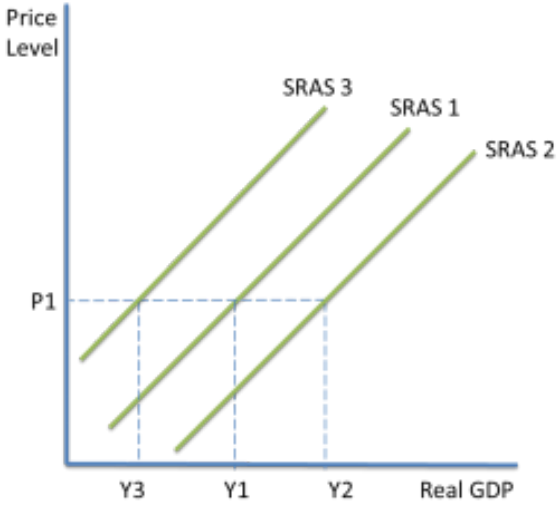
Cost of employment:

- Increase - during peak seasons at airports (i.e. Christmas), airport baggage handlers are most likely to go on strike with demands for higher wages, as this is the period when airports cannot afford any delays in flights. A rise in **wages** increases the **cost of production** for firms, and therefore shifts the SRAS curve left, from SRAS 1 to SRAS 3.

- Decrease - due to national lockdowns to prevent the spread of coronavirus, the UK government has implemented a **furlough scheme**, which **subsidises** wage bills as 80% of monthly salaries are covered by the government, with the remaining 20% covered by employers. This should lower the **cost of production** for firms, shifting the curve from SRAS 1 to SRAS 2.

Cost of raw materials:

- Increase - in 1973, the Organisation of Petroleum Exporting Countries (**OPEC**) imposed an oil embargo against the United States due to geopolitical factors in the Middle East. As the country was very reliant on **oil** at that time, and that OPEC controlled roughly 75% of the global supply, an embargo forced the price of oil upwards, which increased the **cost of production** for many firms.



- Decrease - as the issue of **climate change** is becoming increasingly clear, people have started the transition to becoming 'greener', and leaving less harmful impacts on the planet, e.g. through the use of **renewable energy** sources such as wind and solar, as opposed to coal and natural gas. As mentioned above, by shifting away from non-renewable energy sources, countries are less reliant on **OPEC** for oil, as multiple alternatives are available. This in turn reduces the overall cost of production for firms, shifting the curve from SRAS 1 to SRAS 2.

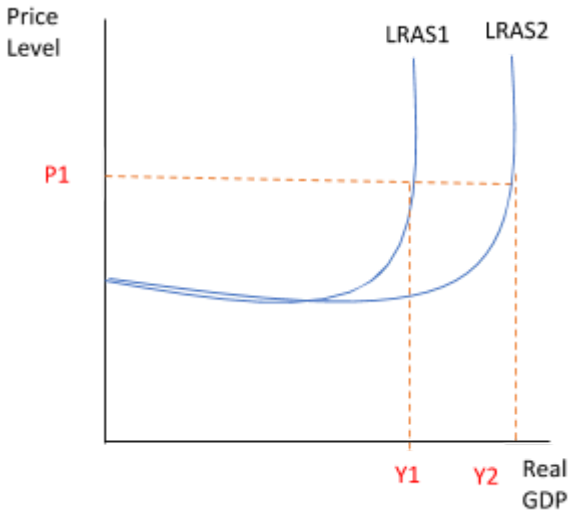
Government regulation:

- The European Union has pledged to become **climate-neutral** by 2050, and in order to achieve this goal, they plan to implement a Border Carbon Adjustment (**BCA**) mechanism by 2022. This is effectively a tax levied on imports that are not produced by environmentally-friendly methods. Firms will therefore either have to pay the tax, or invest in 'green' technology to exempt themselves from it. Either way, firms will see an increase in **cost of production**. As more countries pledge to cut harmful emissions, similar policies will be introduced, to which firms will have to adapt to.

Determinants of Long-run Aggregate Supply (LRAS)

Technological advances:

- In 2015, China made a ten-year plan, "Made in China 2025", to expand their high-tech sectors in order to become a "manufacturing superpower". This involves Research & Development (**R&D**) **subsidies** in the aviation industry, railway equipment, Information Technology, etc. As shown in the diagram, this will shift the LRAS curve to the right, expanding output to Y2 whilst still maintaining the price level at P1.



Changes in relative productivity:

- **Government intervention** (as a result of covid-19), has triggered low **interest rates** and easier access to **credit**, i.e. loans. From this, we have seen a rise in '**zombie firms**', broadly defined as unproductive businesses. If not also for the **furlough scheme** that has subsidised wage bills, the pandemic would have forced these firms into insolvency, but being able to obtain loans easily has kept these uncompetitive firms going. This damages the overall **productivity** of the UK economy, as 'zombie firms' have little incentive to invest in **R&D**. With the pandemic projected to become a long-term issue, more government intervention could further prevent these 'zombie firms' from entering insolvency.

Changes in education and skills:

- As previously mentioned, the new **T-levels** introduced to 16-18 year olds will increase the quality of **human quality**, as the younger generation will be equipped with the skills that potential employers are looking for. This will shift the LRAS curve to the right, boosting the **productive capacity** of an economy.

Competition policy:

- The "Airline Deregulation Act" was passed by Congress in 1978 to effectively remove '**red tape**' in the aviation industry by no longer allowing the U.S. government to control air routes or fares. This allowed more firms to enter the market, which increased **competition** due to the presence of a **profit-motive**.

2. Economic Performance

The Causes of Unemployment

- Structural unemployment - Due to **technological advances** across a wide range of industries, a high proportion of jobs are at risk of automation. For example, in the automotive industry an increasing number of workers are at risk of **redundancy** from the introduction of robots and machines to perform the same jobs at a fraction of the **cost**. This is classed as structural unemployment because the redundant workers will most likely have no qualifications or **training** in other industries.

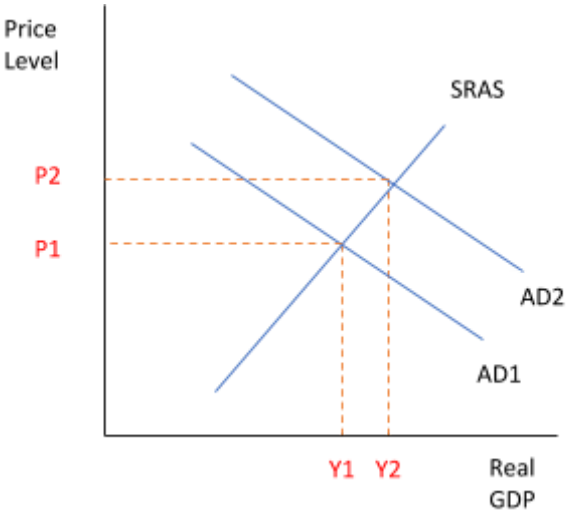
- Structural unemployment - The coronavirus pandemic has forced the UK government to impose multiple national lockdowns over the course of 2020, which has forced people to work from home, if possible. As many jobs in London are **service based** (investment banking, trading, etc.), adapting to this hasn't been an issue as Londoners can work from their home computers. However in the North, a large proportion of jobs are based in the **manufacturing industry**, where it isn't possible to work from home. This links in with **geographical immobility** of labour, as Northerners are unable to travel to work, so are at risk of unemployment. This has also widened the **North-South divide**, with the UK now having the most regionally unbalanced economy in Europe (see notes).

- Seasonal unemployment - **Christmas** is classed as a 'peak season' for firms across many industries. For example, during this 'peak season', Amazon employs temporary workers to cope with the large rise in demand for goods. But these workers would then be laid-off in January.

- Cyclical unemployment - Covid-19 has accelerated the increase in **cyclical unemployment** for those working in the hospitality sector, as these services are classed as non-essential. Government-imposed lockdowns have therefore forced these firms into insolvency, such as pubs and leisure centres, due to a lack of demand from **consumers**.

The Causes of Inflation

- Demand-pull - Around the christmas period, countries experience **seasonal inflation**, as a result of high demand for goods. As the AD curve shifts to the right, the price level increases from P1 to P2, and economists refer to this period as "**Santa's rally**".



- Cost-push - Talks of a '**great decoupling**' between China and America have grown, as tensions between the world's two largest economies become more apparent. By no longer integrating itself with East, American firms have lost the benefit of low prices for raw materials, as they must now look for alternatives. This cumulatively raises the cost of production for firms, which will be passed on to consumers in the form of **higher prices**.

- During the 1973 oil crisis - whereby **OPEC** imposed an oil embargo on the U.S. - the American economy experienced an increase in **inflation**. This is because oil was a major raw material for most firms, and so a sudden reduction in the supply of it sent the **costs of production** soaring, which firms dealt with by charging consumers higher prices, hence a higher rate of inflation.

The Balance of Payments on Current Account

- In November 2020, the World Trade Organisation (**WTO**) allowed the EU to impose **tariffs** on nearly $4 billion of US goods, as a result of the unlawful **subsidies** the U.S. granted to Boeing. Airbus and Boeing (the aviation **duopoly**) are based in Europe and America, respectively. These new tariffs will widen the U.S. **current account deficit**, as the economy will experience more **outflows** of money in order for firms to pay the EU tariffs.

- Being a global leader in innovation, Germany has a considerable current account surplus. One of the driving forces behind this is its low prices (as a result of **R&D** subsidies), which has triggered a boost in **exports**, and Germany is home to many natural resources, so there is little need for **imports**.

- Covid-19 has disrupted global **supply chains** due to national lockdowns and countries closing their borders to outsiders. This has triggered the shift towards more '**domesticated**'

supply chains, which would make countries less prone to **economic shocks** from overseas. One potential implication of this is that current accounts will now be less dependant on the economic conditions of other countries.

Possible Conflicts Between Macroeconomic Policy Objectives

Economic growth vs the environment:

- As climate change is becoming more of a priority for global leaders, more measures will be implemented to prevent the effects on the environment. But the **trade-off** between the two is becoming increasingly clear. For example, the 2006 Stern Report suggests that climate change is costing the world 20% of **GDP** every year. Governments around the world are being forced to sacrifice economic growth to save the environment. For example, the EU Emissions Trading Scheme (**ETS**) adopts a “cap and trade” approach, whereby firms are capped on how much harmful gases they can emit. Unless firms adapt to these policies, they are at risk of insolvency, which will harm **GDP growth**.

Unemployment vs inflation:

- In 1958, William Phillips plotted a graph of inflation against unemployment for the years that led up to that date, and noticed an inverse correlation between the two indicators. This was named the **Phillips curve** (see notes), and has been used by economists ever since. As unemployment goes down (i.e. more people are in work), the demand for goods and services rises so that prices eventually follow - hence higher inflation. Conversely, as unemployment increases, more people save and inflation falls. However, occasionally there have been periods of high unemployment complemented with high inflation, like seen during the 1970’s. This is referred to as **stagflation**, and is frowned upon by many economists as it triggers deep recessions.

3. Macroeconomic Policy

Monetary Policy

- Low interest rates - following the EU referendum - in which the UK chose to leave the trading **bloc** - the Bank of England reduced interest rates to 0.25%, as low interest rates theoretically stimulate demand. This was done **preemptively** to prevent a reduction in GDP growth, as Brexit created **uncertainty** for the UK economy, which resulted in less **investment** from overseas as well as from domestic firms.

- Low interest rates - governments have responded to the coronavirus pandemic by drastically reducing interest rates, in order to cope with the lack of **demand** and **investment** in the global economy.

- High interest rates - from 2009 to 2020, America experienced their longest ever **economic expansion,** to which the Fed responded by increasing interest rates near the end of this period, to prevent **demand-pull inflation** which would have harmed the economy in the future. However these rates were then dropped amid the U.S.-China **trade war** that was projected to adversely impact both economies. Following the 2008 Global Financial Crisis (**GFC**) and the coronavirus pandemic, high interest rates will be extremely rare in major economies, as low interest rates are "locked in for the long term", as the Chancellor of the Exchequer Rishi Sunak stated in early 2020.

- Now that more governments are responding to the 21st century climate crisis, more is being done to mitigate the drastic effects it will have on society. **Green Quantitative Easing** is gaining popularity by many central banks. As opposed to conventional QE, banks would only buy **bonds** off companies that fund environmentally-friendly projects.

- A perfect example of when we saw central banks act as a **lender of last resor**t was during the 2008 Great Financial Crisis (**GFC**). The Federal Reserve, the central bank in the U.S., lent to several Wall Street banks to prevent insolvency. However, many argued that too much government intervention would promote the idea of "**moral hazard**". This concept refers to when parties purposely act irresponsibly and inefficiently because they know the risk is transferred to a third-party member. So, in the cast of the GFC, banks knew that if governments would bail them out then, they would bail them out in the future and so could continue to participate in risky investments. This idea is often referred to as banks being "too big to fail". The Fed therefore decided not to lend to the Lehman Brothers (a bank), and allowed them to become insolvent to prevent **government failure**.

- Although most **central banks** are now independent of their respective governments (e.g. the BoE gained independence in the 1990's), covid-19 has become a threat to this. The response to the pandemic has resulted in **quantitative easing** programmes on an unprecedented scale. The European Central Bank (**ECB**) announced a €750 billion Public Sector Purchase Programme (PSPP), to which the German High Court opposed, as they

felt the ECB exceeded their powers. This has sparked debates as to whether central banks should be under the control of their governments.

- In 2020, the **Federal Reserve** (the central bank in the U.S.) announced their plans to change the way they set inflation rate targets, and named it the **Flexible form of Average Inflation Targeting (FAIT)**. Put simply, in the past the Fed has set a target of 2.0% annual inflation. However, with the new FAIT system, the Fed will now ensure 2.0% inflation in the long-run (i.e. on a more average basis). For example, if in 2025 the inflation rate was 5%, but in 2026 the inflation rate was 0.1%, as long as it is 2.0% on average, the central bank will still be seen as achieving their targets. This means the Fed will have a much more laid-back approach to inflation (often referred to as a dovish approach), which means lower interest rates and more credit expansion is expected to come.

- **Monetary Financing** - a term used when central banks directly buy **bonds** from their governments as a way to finance their spending. Covid-19 has brought this term under the spotlight as the pandemic has forced major **fiscal stimulus** packages across the world, to which central banks felt almost as if they had to pay for. This is yet another threat to the independence of central banks, but by constantly paying for stimulus packages, it encourages reckless spending by the government, which could lead to higher **inflation** rates. The Bank for International Settlements (**BIS**), a group of central banks, stated that the "*fine line between monetary policy and government debt management has become blurred*".

- Covid-19 has triggered a shift from **monetary** to **fiscal** policy, as we begin to see the limits of the former:

➔ The independence of central banks is threatened (explained above).

➔ The vast majority of **interest rates** around the world are very low, and cannot be lowered further to stimulate demand before entering negative territory.

➔ We are starting to see how Quantitative Easing programmes are subject to the law of **diminishing returns** (see notes). As many central banks have bought billions of dollars worth of government and corporate bonds, the effect of this being able to stimulate demand is diminishing - hence the name. Despite having the money from central banks to **invest**, firms in many countries are choosing to delay this due to high levels of uncertainty brought by covid-19, as investment is a **derived demand**.

Fiscal Policy

- **Corporation tax** in the UK decreased by 9% from 2010 to 2019, which, in theory, would shift the LRAS curve to the right by stimulating more **investment**, however this was delayed by uncertainty from Brexit and the US-China trade war. Therefore, when we disregard the **ceteris paribus** assumption, economic theories do not always manifest into the real world.

- In 2013, the UK government made further reductions in corporation tax, and this attracted around 40 different overseas firms to set up bases in the country. The surge of investment should have boosted the economy by creating more jobs, however once the UK public voted to leave the **European Union** in 2016, there was a high level of uncertainty amongst firms, and so they decided to delay their investment plans. This cancelled out the increases in investment in 2013, so had no overall effect on the economy.

- Now that **climate change i**s becoming an increasingly worrying issue, more investment plans are being scrutinised by the public, for example Heathrow Airport's plans for a third runway were rejected by the court of appeal after the adverse environmental effects were assessed, even though it would have boosted economic growth by creating more **jobs**.

- In 2019, Boris Johnson promised a "**triple-tax lock**" in his manifesto. His pledge was that, under a conservative government, VAT, income tax and National Insurance Contributions would not rise. However after the recent covid-19 pandemic, whether he will stick to his manifesto is unknown but the effects of this 'tax lock' could prove to significantly improve the state of the economy, as households will now have more disposable income so their **marginal propensity to consume** will rise.

- Although the idea of **budget deficits** for prolonged periods of time is frowned upon, the coronavirus pandemic has meant that for many governments this has become the new norm. For example, during the 2008 Global Financial Crisis, the UK government deployed several large stimulus packages (e.g. cutting VAT), to which Germany regarded as "**crass Keynesianism**", i.e. the UK were spending recklessly. Germany has always been strong advocates of balanced budgets, but covid-19 has brought even this country into the territory of budget deficits.

- Another way governments could deal with their large **national debt** is by becoming supporters of **financial repression**. This concept explains how funds are channelled from savers to the government as a method of eroding the value of their debt. In practice, governments try to boost the **inflation rate** and lower **interest rates**, so the former is higher than the latter. Governments can now simply grow their economies out of debt, however the low interest rates mean **savers** lose out as their rate of return is not as high as it used to be.

- During the 2010-12 **European debt crisis**, Greece was forced to cut spending and raise taxes to deal with their national debt. This increased unemployment and decreased economic growth by 25%. Another victim of Greece's **fiscal austerity** programme was training and education (**T&E**), as spending on this was reduced by 20%. This shifted the SRAS curve to the left due to lower productivity from workers, and further contributed to lower economic growth.

- In most cases, fiscal austerity is politically difficult as it tarnishes the reputation of those in charge. For example, in 2019 the French president, Mr Macron, announced his **pension** reforms that sparked protests across the country, even though they were clearly stated in his manifesto during his election campaign.

- British Airways was **privatised** in 1987, and has since then witnessed remarkable increases in efficiency. The aviation industry also saw a major decrease in regulation as a result of the **Airline Deregulation Act** in the 1970's, which allowed new firms to enter the market and challenge **incumbents**.

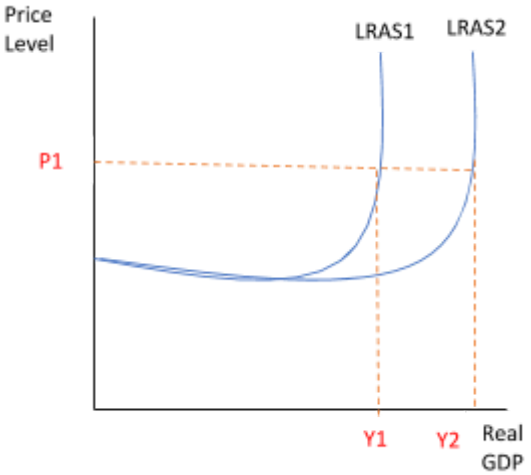
- The UK government announced a new regulatory body within the Competition and Markets Authority, called the **Digital Markets Unit (DMU)**. This unit will regulate firms that have a "strategic market status" and are funded by digital advertising, so namely Facebook and Google. This particular approach is called "**ex ante**" regulation, as opposed to the conventional "**ex post**" regulation. Ex post is when the government intervene in the market following the evidence of market power abuse, e.g. if Google exploits consumer data the government will then set rules banning them from collecting data. Ex ante regulation refers to government intervention prior to any market power abuse, so the government will essentially tell firms how to behave rather than punishing them after they have misbehaved. The DMU will arguably strengthen ties with the EU, who share the same view on tech regulation as the UK. However, the UK must make sure not to impose too much regulation on these firms, else it will deter them from investing in the country.

Supply-Side Policy

- In 2019, the UK government spent £400 million on improving **schools**, and has pledged to raise teachers' salaries to £30,000 by 2022. A rise in wages means teachers are more motivated to work, resulting in a better quality of education and therefore workers with better skills.

- In 2020, Boris Johnson announced his new **immigration** plans that would allow migrants citizenship if they had sufficient educational qualifications. This would result in a much more **skilled workforce** across the UK, which would improve the productive capacity of the economy as firms would become more efficient. However, current British citizens may have less of an incentive to find jobs if they know they are competing against a more skilled applicant, and so may simply apply for universal credit instead, which would increase the **natural rate of unemployment**.

- In 2015, China made a ten-year plan, "Made in China 2025", to expand their high-tech sectors in order to become a "manufacturing superpower". This involves Research & Development (**R&D**) **subsidies** in the aviation industry, railway equipment, Information Technology, etc. As shown in the diagram, this will shift the LRAS curve to the right, expanding



output to Y2 whilst still maintaining the price level at P1.

- Reducing **corporation tax**, among other factors, made the UK appealing to Jaguar Land Rover (JLR) as an investment hotspot. They therefore made plans to build a warehouse in the West Midlands, opening up multiple job opportunities for local residents and therefore reduced unemployment. Although it didn't make a huge impact, the state of the UK budget deficit was improved as JLR had to start contributing towards tax revenues.

- Privatisation does not necessarily result in productivity improvements, as perfectly illustrated by the **probation industry**. Firms operating in this industry were handed over to private ownership in 2014, with the hopes of improving efficiency. However since then, these firms have been **bailed out** by the government several times, until the government announced plans to **re-nationalise** these firms by 2021. Therefore, we can argue that firms in certain industries operate more efficiently in the hands of the government.

- The Conservative party have already started plans to build two of the largest **rail infrastructure** projects in Europe, with the total cost estimated at around £80 billion. **HS2** is a high-speed railway that connects through London, Birmingham and Manchester. The government hopes to improve **labour mobility** across the UK, i.e. the ease of workers to move around the country.

- Margaret Thatcher, a former prime minister (regarded as the "iron lady"), disliked the idea of **trade unions** and saw them as an 'obstacle to economic growth', as workers would negotiate higher wages and better work conditions through these unions, which increased the **cost of production** for firms. Therefore, by diminishing the power of these unions, firms would save a lot of revenue and fewer costs are passed down to consumers in the form of higher prices. However if politicians were to deal with unions with an oppressive approach in today's modern society then, like with many policies, there would be **unintended consequences**. For instance, employees would start adopting a "**work-to-rule**" approach to their jobs. This is when workers do no more than the bare minimum that is required by them by their employers, as they no longer want to work extra hours with no extra pay - like they may have once done before had it been for the influence trade unions once had. This can damage the overall productivity of firms, and can therefore have drastic effects for the macroeconomy.

4. The International Economy

Exchange Rates

- **FOREX** markets are incredibly volatile and exchange rates are constantly changing in all countries, as investors weigh up the risks and benefits of buying currencies by assessing factors such as geopolitics (i.e. current affairs between countries), the current economic climate, etc.

- In 2015 - prior to the EU referendum - the Pound (£) rose against the Euro (€), but by memorising the **WIDEC** and **SPICED** acronyms we can explain how this wasn't necessarily a 'win' for the UK. As the UK has a stronger currency than those countries within the **eurozone**, exports become more expensive (and EU imports follow suit). This scenario is exemplified by what happened to 'Oxford Instruments' in 2015. This firm produces high technology tools and systems for multiple industries and, following the **appreciation** of the Pound, reported a loss of all exports to Russia as a result of the price change.

- Prior to the Covid-19 pandemic, America was experiencing its longest ever economic expansion since the Global Financial Crisis (**GFC**). It was also seen as winning the **trade war** between itself and China, as its counterpart was facing an economic slowdown at that time. Both these factors contributed to a strong dollar ($), as investors saw America as a haven for high returns with minimal risk. However, as currency appreciations trigger cheaper imports, multiple domestic firms reported a loss in profits, because consumers found cheaper goods in other countries.

- Although floating exchange rates have their many benefits, it isn't uncommon that countries decide to implement **fixed exchange rates against** other currencies, for example the United Arab Emirates (UAE) with America. The UAE stated that this is to promote exchange rate stability, in particular the stability of oil prices following several shocks that have triggered global recessions, i.e. the **1973 oil crisis** (see notes). As the exchange rate is fixed, there are low levels of uncertainty amongst investors, which the UAE are currently trying to attract as their supply of oil is limited and they attempt to find other ways of remaining a powerful nation.

- The Chinese government has admitted to managing their exchange rates on multiple occasions for the benefit of their economy. Before the coronavirus pandemic hit, Chinese policymakers would cut **interest rates** in order to boost exports. By cutting interest rates, there is a net outflow of **hot money** - money that moves around countries in search of the best return - as the rate of return was considerably lower. The Yuan (¥) is then **devalued**, which makes exports cheaper, hence a rise in demand for them. The Chinese hoped that by doing this it would diminish the power America had over the trade war.

Globalisation and Trade

- The **Covid-19** pandemic forced countries around the world to close their borders to foreigners in order to reduce the spread of the virus. This also meant a temporary halt to imports and exports between countries. However this has forced firms across the planet to rethink their structuring of **supply chains** - as these chains have clearly proven to be more vulnerable to economic shocks than once thought. The virus has therefore encouraged a shift towards more **'domesticated'** supply chains, i.e. within a country's borders. Although firms think it will benefit them in the long term - by providing more stability - it may in fact do the opposite. If countries become less globalised and consumers turn to buying domestic goods only, there is potential for prices to rise, as the benefits from **economies of scale** (see notes) are eradicated because goods and services are now produced in smaller amounts to suit a smaller market. In addition, domesticating supply chains may in fact make firms *less* resilient, such as in the case of weather strikes, which would disrupt production lines. Firms would be unable to turn to other countries as they once did in a globalised world, and this can actually be seen in North Korea, whereby crop failures result in mass famines as the country refuses to import from overseas.

- As China is on the rise to becoming a global superpower, foreign firms are starting to move supply chains away from the country as they transition away from the 'Low Income Country' status, which means wage rises and higher costs for firms. This movement is referred to as "**China plus one**".

- Although globalisation and Foreign Direct Investment (FDI) usually complement each other, the latter tends to come with its disadvantages. For instance, FDI can "**crowd out**" domestic investment, and governments would prefer domestic investors as the profits are injected back into its own economy. FDI can also threaten **economic welfare**, as foreign investors are less aware of **consumer preferences** than domestic ones. This can be seen in Tesco, a supermarket chain that set up bases in Malaysia, but then had to compete with firms who were more aware of what Malaysian consumers demanded. This eventually led to Tesco selling all their foreign stores in 2020.

- In many cases, **tariffs** and **quotas** arise from geopolitical factors between countries. For example, the World Trade Organisation (**WTO**), an intergovernmental organisation that regulates international trade, settled a decade-long argument between the EU and America regarding subsidies. The US was accused of illegal subsidies to Boeing, an American aerospace corporation. By providing subsidies, the firm's costs of production were reduced, which meant they were able to lower prices to consumers. This had adverse impacts for the competitiveness of Airbus, the European-owned counterpart to the aviation duopoly. The EU therefore took the issue up with the WTO, and was permitted to add tariffs to $4 billion worth of US imports to compensate for the loss of profits to Airbus.

- Globalisation does not always benefit countries, as trade liberalisation has encouraged firms from the West (i.e. the UK, America and Europe) to **outsource** their factories to the

East (i.e. Asia and the Middle East). Low Income Countries in the East offer cheap labour, and therefore attract foreign firms as a way of reducing costs. However, this resulted in mass **structural unemployment** in countries in the West, particularly regarding the textiles and manufacturing industries.

- As the UK has officially left the European Union, politicians are promising a more “global Britain", i.e. a Britain that has more influence in international markets. However so far all Brexit has done is damage confidence in the UK, as one of the conditions of the EU withdrawal agreement was to leave Northern Ireland a part of the **single market** in order to prevent a “hard border” with itself and the republic. This has narrowed the gap towards Northern Ireland and the Republic removing the border between them. On top of this, talks of a Scottish referendum are gaining popularity, which further weakens the reputation of the UK - or what’s left of it. Therefore even though lowering interest rates, tariffs and taxes attract foreign investors into the UK as economic theory suggests, in reality it’s a completely different story once we disregard the “**ceteris paribus**” assumption.

Economic Development

- The rise of China from a third world country to one of the largest economies in the world can be traced back to years of economic reforms in the 20th century. In the 1960’s, under the command of Mao, China played by the rules of a ‘**command economy**’, whereby there was an abundance of regulation with no room for market-based policies. This proved unsuccessful in boosting China’s economy, and in the 1970’s (under a new leader), Deng brought China under a ‘**market economy**’, by incentivising hard work and bringing 700 million people out of extreme poverty. Deng also opened China up to the world, by creating 4 **Special Economic Zones** (SEZ’s) that were subject to unique economic regulation and allowed in **FDI** and imports from overseas. This proved successful and opened the pathway for Deng’s successors to continue boosting China’s economy until it became the global superpower we see today.

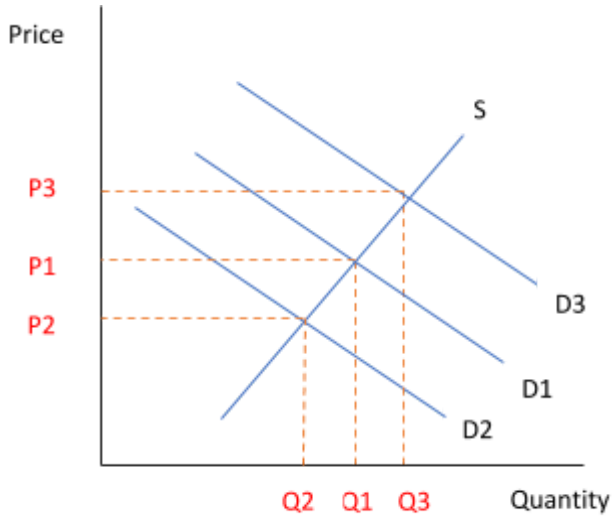
Macroeconomics

1. Price Determination in Competitive Markets

Factors Shifting the Demand Curve

- Decrease - due to **technological advances** in the food industry, **restaurant dining** is on the decline due to the introduction of apps such as UberEats and Just Eat that allow food to be delivered directly to your house. These apps save consumers the time of travelling to restaurants and the inconvenience of having to leave the comfort of their home, hence why 'take outs' are becoming a perfect **substitute** to traditional 'dining out'.

- Decrease - an alternative industry that is on the decline due to innovation in technology is **print journalism**. Newspapers have been substituted by online articles, as setting up **e-commerce** businesses require less costs and so consumers are charged with lower prices as a result. Another reason online news sources have gained popularity is because consumers have access to it from their mobile devices that they carry around daily, and so are much more convenient than newspapers.



- Decrease - the **coronavirus** pandemic has forced countries to close their borders to foreigners (regardless of whether they were travelling for business or pleasure) in order to slow the spread of the virus. This has arguably had the largest impact on the **aviation industry**, as consumers can't fly anywhere so the demand for plane tickets has dropped, hence the price of them has fallen to P2 following a shift left of the demand curve on the graph. This has forced airlines to put workers on **furlough schemes** or even make some redundant.

- Increase - as a result of national lockdowns in many countries to mitigate the impact of **covid-19**, e-commerce businesses have seen sales soaring as consumers are physically unable to buy from **brick-and-mortar** stores so must turn to the internet. For example, **Amazon** announced a 200% increase in profits to $6.3 billion relative to the previous quarter in 2020.

- Increase - another beneficiary of the national lockdowns in 2020 was **Peloton**, an American firm that produces exercise equipment. In the UK, gyms were one of the several establishments in the **hospitality sector** that had to shut their doors to customers. With

most people now stuck at home, alternatives had to be found in order to keep fit, and so consumers turned to Peloton. With online classes and workout sessions, demand for the firm's services skyrocketed, and prices with it. This is represented by an outward shift to D3, triggering a price increase of P3 on the graph above. Peloton's **revenues** rose by 172% to $607 million during this period, and with lockdowns to be extended indefinitely in 2021, their **profits** will only rise further.

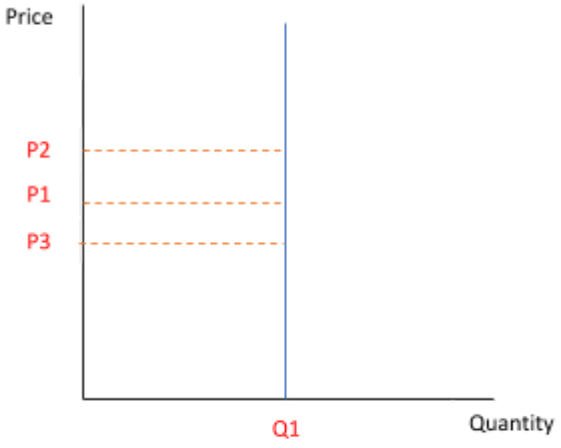
Price Elasticity of Demand

- **Price elastic:** **furniture** stores and **motor vehicle** providers have many competitors and therefore many substitutes for consumers, therefore a rise in price will trigger a proportionally larger fall in demand, as there is an abundance of alternatives available so no **rational economic agent** would choose to pay more for the good/service.

- **Price inelastic:** the **electricity** and **water** industries are regarded as **natural monopolies** (see notes), and so very few substitutes are available. These goods/services are also necessities, and so when the price rises, there is a much smaller fall in demand.

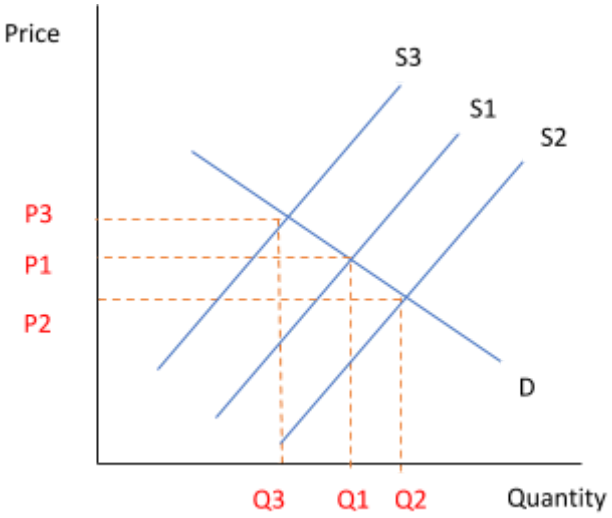
- **Perfectly elastic:** although the idea of perfectly elastic goods can be seen as unrealistic, one of the closest examples of firms that provide these goods are **book stores**. These firms are set up as **e-commerce** and brick-and-mortar stores, and if one book store was to raise their prices, the demand for their goods would theoretically fall to zero, as consumers simply buy from alternative stores. However in reality this may not be the case, as that particular book store that raised their prices may be situated at a convenient location for some consumers, and so they would be willing to pay the extra price as opposed to commuting to a different store. This is why perfectly elastic goods do not exist in the minds of many economists.

- **Perfectly inelastic:** similar to the example above, a perfectly inelastic good is more of a theoretical concept, but there are a few examples that come close. For instance, **lifesaving drugs** would be bought by consumers regardless of the price (depending on the severity of their health conditions), which therefore yields a vertical demand curve. As shown, even if the firm in question decides to raise prices to P2 or reduce prices to P3, the quantity demanded for the drug remains at Q1.



- **Unitary price elastic:** this is when the quantity of a good/service changes in proportion to its price, and an example of this is **clothing**.

Factors Shifting the Supply Curve

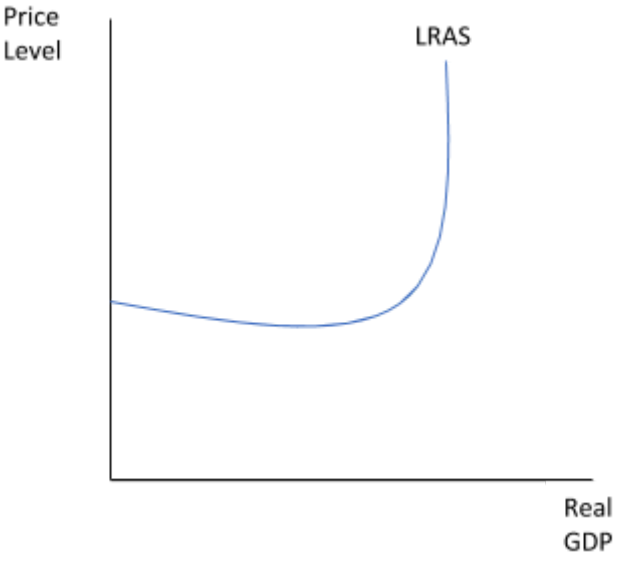


- Decrease - following the end of the transition period on December 31st 2020, the UK reached a **trade deal** with the EU, however it still means **tariffs** on both UK imports and exports. This may significantly impact the supermarket industry, as tariffs would reduce the supply of fruits and veg, for example, which boosts their prices to P3. This is because tariffs increase the cost of production for firms, which they then pass onto consumers.

- Decrease - the supply of housing can suffer as a result of **natural disasters** (floods, tsunamis, etc), as these demolish houses or deem them inhabitable. With the supply falling, the price of houses in the area rises according to traditional economic theory.

- Increase - **innovation** is one of the major causes of a supply curve shift. For example, in the early 2000's firms started getting the most out of the '**digital revolution**' which increased the efficiency of their supply chains and lowered the cost of production, so therefore lowers prices to P2 according to traditional economic theory.

Price Elasticity of Supply



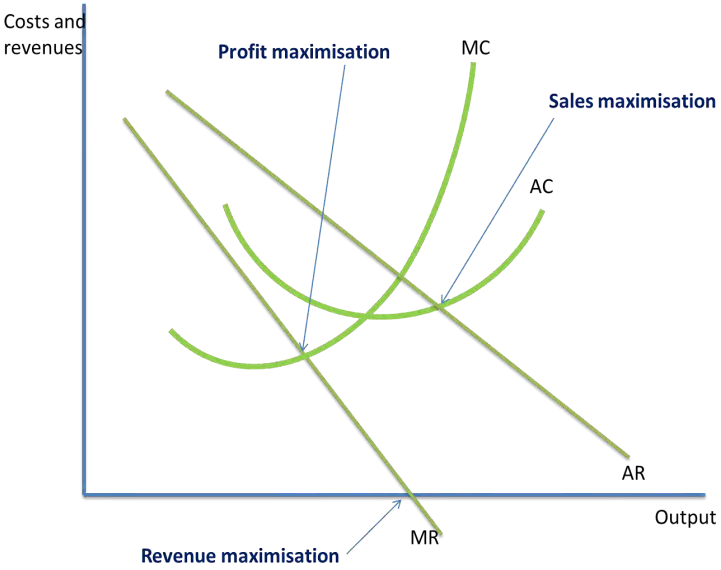
- **(Perfectly) elastic:** if a firm has plenty of **spare capacity**, then the goods they supply will be PES elastic, as the firm can afford to offer more of the good/service if its price rises without operating too close to their **production possibility frontier (PPF)** (see notes). This can also be illustrated on the **Keynesian LRAS curve**. Although this falls under macroeconomics, initially the LRAS curve is horizontal, as the economy has a lot of spare capacity and can therefore allocate resources elsewhere. However, as the economy moves towards its PPF, the amount of spare capacity decreases, and firms find it

harder to find resources that aren't currently being exhausted, and so the LRAS curve becomes inelastic.

- **(Perfectly) inelastic:** **housing** in **prime locations** (i.e. major cities) can be considered perfectly inelastic goods. For example, in London the government has implemented a **Green Belt** policy which prevents houses being built in certain areas in order to maintain the local environment. This effectively keeps the supply of housing in these areas fixed as it would be against the law to build any new houses, and so the quantity supplied remains constant regardless of the price offered for the houses.

2. Market Structures

The Objectives of Firms



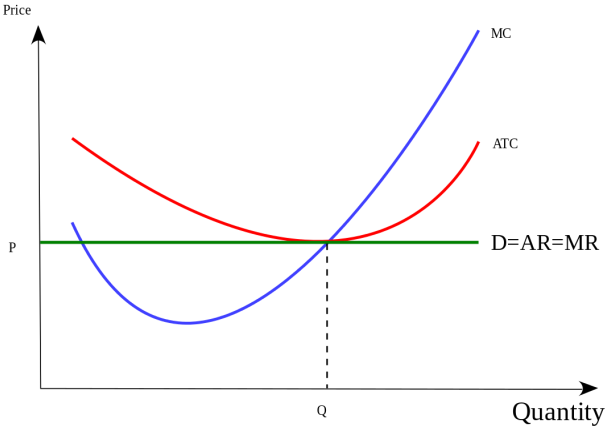
- Following the covid-19 pandemic, several **biotechnology** firms set out to discover a vaccine, and several succeeded near to the end of 2020, however it was clear each firm had different intentions when distributing their vaccines. **Moderna** sold their vaccines for the highest price out of all the firms, and so their objective was arguably to **profit maximise**, as the coronavirus vaccine was a discovery of a lifetime as it had the potential to bring several nations out of lockdown and therefore boost the economy. On the other hand **Pfizer** distributed their vaccines to the public free of charge, which suggests they had purely had **ethical objectives** to curb the number of covid-related deaths.

- **Lush**, a cosmetics company, has clear **ethical objectives** as they do not test any of their goods on animals which - at a time when the topic of animal cruelty is facing a lot more backlash - strengthens Lush's brand name. This would also increase Lush's **market share**, which the firm can then use to increase prices and profit maximise in the long run.

- In February 2020, British Gas raised the **minimum price** for their gas meter top-ups, with the intention to maximise profits. However this resulted in major backlash from customers, with reports of some households having to choose between "heating or eating". The firm eventually reversed their policy in order to maintain their **market share** in the energy industry.

- With the covid-19 pandemic and national lockdowns forcing firms to close their doors to consumers and place their employees on **furlough schemes**, the main objective for the majority of these firms is **survival**. This involves reducing costs, i.e. making workers redundant, cutting back on advertising, etc.

Examples of Market Structures



- **Perfect Competition:** the simplest example of this type of market structure is the **agricultural industry**. For example, in India farming accounts for nearly 55% of all jobs with estimates at around 120 million people in the farming sector. This satisfies the requirement for 'many buyers and sellers'. We can also see there are 'low **barriers to entry**', as farming requires very few start-up costs with most farmers in India already in possession of land they have inherited.
  Finally, goods produced by farmers are **'homogenous'** as the overall temperature and humidity levels are the same across India, meaning farmers grow the same types of crops and all harvest in the same seasons. According to traditional economic theory, perfectly competitive firms would set the price of their goods at point P, in order to **profit -maximise** where MC=MR, and achieve both productive and **allocative efficiency**.

- **Monopolistic Competition:** the **fashion industry** is arguably monopolistically competitive for several reasons. Firstly, due to technological advancements in recent decades the need for conventional **brick-and-mortar** stores has declined as it has become much easier to create clothing stores online for a fraction of the cost. This has allowed 'many sellers' to enter the market, and has significantly lowered 'barriers to entry' as the start-up costs for these firms are much lower, and there is some 'differentiation' amongst the goods offered by these firms. For example, companies such as **Boohoo plc** and **ASOS** are based entirely online and have already taken majority of the market share in the fashion industry as low costs means low consumer prices..
  An alternative industry that is monopolistically competitive is the **airline industry**, and there have recently been an influx of 'budget airlines' making the market *more* competitive, e.g. **Ryanair**, **EasyJet** and **Jet2**. These budget airlines are able to offer low prices as they lease their planes as opposed to buying them, which significantly reduces their operating costs.

- **Oligopoly:** the **supermarket industry** in the UK operates as an oligopoly with the Big 4 (Tesco, Morrisons, Asda and Sainsbury's) owning more than 70% of the market share. There are several high barriers to entry that prevent new entrants from seizing any market share. For example, Tesco has been accused of '**land banking**' - when firms buy a plot of land (without any intentions to build on it) so that their competitors have no space to build

stores. The Big 4 supermarkets also boost their market share by contributing to their **corporate social responsibility (CSR)**. For instance, in January 2021 Morrisons became the first supermarket in the UK to pay all staff a minimum of £10 per hour. Tesco have also built several leisure centres in the areas where their stores are based, as this creates several jobs and boosts the local economy.

- **Duopoly:** Boeing and Airbus, two **aerospace companies** are together regarded as a duopoly as they hold more than 90% of the market share. The two firms are constantly in fierce competition with each other, not only due to **profit-motives** but also because of the **geopolitical** factors at play, as Airbus is European-owned and Boeing is American-owned.

- **Monopoly:** Although there are several examples of monopolies, the one that might be the most obvious is **Google**. Formed in 1998, it has over the years seized control of 70% of the market share for search engine use. Other firms that can be classed as monopolies are **Apple** and **Amazon**. Aside from the market share aspects, we can see just how much **monopoly power** these 2 companies really have following the events in January 2021, when the US Capitol building was stormed by Republicans and advocates of **Trumpism** (as an attempt to stop Joe Biden from becoming president) where 5 people lost their lives. **Parler**, a social networking service, was accused of triggering these events as the app is used by several Trump supporters. Therefore, in response to the event Apple and Amazon banned Parler from their **app stores**, to which these two monopolies have then faced major backlash from President Trump and Parler CEO as "preventing free speech". Aside from the events in the US, we can clearly see the extent to how much monopoly power these two giants have because by banning Parler from *their* app stores, Trump supporters had no other platform to turn to as Apple and Amazon take up so much of the market share there are no other alternatives.

Barriers to Entry

- **Government legislation** is arguably the highest barrier to entry, as no one can break the law. For example the **Financial Services Authority (FSA)**, a former regulator of the British financial services industry, used to have to approve firms if they wanted to set up **stock exchanges** or other services. This was a long-winded and costly process and therefore acted as a deterrent to new entrants, which therefore maintained the monopoly power of the **incumbents**.

- As previously mentioned, **Amazon** and **Apple** have monopoly power that they arguably exploit because they operate a market as well as compete in the market. Put simply, Apple has an "app store" that provides a platform for third-party developers to sell their apps. However Apple also creates its own applications, e.g. iMovie, Keynote, GarageBand, etc. Apple has therefore been accused of displaying its own apps at the top of customer search results in order to promote these more over their third-party competitors. Amazon also does the same with its own-branded products. In order to sell goods off Amazon, the company

charges third-party sellers a commission (which is how it makes its profits), and then deals with the storage, packaging and shipment of the product itself. However now that Amazon has risen to become one of the largest firms in the world, it has begun to make its own goods, e.g. Amazon Basics, Amazon Elements and Amazon Fresh. These own-branded products are offered at a lower price to consumers as there are no commissions charged on them, and so third-party sellers are finding it increasingly difficult to compete with the firm.

- **Intellectual Property Rights (IPRs)** can also be regarded as a barrier to entry, and are essentially copyrights that protect creators from other people/firms who try to steal their ideas or designs. **Pharmaceutical** companies are known for using these to maintain their monopoly powers, however in recent years increased government regulation has prevented this from further occurring. For example the United States-Mexico-Canada Agreement (**USMCA**) has made it harder for pharmaceutical firms to impose **patents** on their goods in order to promote competition.

- As the issue of **climate change** has started to become more apparent in the 21st century following increased flooding and temperature changes, households are starting to care more about their environmental impacts and carbon footprints. For example, in the **automotive industry**, cars powered by the internal combustion engine are on the fall and electric cars are on the rise due the environmental benefits associated with the latter. **Tesla**, a producer of electric cars, has risen to become a multi-billion dollar firm and has now been included in the **S&P 500** index, as more countries tackle climate change and promote sustainability. Following this, **Ford** - a producer of petrol cars - witnessed a huge plummet in sales in 2019. In addition, Norway recently became the first country in the world to have more electric-powered cars than cars that run on petrol, with many other countries not far behind. Not only is this **creative destruction** (as Ford and other companies are falling victim to technological advancements), but this also creates barriers to entry for new firms wanting to join the market, because electric cars come with much higher startup costs and require much more **regulation** than cars that run on petrol.

Contestability

- **Technological advancements** in the gaming industry have lowered barriers to entry and allowed new entrants into the market that has been dominated by Microsoft's **Xbox** and Sony's **Playstation**. One of these new entrants is **Stadia**, a subsidiary of Google, and allows players to download games from their mobile devices with no upfront hardware costs unlike its competitors. Through these **technical economies of scale**, Stadia has minimised its costs and has therefore been able to advertise heavily to increase in market share. However, in order to maintain their monopoly power, Xbox and Playstation have been accused of enforcing **strategic** barriers to entry (i.e. **predatory pricing**), which has significantly stunted Stadia's growth. Other firms that have entered the online gaming industry are Apple, Nintendo's Switch and EA.

3. The Labour Market

- In August 2020, the **UK** unemployment rate rose to **4.9%**, following huge drops in consumer demand and investment.

- Prior to the covid-19 pandemic, the US was experiencing its longest ever economic expansion on record, but then entered a deep recession with unemployment rates last seen during the **Great Depression** at **14.7%** once the virus spread rapidly across states. Most of the impact has been seen in the **gig economy**, i.e. across workers with temporary jobs and who work on an ad-hoc basis, e.g. freelancers.

Trade Unions and Discrimination

- Due to cultural differences, men and women used to get paid significantly different amounts for performing the same job. However, the **Equal Pay Act** was introduced in 1970 in the UK, which prohibited **discrimination** regarding the salaries of men and women.

- **Milton Friedman**, a prominent economist, and **Margaret Thatcher**, the British prime minister from 1979 to 1990, both frowned upon the idea of trade unions. This is because they can, through **collective bargaining power**, push to increase their wages, which raises a firm's **cost of production** (as they must pay more for labour). This can lead to **real-wage unemployment**, as firms are forced to lay off workers they cannot afford, as well as **cost-push inflation**, as firms incur higher costs with higher wages that they then pass onto consumers in the form of higher prices. For example, in 1979 the UK experienced an inflation rate of 27%, and several economists argued that trade unions were one of the main triggers of this.

- In addition, if workers are unhappy with work conditions or have any other issues that are not resolved through discussions with managers, they are more likely to go on **strike** - whereby they seize working until their demands are met. If this occurs across several industries, the lost economic activity during the strikes can translate to a severe slump in the overall GDP of an economy. As well as strikes, employees can also **work to rule**, whereby they only do the bare minimum that is required by them, and decide not to work any extra hours with no pay which is what they may have done if their salaries were raised.

- **Friedman** also argued that by pushing for higher wage rates, workers exposed themselves to a lot more **discrimination**. He argued that employers would discriminate against those who they believed didn't have the skills and qualifications to match the higher wage rate and therefore justify their **Marginal Revenue Product**. So for example black and brown youth unemployment was arguably triggered by the bargaining power of trade unions. This

is why **Thatcher** passed several acts and laws which gradually diminished the power and influence trade unions had over employers.

Monopsony Power

- **Product Market:** the **National Health Service (NHS)** has significant monopsony power over pharmaceutical goods, which it uses to lower the cost of purchasing drugs - and can therefore offer patients the same drugs at much lower prices. This also explains why the prices of pharmaceutical drugs are much higher in the US than in the UK, as American hospitals are private and own smaller portions of the market share - so have less **bargaining power** over their suppliers.

- **Product Market:** the **Big 4** supermarket chains occupy more than 70% of the market share, and are the sole supplier of food from farmers. This means they can negotiate much lower prices for goods (milk, eggs, etc.), however this has sparked a number of protests by farmers, complaining that they have been exploited by these supermarkets.

- **Labour Market:** the **NHS** is the largest employer of doctors and nurses in the UK. **Walmart** is the third largest employer in the world, with approximately 2.3 million employees. According to traditional economic theory, these two firms have the power to reduce **wages** without losing too many workers, as there are few or no alternative employers to turn to. However in reality, most firms that can afford to pay workers high wages will remain doing so in order to maintain their reputation and brand strength, even though the higher wages translate to higher **costs of production**. For example, in November 2020 **Pretty Little Thing** - a fashion company - slashed prices by up to 99% in preparation for **Black Friday**. So for example, items that were £10 were reduced to as little as 10p. But this sparked major concerns as to how the company could afford to reduce their prices so much whilst still making a profit, especially considering the global pandemic that hurt nearly every single business in the UK in some form. However it was then clear that PLT were only able to offer 10p clothing items because they paid their workers in **'sweatshops'** so little. The company witnessed a 40% drop in sales following this promotion, as their reputation was tarnished and they lost several loyal customers. So regardless of the costs they were able to save by paying their workers so little, it was clear PLT had no **ethical objectives** (see notes), and so lost customers as a result.

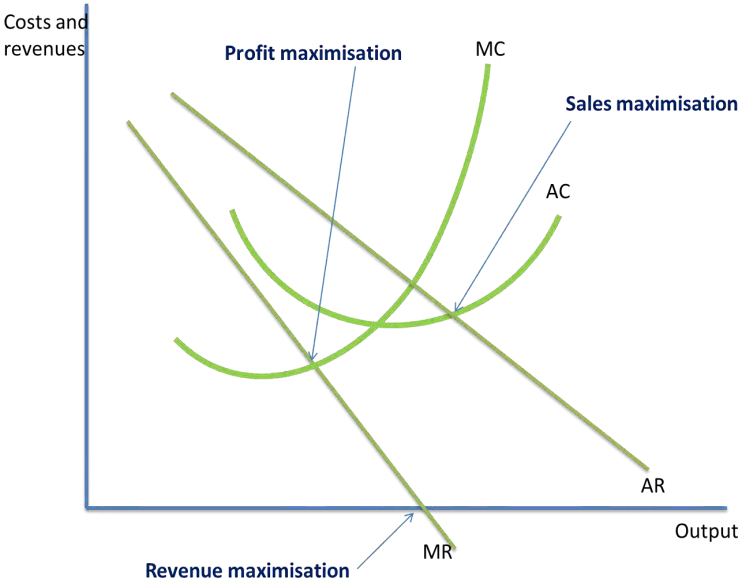
4. The Distribution of Income and Wealth

- The **covid-19** pandemic is said to have 'wiped out' decades worth of poverty alleviation, as tourism came to a halt for most of 2020, and nearly all countries temporarily shut their borders to outsiders to prevent the spread of the virus. In addition, students have been forced to learn from home and take exams from their laptops, which has proved ineffective. This means students are equipped with less skills and fewer qualifications, thus stunting their ability to earn high-paying jobs, which further widens the gap between high and low-income families.

- The coronavirus has also exacerbated the **North-South divide** in the UK, as most people in London work in the services sector, and so can manage to work from home with a laptop and internet connection. In contrast, many households in the North of England have jobs in the manufacturing industry, so find it much harder to be able to work from home and have therefore been made redundant as a result - this is referred to as **structural unemployment**. The UK currently has the most regionally unbalanced economy in Europe.

5. Market Failure and Government Intervention

- In the European Union, firms are regulated by the **European Competition Commission**. In the UK, we have the **Competition and Markets Authority (CMA)**, which oversees the regulatory bodies for specific industries. For example, **OFGEM** regulates the electricity industry, **OFCOM** regulates the telecommunications industry and **OFSTED** regulates the education industry.



- For example, **British Telecommunications (BT)** used to own the majority of the fibre-optic cable network, which allowed the firm to exploit its **monopoly power** by charging households and firms high prices to use the service (i.e. at the point where marginal revenue equals marginal cost on the graph). As a result, **OFGEM** announced in 2015 that it would be forcing BT to open up the cable network to competitors (i.e. TalkTalk, Sky, Virgin Media, etc.) in order to promote competition. Despite BT's several attempts to argue against the policy, it came into effect in April 2017, and households saw prices for

fibre-optics fall dramatically, as BT no longer enjoyed its monopoly power and was forced to compete with other firms to obtain the most market share.

- In 2018, the **CMA** blocked the merger of **Sainsburys** and **Asda**, believing it wouldn't act in the public's best interest due to the monopoly power the two firms could gain from it.

Regulation

- The UK government announced a new regulatory body within the Competition and Markets Authority, called the **Digital Markets Unit (DMU)**. This unit will regulate firms that have a "strategic market status" and are funded by digital advertising, so namely Facebook and Google. This particular approach is called "**ex ante**" regulation, as opposed to the conventional "**ex post**" regulation. Ex post is when the government intervene in the market following the evidence of market power abuse, e.g. if Google exploits consumer data the government will then set rules banning them from collecting data. Ex ante regulation refers to government intervention prior to any market power abuse, so the government will essentially tell firms how to behave rather than punishing them after they have misbehaved. The DMU will arguably strengthen ties with the EU, who share the same view on tech regulation as the UK. However, the UK must make sure not to impose too much regulation on these firms, else it will deter them from investing in the country.

- As previously mentioned, following the attacks on the US Capitol building in January 2021, tech firms including **Apple** and **Facebook** have banned **Parler** (a social media app) from their app stores as Parler is used by several right-wing extremists and was therefore blamed for providing a platform for the event to be planned. As well as this, **Twitter** and **Youtube** also banned Donald Trump's accounts on their platforms, as the president violated their guidelines. This has opened up these tech firms to more regulatory and political scrutiny, as several world leaders have expressed their concerns regarding how much power these firms have over free speech.

- However, there are growing concerns that bodies such as the CMA and ECC are falling victim to **regulatory capture** - a theory arguing that regulatory agencies can become dominated by regulatees which leads to them acting in the best interest of the industry rather than the general public. For example, in 2016 there was a public outcry when energy companies stopped showing consumers how much profit they make off each household. Even though this action meant that firms could increase prices to exploit their **monopoly power** and households wouldn't necessarily be aware, OFGEM sided with the energy companies without sufficient justification.

Deregulation

- By reducing **government intervention** and allowing the **free market** to operate efficiently, several other industries have also seen an increase in contestability. For example, following the **Airline Deregulation Act** in the 1970's, several firms were able to join the market which then triggered the rise of 'low cost'/'budget' airlines. This forced **incumbents** to lower ticket prices to attract customers, which improved **economic welfare** as the lower prices achieved both productive and allocative efficiency.

- Another example of when reduced government regulation resulted in more contestable markets was in the **postal service** industry. Prior to the **Royal Mail** being privatised, this was the only company allowed to send mail and packages in the UK. But now that new entrants have been allowed into the market (i.e. **Hermés**, **Whistl**, etc.), firms have found innovative ways to lower costs and therefore lower consumer prices - which once again improves economic welfare.

Privatisation

- Prior to the privatisation of the **water industry**, water quality in the UK was very poor, however once these firms were privatised there was an initial investment of £160 billion to improve water quality and reduce pollution - a **positive externality**.

- Privatisation does not necessarily result in productivity improvements, as perfectly illustrated by the **probation industry**. Firms operating in this industry were handed over to private ownership in 2014, with the hopes of improving efficiency. However since then, these firms have been **bailed out** by the government several times, until the government announced plans to **re-nationalise** these firms by 2021. Therefore, we can argue that firms in certain industries operate more efficiently in the hands of the government.

Government Failure

- In order to tackle the issue of **climate change**, the European Union introduced an **Emissions Trading Scheme** which adopted a 'cap and trade' approach, whereby firms were allocated a limited number of pollution permits that they could use (i.e. pollute) or sell to other firms if they had a surplus of permits. This essentially created a **market** for pollution permits, so if the demand for them was high prices would increase and vica versa. The main aspect of the ETS was that pollution permits were fixed, and so the amount of pollution emitted from firms as a whole was also fixed. Initially, the scheme was a success as the drop in emissions exceeded initial forecasts. However, following the 2008 **Global**

Financial Crisis (GFC), there was a huge fall in economic activity and firms no longer needed any more pollution permits than they were given from the EU, so the price for these permits fell dramatically. The whole purpose of the ETS was to reduce carbon emissions, and low prices indicated there was an oversupply of pollution permits so it was cheaper for firms to buy permits and continue polluting rather than finding alternative, 'cleaner' ways to produce goods. Prices remained low for several years following the GFC, until the EU introduced a *Market Stability Reversal* mechanism (MSR), whereby they reduced the supply of excess pollution permits firms had to force an increase in prices. Following the MSR mechanism, prices started to increase again, but the reason this can be classed as 'government failure' is because the EU failed to anticipate the price drop following the GFC, which undermined the whole purpose of the Emissions Trading Scheme in reducing the level of pollution in the environment.

- Another example of government failure can be seen in the US, when the **McCarran-Ferguson Act** was passed in 1945 - involving the regulation of **insurance firms**. Prior to this Act, all insurance firms were subject to the same regulation across the country, but policymakers thought that, by handing back regulation to individual states, it would increase efficiency across the insurance industry. The result was the exact opposite of what was anticipated, because industry firms that operated in several different states had to oblige by different rules, which was time-consuming and more costly to abide by. The **National Association of Insurance Commissioners (NAIC)** was then formed to essentially allow insurance regulators to gather and create rules that all states could follow, to reduce the burden for their regulatees.