



**GCE A LEVEL**

**A520U20-1**



S24-A520U20-1



**MONDAY, 20 MAY 2024 – AFTERNOON**

**ECONOMICS – A level component 2**  
**Exploring Economic Behaviour**

2 hours 30 minutes

A520U201  
01

**ADDITIONAL MATERIALS**

A calculator.

A WJEC pink 16-page answer booklet.

**INSTRUCTIONS TO CANDIDATES**

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

You may use a pencil for graphs and diagrams only.

Answer **all** questions.

Write your answers in the separate answer booklet provided, following the instructions on the front of the answer booklet.

Use both sides of the paper. Write only within the white areas of the booklet.

Write the question number in the two boxes in the left-hand margin at the start of each answer, for example 

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Leave at least two line spaces between each answer.

**INFORMATION FOR CANDIDATES**

The number of marks is given in brackets at the end of each question or part-question.

You are reminded of the necessity for good English and orderly presentation in your answers.

Answer **all** questions.

## Things can only get better?

In 2020, the UK government set out its plans for the UK economy over the next decade. These plans focus both on the UK's relationship with the rest of the world and the relationships between the regions of the UK.

### The UK and the rest of the world

The government wants the UK to create new trading relationships with countries across the globe and on 1st February 2021, the UK government formally applied to join the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), a trade agreement between 11 countries: Japan, Australia, Canada, New Zealand, Vietnam, Singapore, Malaysia, Brunei, Mexico, Chile and Peru.

The members of the CPTPP account for 13% of global GDP and 15% of global trade, with a population of 500 million people located in the growing and increasingly rich Asia-Pacific region. The CPTPP reduces trade tariffs for goods, but also sets new rules in areas such as services, investment, intellectual property, digital trade and nationalised enterprises. It is based on commitments to very high levels of liberalisation, limits on government intervention and aims to avoid excessive regulation of businesses. The government's hope is that membership of the CPTPP will allow UK industries to demonstrate their strengths in sectors such as services and digital trade.

The relative weakness of the UK's currency in recent years, makes membership of such trade agreements particularly attractive (**Figure 1**):

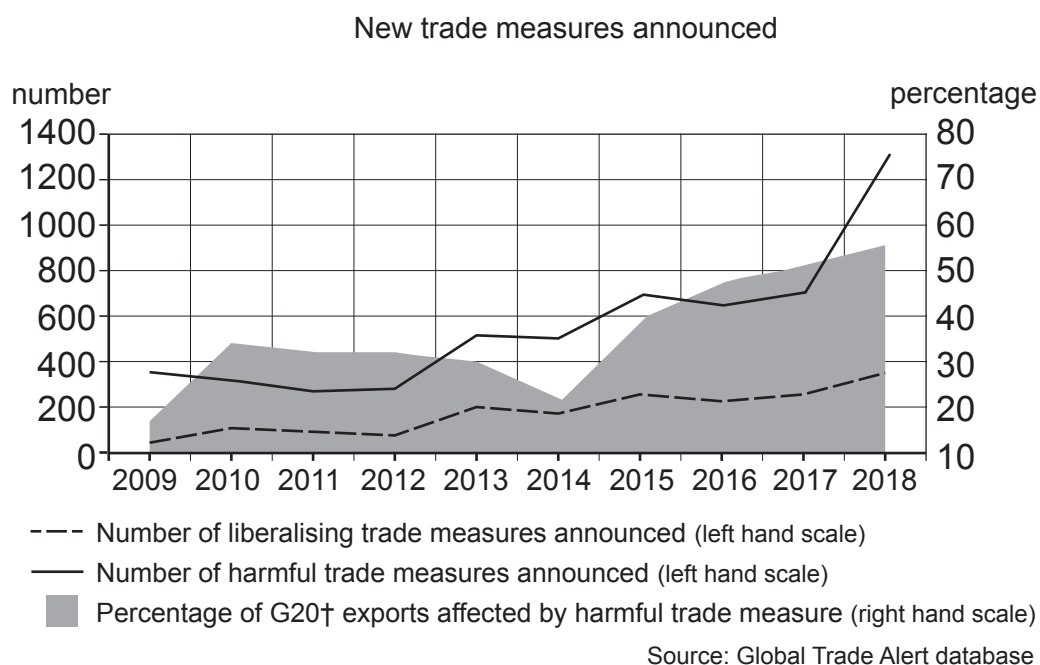
**Figure 1**

Sterling exchange rate index against a weighted basket of currencies  
Jan 2005=100



In some ways, however, the UK's support for free trade goes against a rising tide of global protectionism, as seen in **Figure 2**.

**Figure 2**



†The G20 refers to the world's leading economies, which between them account for 80% of world GDP.

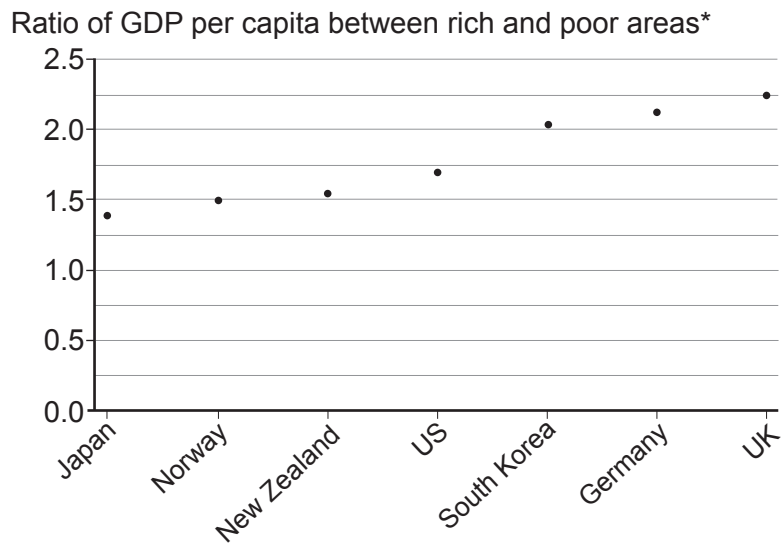
This may be because opening an economy to competition creates losers as well as winners. US industrial workers, for example, have been damaged by rising competition from countries such as China, suggesting that the effects of the UK joining the CPTPP may not be entirely positive.

## UK Regions

A second issue that the UK government wants to deal with is the inequalities between regions within the UK. Politicians have said that the UK needs 'levelling up'. According to some measures, the UK has the most geographically unequal economy in the developed world (**Figure 3**).

**Figure 3**

Measures of inequality in regional GDP per capita, by country



\*The ratio is that between the GDP per capita in the 90th percentile ranked region and the 10th percentile ranked region.

These income inequalities also extend into many other areas such as employment rates, pay, education and health (**Figures 4 and 5**).

Figure 4

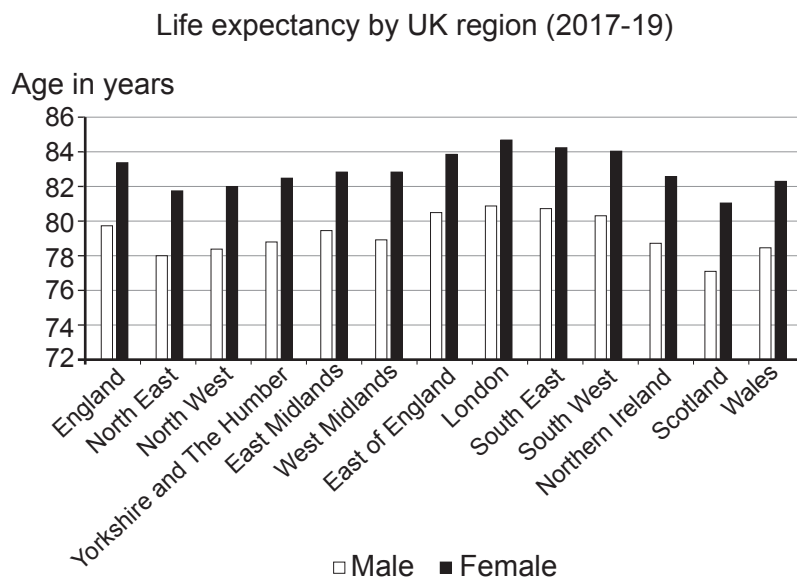
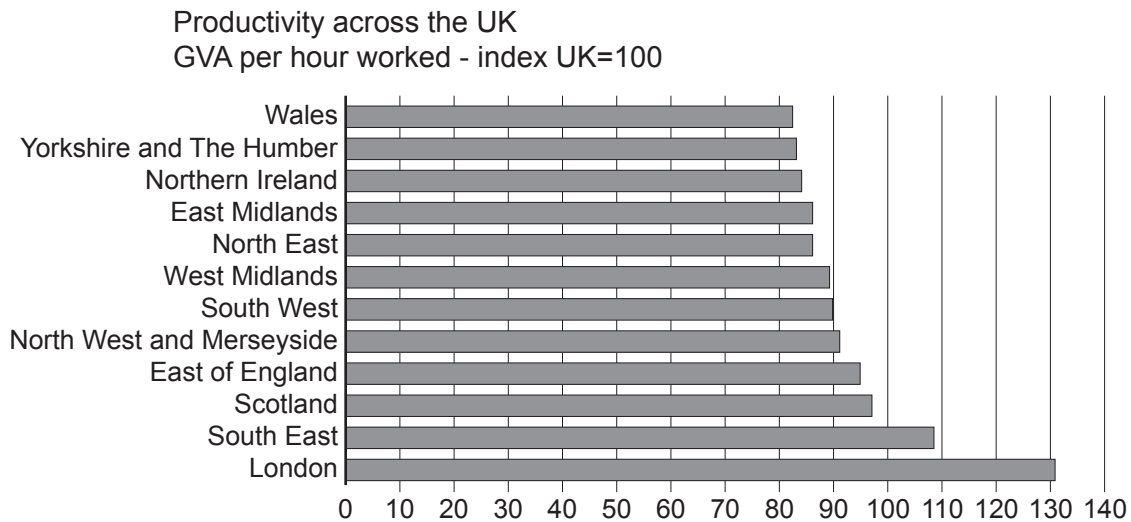


Figure 5



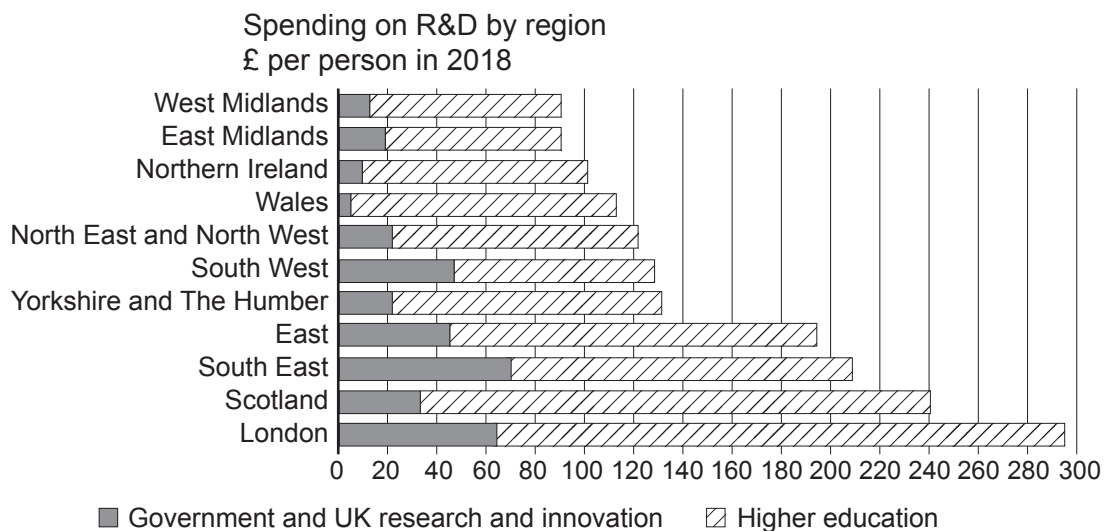
One of the main causes of inequality is the difference in productivity between regions – that's the amount of gross value added (GVA) per hour worked. Gross Value Added is a regional equivalent of GDP (**Figure 6**).

**Figure 6**



One of the factors that has contributed to this productivity gap is that government and universities spend more on research and development (R&D) in South East England (**Figure 7**) than in other regions. Other factors have included low infrastructure spending in areas outside London.

**Figure 7**



In an attempt to tackle these inequalities, the government has published its 'plan for growth', known more informally as 'levelling up'. This plan centres around infrastructure, skills and innovation. The key elements of the plan include:

**Figure 8**

| Extracts from the UK's 'plan for growth' |                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                          | The UK government says that it will...                                                                                                                                                                                                                                                                                                                                                           |
| <b>Infrastructure</b>                    | <p>Stimulate short-term economic activity and drive long-term productivity improvements by investing in broadband, roads, rail and cities, as part of capital spending plans worth £600 billion overall.</p> <p>Support businesses to raise finance, particularly for infrastructure projects via the new UK Infrastructure Bank.</p>                                                            |
| <b>Skills</b>                            | <p>Support productivity growth through high-quality skills and training, providing additional funds and reforming technical education.</p> <p>Continue to focus on the quality of apprenticeships and make additional payments to firms employing new apprentices.</p>                                                                                                                           |
| <b>Innovation</b>                        | <p>Support access to finance that will help increase innovation, including funds to invest in high-growth companies. Continued government support for both new and growing innovative businesses that find it hard to access finance.</p> <p>Develop the regulatory system in a way that supports innovation.</p> <p>Reform the immigration system to attract the brightest and best people.</p> |

Critics argue that many parts of the plan are just as likely to benefit rich areas as poor ones and that the government's commitment to liberalisation and free trade will have a particularly negative effect on low-income regions. This will therefore widen inequalities rather than reduce them. The issues involved are not as simple as a North-South divide – inequalities within a region can be greater than inequalities between different regions – incomes in some northern cities such as Manchester and York average 50% more than poorer ones such as Scarborough and Blackpool. Levelling up is more complex than it might at first appear.

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 Using the data, explain why productivity might be lower in some parts of the UK than in others. [5]
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 Using the data, explain why the UK government might want to reduce regional income inequality in the UK. [5]
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 How effective is the UK's 'plan for growth' (Figure 8) likely to be in dealing with the regional inequalities in the UK presented in the data? [10]
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 Using the data, discuss the extent to which membership of the CPTPP might be beneficial for the UK economy. [10]
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 Using the data, discuss whether the weak sterling exchange rate will be more likely to improve or worsen living standards in low-income areas of the UK. [10]

## Long live monopolistic competition!

The theory of monopolistic competition was developed in the 1930s by Joan Robinson and Edward Chamberlin. Monopolistic competition is a form of imperfect competition, and gets its name from being a market which has lots of competing firms each with a small amount of monopoly power.

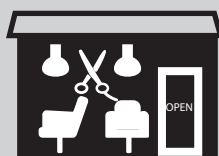
In the modern world it is certainly not merely an abstract theory like perfect competition. Firms in monopolistic competition are often small family businesses found on high streets such as hairdressers and nail bars (**Figure 1**). Firms operating in these locations often only pay their fixed costs such as rent and business rates every quarter or sometimes annually. This means that they can survive in the short term as long as they can pay their variable costs.

**Figure 1**

Hair and Beauty Business in the UK



Over half of hair and beauty businesses have an annual turnover of less than £99 000.



There are over 43,000 hair and beauty businesses in the UK.



The hair and beauty industry generates over £7.5bn in turnover for the UK economy.



Over two-thirds of hair and beauty businesses employ fewer than five people and 94% employ fewer than ten people.



There has been a massive growth in the number of hairdressing, barbering and beauty businesses over the last few years.



Hair and beauty businesses have higher survival rates after five years than many other sectors.

Source: NHBF.

The data below (**Figure 2**) shows the weekly demand at different prices for haircuts at a hairdresser/barber. In theory, firms in monopolistic competition seek to maximise profits.

**Figure 2**

Bob's Barbers

| Price | Haircuts/day | Total Revenue | Marginal Revenue | Total Cost | Marginal Cost |
|-------|--------------|---------------|------------------|------------|---------------|
| £24   | 0            |               |                  | £ 250      |               |
| £22   | 10           |               |                  | £ 340      |               |
| £20   | 20           |               |                  | £ 400      |               |
| £18   | 30           |               |                  | £ 480      |               |
| £16   | 40           |               |                  | £ 580      |               |
| £14   | 50           |               |                  | £ 700      |               |
| £12   | 60           |               |                  | £ 840      |               |
| £10   | 70           |               |                  | £1020      |               |
| £8    | 80           |               |                  | £1280      |               |

The restaurant sector is also an example of monopolistic competition. In recent years, many small restaurants have taken advantage of the services offered by firms such as Deliveroo, which enable restaurants to widen their customer base. Customers can order either on their website or by using the Deliveroo app. By adding their postcode, a customer can find all the restaurants delivering in their local area; they then choose their food and place their order. Once the order is ready, a Deliveroo rider will pick it up and bring it to the customer. Potentially this will increase the sales, revenue and profit of the restaurant – but it comes at a price.

Firms such as Deliveroo, Uber Eats and Just Eat make their money from a charge to customers for delivery and also to the restaurant – charging around 30% on each order placed. So, if you order a takeaway worth £20, the delivery company will take around £7.20 – that's 30% plus VAT, having a big impact on a restaurant's profits. Most restaurants work on around a 70% profit margin on their variable costs so firms like Deliveroo are taking virtually half of their profit on each order. However, according to Deliveroo, restaurants that use its service can see revenues increase by up to 30%.

Is a monopolistically competitive market desirable for society as a whole? At its simplest, monopolistic competition is imperfect from an efficiency point of view compared to perfect competition. But do consumers and society in general really lose out from the extensive provision of restaurants and hairdressers? Recent Competition and Market Authority investigations into funeral directors and estate agents suggest that monopolistic competition can pose problems for consumers but not on the scale of those seen in oligopolistic markets.

Sources: Kentonline 17/3/2021; lumenlearning.com

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 Using the information provided on hairdressing and restaurants outline the characteristics of monopolistic competition. [5]
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 Using **Figure 2**, calculate the marginal revenue (MR) and marginal cost (MC) for each of the output levels (haircuts/day) from 0 to 80. Record the answers in your **pink** answer booklet.  
Using your answers explain at what level of output Bob's Barbers will, in theory, maximise profits. [7]
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 Using a costs and revenue diagram, evaluate the effects on a restaurant's abnormal profits as a result of using Deliveroo to increase its sales. [10]
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 Evaluate the view that a monopolistically competitive firm will always leave an industry if it fails to make at least normal profit. [7]
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 With reference to the data, discuss the extent to which monopolistic competition leads to a reduction of economic welfare. [11]

**END OF PAPER**

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| Surname        | <i>StemUp Model Solution</i>                                                   |
| Answer booklet | Write the question number in the left-hand margin at the start of each answer. |

Question  
number

1 1

*Productivity is output per unit of input, here measured as gross value added (GVA) per hour worked. Figure 6 shows London (about 131) and the South East (about 108) well above the UK average of 100, while Wales (about 82) and Yorkshire and The Humber (about 83) are lowest.*

*One reason is R&D spending. Figure 7 shows London spending about £295 per person on R&D compared with only about £90 in the West and East Midlands, and government research spending is concentrated in London and the South East (about £65 to £70 per person) against about £5 in Wales. R&D creates new products and more efficient processes, so firms in these regions produce more output per hour, and it attracts high-tech firms and skilled graduates to cluster near universities. Low infrastructure spending outside London also raises firms' costs and limits the market they can reach, so productive firms and skilled workers stay where they are. The gap then reinforces itself, as higher productivity means higher wages which draw skilled workers away from poorer regions. Poorer health (male life expectancy about 78 in the North East against about 81 in London, Figure 4) and London's high value finance and tech sectors add to the difference.*

1 2

*Figure 3 shows the UK has the highest ratio of GDP per capita between its rich and poor areas of the countries shown, about 2.25 compared with about 1.4 in Japan, and incomes in Manchester and York average 50% more than in Scarborough and Blackpool. This links to other gaps: female life expectancy is about 84.7 in London but about 81.8 in the North East (Figure 4), and the employment rate is 79.3% in the South West but only 70.2% in Northern Ireland (Figure 5).*

The government may want to reduce this because people in low-income regions have lower living standards: they cannot afford as good a diet, housing or healthcare, leading to worse health, lower educational attainment and unequal life chances. This raises government spending on benefits, the NHS and the criminal justice system while reducing tax revenue. It also lowers the UK's overall output, since unemployed or ill workers mean the economy operates below its potential. Finally, inequality causes a brain drain of skilled young people to London and the South East, which perpetuates the problem in poor regions and puts pressure on housing and infrastructure in rich ones.

1 3

The data show large regional inequalities: productivity ranges from about 82 in Wales to about 131 in London (Figure 6) and employment rates from 70.2% in Northern Ireland to 79.3% in the South West (Figure 5).

The infrastructure element, part of capital spending plans worth £600 billion, could be effective. Building roads, rail and broadband creates jobs directly in the short run, raising employment in regions such as the North East (71.2%) through the multiplier effect. In the long run, better infrastructure cuts firms' transport and communication costs and widens their market, so businesses are more likely to locate outside London. This raises GVA per hour and therefore wages in poorer regions, narrowing the gap. However, such projects have long time lags (HS2 is an example) and better transport links may even worsen the problem by making it easier for skilled workers to commute or move to London. The UK Infrastructure Bank may help firms raise finance, but as the extract notes, this is just as likely to benefit firms in rich areas.

Spending on skills and apprenticeships raises the human capital of workers, increasing their productivity and employability. If low-skilled workers are concentrated in poorer regions, this should raise incomes there more than elsewhere. However, it is a national policy, so it may reduce income inequality in general without closing the gap between regions, and it does not address health gaps such as the 3 year difference in female life expectancy (Figure 4).

Support for innovative businesses could help close the R&D gap in Figure 7, where the Midlands receive about £90 per person against about £295 in London. But access to specialist finance is easiest close to financial centres such as London, and the most successful high-growth firms tend to be in successful cities. Similarly, immigration reform may attract skilled workers, but migrants usually prefer major metropolitan areas rather than low-skill areas. Many inequalities are within regions, such as incomes in Manchester and York being 50% higher than in Scarborough and Blackpool, and there is little in the plan to target these intra-regional or rural-urban gaps. The commitment to free trade and liberalisation, such as joining the CPTPP, may also harm low-income regions that rely on low-productivity industries, working against levelling up. Overall, the plan is likely to be only partly effective. The infrastructure and skills elements tackle the right causes of the productivity gap, but they will take many years to work and, because they are not targeted at the poorest areas, they may benefit rich areas as much as poor ones. Its effectiveness depends on how much of the £600 billion is actually spent outside London and the South East and whether it is linked to policies on health and local deprivation.

1 4

Membership of the CPTPP gives UK firms better access to a market with 13% of global GDP, 15% of global trade and 500 million people in the growing and increasingly rich Asia-Pacific region. Lower tariffs reduce the price of UK exports, so export demand rises, increasing AD (as  $X - M$  rises) and, through the multiplier, real GDP and employment. This is particularly valuable as protectionism is rising: Figure 2 shows harmful trade measures rising from about 350 in 2009 to about 1300 in 2018, affecting over 50% of G20 exports, so a deal that opens markets helps to counter this and partly replace the reduced access to EU markets since Brexit. The weak pound strengthens these gains. Figure 1 shows the sterling index at around 80, compared with about 100 before 2008, making UK exports price competitive. The CPTPP also sets rules on services, digital trade and intellectual

property, which match the UK's comparative advantage, so the UK can specialise in what it produces at lowest opportunity cost and gain from trade. Greater competition from imports also forces UK firms to become more efficient and innovative, raising productivity and potential growth, while consumers gain from lower prices and more choice, putting downward pressure on inflation. However, the benefits may be smaller than they appear. Free trade creates losers as well as winners: as with US industrial workers hit by competition from China, low-productivity UK firms may be outcompeted, causing structural unemployment. This is likely to hit low-income regions hardest, widening the inequalities shown in Figures 5 and 6, and resources will only be redeployed in the long run if workers are occupationally and geographically mobile. The agreement's limits on government intervention and regulation may weaken protection for low-skilled workers and restrict support for strategic or infant industries, and the government loses tariff revenue. The exchange rate is a weighted average, so sterling may not be weak against CPTPP currencies, and it may not stay weak. Also, most CPTPP members are far away and many are not low-wage economies, so the threat from cheap imports may be limited, but so may the trade gains, as distance raises transport costs and the UK already trades freely with some members. On balance, membership is likely to be beneficial to the UK economy overall, especially for the service and digital sectors where the UK is strong, but the gains are likely to be modest in the short run and unevenly spread. The extent of the benefit depends on whether the pound remains competitive and whether policies such as levelling up help workers in poorer regions adjust, otherwise it could widen regional inequality.

1 5

Figure 1 shows the sterling index at around 80, roughly 20% below its level of about 100 before 2008 and about 10% below its 2015 peak, so the pound is weak.

A weak pound could improve living standards in low-income areas. It makes UK exports cheaper in foreign currency and imports more expensive, so demand for

exports rises and domestic consumers switch from imports to UK-produced goods (expenditure switching). This raises net exports and AD, and through the multiplier creates jobs and higher incomes. Low-income areas often have more manufacturing, so firms there that export, or compete with imports, should see higher demand, helping to raise low employment rates such as 71.2% in the North East and 70.2% in Northern Ireland (Figure 5). A cheaper pound also makes UK assets cheaper, so it may attract inward FDI to low-wage regions, especially if infrastructure is improved through levelling up. If growth raises GVA per head, it may improve health and life expectancy in the longer term (Figure 4).

However, the weak pound may worsen living standards. Imports of food, fuel and clothing become more expensive, and because these take up a larger share of spending for low-income households, the effect is regressive. Imported raw materials and components also raise firms' costs, causing cost-push inflation which reduces real wages; in the worst case this creates stagflation, particularly damaging for regions with low value-added sectors. Low R&D spending (about £90 per person in the Midlands, Figure 7) and low productivity (about 82 in Wales, Figure 6) mean firms in poorer areas may lack the skills and funding to take advantage of export opportunities, so the gains may go mainly to already successful areas such as London and the South East. Also, exports may be price inelastic in the short run (the J-curve), so the benefits take time. Living standards are also more than income: a weak pound makes foreign holidays more expensive.

Overall, a weak pound is more likely to worsen living standards in low-income areas in the short run, as higher import prices hit poorer households immediately while export gains are slow. In the long run it could improve them, but this depends on whether the pound stays weak and against which currencies, whether a region is more export or import heavy, and whether policies such as CPTPP entry and levelling up give local firms the capacity to export.

2 1

Monopolistic competition has a large number of small firms: there are over 43,000 hair and beauty businesses, over two-thirds employ fewer than five people and 94% fewer than ten. Products are differentiated, as each hairdresser or restaurant offers a different style, cuisine, location or service such as delivery through Deliveroo, so each firm has some price-setting power and a downward-sloping demand curve. Firms use non-price competition, such as local advertising and online ordering apps, to attract customers. Barriers to entry and exit are low, shown by the massive growth in the number of hairdressing, barbering and beauty businesses, so in the long run firms only make normal profits, consistent with over half of hair and beauty businesses having a turnover below £99,000. Consumers also have imperfect information about the quality of each firm.

2 2

MR and MC are calculated per haircut (change in total ÷ change in output of 10):

| Price | Q  | TR   | MR  | TC    | MC  |
|-------|----|------|-----|-------|-----|
| £24   | 0  | £0   | -   | £250  | -   |
| £22   | 10 | £220 | £22 | £340  | £9  |
| £20   | 20 | £400 | £18 | £400  | £6  |
| £18   | 30 | £540 | £14 | £480  | £8  |
| £16   | 40 | £640 | £10 | £580  | £10 |
| £14   | 50 | £700 | £6  | £700  | £12 |
| £12   | 60 | £720 | £2  | £840  | £14 |
| £10   | 70 | £700 | -£2 | £1020 | £18 |
| £8    | 80 | £640 | -£6 | £1280 | £26 |

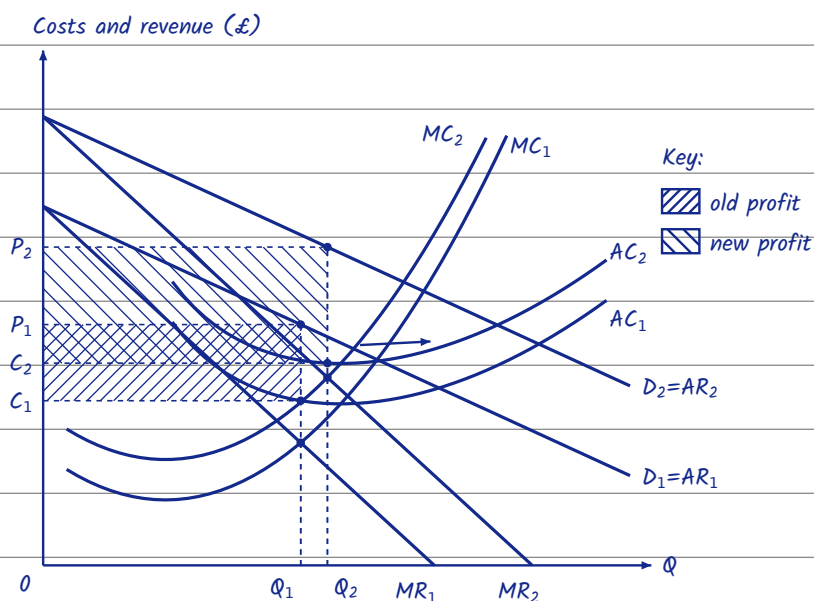
$MR = \Delta TR / \Delta Q$ , e.g.  $£220 \div 10 = £22$ ;  $MC = \Delta TC / \Delta Q$ , e.g.  $£90 \div 10 = £9$  (per haircut)

Profits are maximised where  $MC = MR$ . Bob's Barbers will maximise profit at 40 haircuts a day, charging £16, where  $MR = MC = £10$ . Up to 40 haircuts, each extra unit has MR greater than MC (for example  $£14 > £8$  between 20 and

30), so it adds to profit and should be produced. Beyond 40, MC is greater than MR (£12 > £6 between 40 and 50), so producing more would reduce profit. So all profitable units are produced and no loss-making ones. Check: profit = TR - TC = £640 - £580 = £60 at 40, the highest level (it is also £60 at 30 because the 10 units between them add equal revenue and cost).

2 3

Abnormal (supernormal) profit is profit above normal profit, where  $AR > AC$  at the profit maximising output  $MC = MR$ . Using Deliveroo widens a restaurant's customer base, as customers can order from home, and Deliveroo claims revenues can rise by up to 30%. As the diagram shows, demand shifts right from  $D_1=AR_1$  to  $D_2=AR_2$ , with MR shifting from  $MR_1$  to  $MR_2$ . At the same time Deliveroo charges the restaurant about 30% on each order (£7.20 on a £20 order including VAT), which is a variable cost, so MC and AC shift up from  $MC_1$  and  $AC_1$  to  $MC_2$  and  $AC_2$ .



The new profit maximising output is  $Q_2$  where  $MC_2 = MR_2$ , at price  $P_2$  and average cost  $C_2$ . Abnormal profit changes from  $(P_1 - C_1) \times Q_1$  to  $(P_2 - C_2) \times Q_2$ . In the diagram profit rises because the increase in revenue is greater than the increase in costs, so the new profit area is larger than the old one. However, this is not certain. Most restaurants work on a 70% margin on variable

costs, so on a £20 order they make £14, but Deliveroo takes £7.20, around half of this profit. Sales only rise by up to 30% and may rise by much less. There is also a risk of cannibalisation: if customers who would have ordered or eaten in anyway now use Deliveroo, the restaurant earns much less on each order without gaining extra sales, so costs rise by more than revenue and profit falls. Deliveroo also puts many restaurants side by side on one app, increasing competition and the cross elasticity of demand, so demand becomes more price elastic and the restaurant loses some ability to raise prices. Other platforms such as Uber Eats and Just Eat may charge differently, so the effect depends on which is used. Even if abnormal profits rise in the short run, in monopolistic competition barriers to entry are low, so new restaurants will enter (which Deliveroo makes easier) and shift each firm's demand left until only normal profit is made in the long run. Overall, Deliveroo is likely to raise profits in the short run only if the extra orders are genuinely new and the margin after commission stays positive; in the long run abnormal profits are likely to be competed away.

2 4

Normal profit is the minimum profit needed to keep an entrepreneur and the firm's resources in their current use; it is included in costs and occurs where  $AR = AC$  ( $TR = TC$ ). It represents the opportunity cost of the resources used.

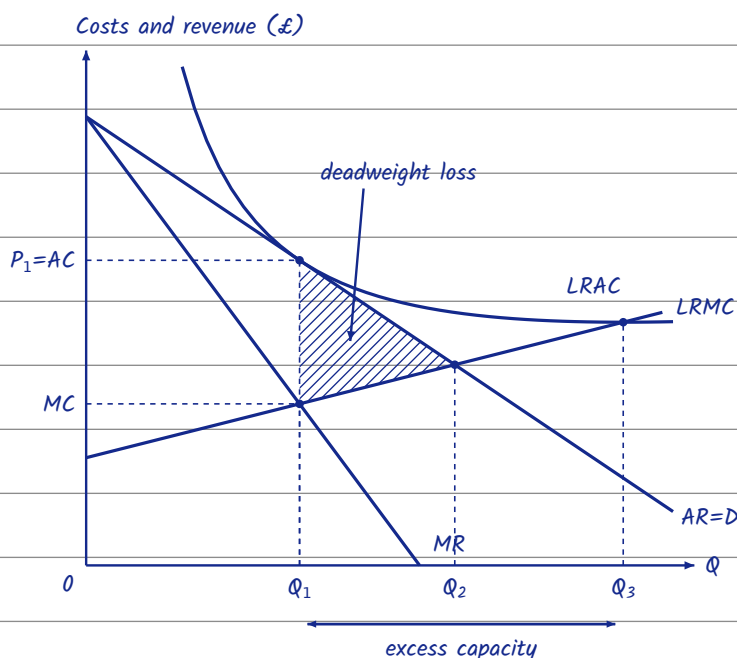
In the long run, if  $AR < AC$  the firm is not covering the opportunity cost of the owner's time and capital, so these resources would earn more elsewhere and the firm should leave the industry. If  $TC > TR$  continues, the firm will also run out of cash and be forced to close.

However, a firm will not always leave immediately. In the short run it should stay open as long as price covers average variable cost ( $AR > AVC$ , or  $TR > TVC$ ), because it makes a contribution to fixed costs such as rent, which it would have to pay even if it closed; it only shuts down when  $AR < AVC$ . The extract notes that hairdressers often pay rent and business rates only quarterly or annually, so they can survive in the short term as long as they cover variable costs. Firms may also wait, expecting that other firms will leave the market so

that demand for their product rises and normal profit returns, or accept losses if they are a new entrant building a customer base or if profits are temporarily low during a recession. Finally, not all firms are profit maximisers: small family businesses may be kept going by family contributions or for lifestyle reasons. So the view is true only in the long run and for firms that are profit maximisers. In the short run, a firm making less than normal profit will usually stay as long as it covers its variable costs and expects conditions to improve.

2 5

Economic welfare at a micro level is the difference between social benefit and social cost from an activity, maximised where resources are allocated efficiently ( $P = MC$ ); at a macro level it refers more broadly to living standards. Monopolistic competition can reduce welfare because firms face a downward-sloping demand curve. As the diagram shows, in the long run the firm produces  $Q_1$  where  $MR = LRMC$  and new entry has removed abnormal profit, so  $AR = LRAC$ .



At  $Q_1$  price is above marginal cost ( $P > MC$ ), so the firm is allocatively inefficient: consumers value extra output more than it costs to make, yet it is not produced, giving the deadweight welfare loss between  $Q_1$  and  $Q_2$ . It is also productively inefficient, as  $Q_1$  is below  $Q_3$  where  $LRAC$  is minimised, so there is

excess capacity, for example too many half-empty restaurants and salons each with high average costs. Firms may also spend heavily on advertising, which is wasteful and may mislead consumers, and the large number of firms with imperfect information leads to bounded rationality, so consumers may not choose the best value. The CMA investigations into funeral directors and estate agents suggest consumers can be exploited, and over half of hair and beauty businesses have turnover below £99,000, suggesting low wages and living standards for those who work in them.

However, the welfare loss may be small. Barriers to entry are low, so firms only earn normal profit in the long run and consumers are not victims of profiteering; the CMA found problems are not on the scale of oligopoly. Product differentiation means consumers' varied tastes are better met than in perfect competition, so excess capacity may simply be the price of variety and convenience, which consumers value. Strong competition encourages innovation and consumer focus, such as online ordering through Deliveroo. At a macro level the sector adds welfare, with 43,000 hair and beauty businesses generating over £7.5bn in turnover, creating jobs and tax revenue, and many small firms pursue community rather than profit objectives. Regulating such a market would also be impractical, although sector investigations are possible.

Overall, monopolistic competition does lead to some loss of allocative and productive efficiency, but the loss is likely to be small and largely offset by greater choice, innovation and the absence of abnormal profits in the long run. It depends on the market: where information is very poor, as with funeral services, welfare losses are larger, but in markets such as restaurants and hairdressers it is likely to increase welfare overall.