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Candidate surname <i>StemUp Model Solution</i>		Other names
Centre Number	Candidate Number	

Pearson Edexcel Level 3 GCE

Monday 20 May 2024

Afternoon (Time: 2 hours)

Paper reference **9EB0/02**

Economics B

Advanced

PAPER 2: Competing in the global economy

You do not need any other materials.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 100.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- Calculators may be used.

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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Answer ALL questions.

SECTION A

Read the following extracts (A to E) before answering Question 1.

Write your answers in the spaces provided.

Extract A

Trade Union Congress report on inflation

Inflation in 2023 has not been driven by pay, it was driven by energy and overseas commodity price shocks. While workers and their unions sought to protect themselves with higher wages, they are not driving price rises. But even though inflation originated from higher costs on international markets, the government has focused on measures that seek to reduce demand in the economy.

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The Bank of England's response has been to rapidly raise interest rates from 0.1% to 5.25%. This approach hits some groups far harder than others. Costs have increased rapidly for households with unsecured debt, people renting properties, those with outstanding mortgage payments and firms relying on credit. Bank and energy company profits, city bonuses and salaries for certain professional and business services have risen.

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(Source: adapted from <https://www.tuc.org.uk/research-analysis/reports/workers-are-not-blame-cost-living-crisis>)

Extract B

Food poverty and health

In June 2023, a School And Public Health Nurses Association (SAPHNA) report found a deterioration in children's health due to a rise in the cost of food. The Vice-Chair of the Local Government Association's Community Wellbeing Board said:

"These findings are deeply concerning and show that a rise in the cost of living is having harmful effects on children's health. Food inflation is at its highest for almost 50 years and this is hitting the poorest households hardest. If a child has a free school meal, that will save their family £500 a year. This is now more important than ever."

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In October 2023, the Deputy Conservative Party Chair, Lee Anderson, claimed that "there is no poverty in Britain". Mr Anderson said that he "doesn't believe" in "poverty nonsense" and that the UK "is not an impoverished island".

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(Source: adapted from <https://www.local.gov.uk/about/news/concerning-food-inflation-rise-impacts-childrens-health-lga-responds-saphna-report> and <https://www.independent.co.uk/tv/news/lee-anderson-poverty-tory-conference-b2423960.html>)

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Extract C**Child Poverty in 2023**

Education is starting to be seen as a luxury, as the costs associated with getting a child to school and successfully engaging in education become too much. Many households are going without heating or washing due to the significant costs of doing so. This is leaving children without basic levels of hygiene and wellbeing, with many living in cold, damp homes. They cannot afford the basic standard of physical care required to make their attendance in education possible, let alone the essential resources required to travel to their education settings, or access learning online and at home.

5

(Source: adapted from <https://buttleuk.org/news/news-list/state-of-child-poverty-2023/>)

Extract D**The index for bread prices in the United Kingdom from 2018 to 2023**

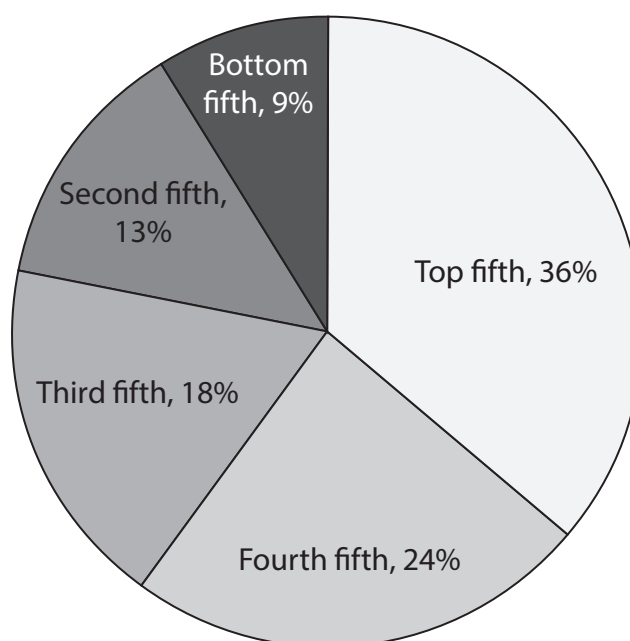
Year	Average price white sliced bread (800 g)	Index
2018	£1.05	100
2019	£1.07	102
2020	£1.05	100
2021	£1.06	101
2022	£1.20	114
2023	£1.36	

(Source: adapted from <https://www.ons.gov.uk/economy/inflationandpriceindices/timeseries/czoh/mm23>)



Extract E

How total household disposable income was shared between quintiles in the UK in 2022



(Source: adapted from <https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/householddisposableincomeandinequality/financialyearending2022>)

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- 1 (a) Using the information in Extract D, calculate, to the nearest whole number, the index for UK bread prices in 2023. You are advised to show your working.

(4)

$$\text{Index} = (\text{price in current year} \div \text{price in base year}) \times 100$$

Base year is 2018 (index = 100, average price £1.05)

$$\text{Index for 2023} = (£1.36 \div £1.05) \times 100$$

$$£1.36 \div £1.05 = 1.295$$

$$1.295 \times 100 = 129.5$$

$$\text{Index for UK bread prices in 2023} = 130$$



Sales data shows that demand for 800 g white sliced bread increased by 0.6% between 2022 and 2023.

- (b) Using this data and Extract D, calculate, to 2 decimal places, the price elasticity of demand (PED) for 800 g white sliced bread between 2022 and 2023. You are advised to show your working.

(4)

$PED = \% \text{ change in quantity demanded} \div \% \text{ change in price}$

$\% \text{ change in price 2022 to 2023} = ((£1.36 - £1.20) \div £1.20) \times 100 = (0.16 \div 1.20) \times 100 = 13.33\%$

$\% \text{ change in quantity demanded} = 0.6\%$

$PED = 0.6\% \div 13.33\% = 0.045$

$PED = 0.05$ (to 2 d.p.), so demand for bread is highly price inelastic.



(c) With reference to Extract A, explain **one** impact trade unions could have on wage rates.

(4)

One impact is that trade unions can raise wage rates for their members. Trade unions bargain collectively with employers about wage rates, which gives workers more power than if each negotiated alone.

They can put pressure on employers to meet their wage demands through collective action such as strikes, overtime bans or working to rule, which threaten the firm's output and profits.

Extract A shows that workers and their unions sought to protect themselves with higher wages in 2023. Therefore, the wages of trade union members are more likely to keep pace with inflation, protecting their real wages, although this may raise firms' costs.



(d) Analyse **two** ways in which high inflation affects individuals.

(6)

Firstly, high inflation reduces the value of real wages when prices rise faster than money wages. Each pound buys fewer goods and services, so individuals' purchasing power falls and they cannot afford as many goods, reducing their living standards.

Extract C shows this: many households are going without heating or washing due to the significant costs of doing so, and children are left without basic levels of hygiene and wellbeing.

Secondly, high inflation in essentials such as food and energy reduces living standards most for low-income households, who spend a larger proportion of their income on necessities. Extract C shows that many children are living in cold, damp homes and food inflation is at its highest for almost 50 years (Extract B). This may negatively affect physical health and wellbeing, for example through poor diets and illness, which could also reduce school attendance and future earnings.



- (e) With reference to Extract C, discuss the likely impact of falling attendance in schools on the UK economy.

(8)

Education is an important determinant of the quality of labour as a factor of production. An educated workforce tends to be more skilled, and this determines the productivity of labour, that is output per worker per hour.

Extract C shows that education is starting to be seen as a luxury as the costs of getting a child to school become too much, so attendance is falling. As attendance falls, so does the attainment of children, who are the workers of the future. Lower skills mean lower labour productivity, and since productivity is an important determinant of costs of production, unit labour costs in the UK would rise.

If costs and prices rise more rapidly in the UK than for firms in other countries, UK exports become less price competitive, reducing international competitiveness and worsening the current account.

Lack of education can also lead to higher levels of unemployment and economic inactivity, raising government spending on benefits and reducing tax revenue. Overall, this may reduce the productive potential of the UK economy, shifting LRAS to the left and lowering long-run growth.

However, the impact will depend upon the scale of falling attendance: the more widespread it is, the greater the impact. It also depends on how long falling attendance is sustained; a short-term problem caused by the cost of living crisis may have little lasting effect. Attendance can be improved through increased investment in education, free school meals as an incentive to attend (worth £500 a year to a family, Extract B), and macroeconomic policy aimed at keeping inflation low and stable. On balance, if sustained, the impact on future productivity and growth is likely to be significant.

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In Extract B, Lee Anderson claims that "there is no poverty in Britain".

(f) Assess the extent to which poverty exists in Britain.

(10)

Absolute poverty is when a household's income is insufficient to afford basic necessities such as food, shelter, heating and clothing. Relative poverty is when a household's income is significantly below the average, commonly defined in the UK as below 60% of median household income, so they cannot participate fully in normal society.

There is evidence of absolute poverty in Extracts B and C, where basics such as food and heating are becoming less affordable for an increasing number of households. Food inflation is at its highest for almost 50 years, hitting the poorest households hardest, and many households are going without heating or washing. Children are living in cold, damp homes and cannot afford to travel to school, which suggests their basic needs are not being met.

Relative poverty is also clearly present: Extract E shows the bottom fifth of households receive only 9% of total disposable income, while the top fifth receive 36%, four times as much. Poverty is complex and multidimensional, including income and access to basic needs such as food, education, healthcare and housing. Low wages, high living costs, high housing costs, unemployment and underemployment, inadequate social support systems and inequalities in education and healthcare all suggest that poverty exists in Britain.

However, Lee Anderson may be thinking of absolute poverty in a global sense, as defined by the World Bank as living on less than \$2.15 a day. By this measure very few people in Britain are poor, because of the welfare state, the NHS and free education, so Britain seems to be experiencing relative poverty rather than absolute poverty.

Nevertheless, due to the cost of living crisis and falling real incomes, more people might



now be experiencing absolute poverty, as shown by the rising use of food banks and the deterioration in children's health found by SAPHNA. Absolute and relative poverty can be reduced through in-work and out-of-work benefits, progressive taxation and the redistribution of income, so the extent of poverty depends on government policy.

In conclusion, there will always be some relative poverty in Britain, but the level of absolute poverty could be reduced by government policy. Therefore, the claim that there is no poverty does not appear to align with the economic reality for many people in Britain, who experience both relative and, increasingly, absolute poverty.



- (g) With reference to Extract A, assess the impact of high imported energy and commodity prices on the circular flow of income in the UK.

(12)

The circular flow of income model shows money flowing between households and firms: households spend on goods and services (C), and firms pay factor incomes (Y). It describes injections into the flow, which are investment (I), government spending (G) and exports (X), and leakages or withdrawals, which are savings (S), taxation (T) and imports (M).

Extract A explains that inflation in 2023 was driven by energy and overseas commodity price shocks. Because UK demand for imported energy and commodities is price inelastic in the short run, higher world prices increase the value of imports, so more income leaks out of the UK circular flow to foreign producers. Households must spend more of their income on energy bills, leaving less for domestically produced goods and services.

Unless this increase in the value of leakages is offset by an increase in the value of injections, there would be a net leakage from the circular flow of income ($S + T + M > I + G + X$). This reduces aggregate demand and, through the negative multiplier effect, national income falls by more than the initial leakage, which may lead to lower or negative GDP growth and rising unemployment. The Bank of England raising interest rates from 0.1% to 5.25% adds to this by increasing saving and reducing investment, a further fall in injections.

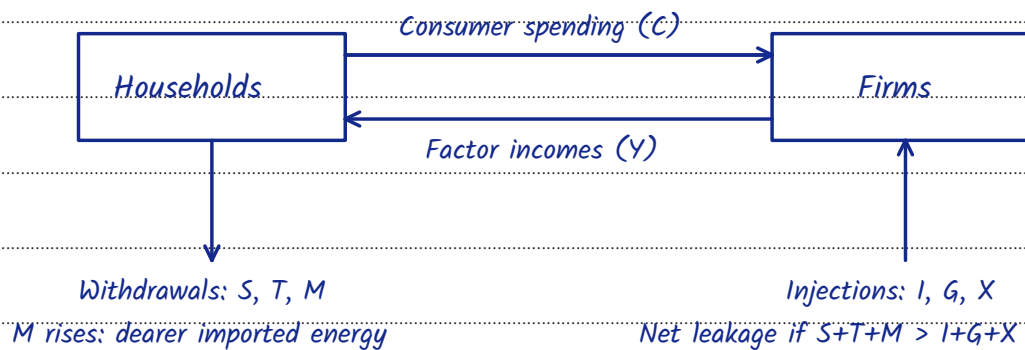
However, the size of the net leakage and the impact on GDP growth will depend upon how high energy and commodity prices rise, and on how long these high prices are sustained; if they fall back quickly the impact is short term. The impact will also depend upon the level of investment, value of exports and level of government spending in the same period. For example, the UK government's energy price guarantee raised G and offset part of the leakage, and some UK firms export oil and gas, so higher export revenues are an injection. Higher energy company profits (Extract A) may also be taxed



or spent within the UK.

Overall, high imported energy prices are likely to cause a net leakage and slower growth, but the magnitude depends on the offsetting injections, especially government spending.

Circular flow of income



- (h) With reference to Extract E, assess the possible impact of income inequality on the UK economy.

(12)

Income inequality refers to the unequal distribution of income among the population.

Extract E shows that in 2022 the top 40% of households received 60% of total disposable income (36% + 24%), while the bottom 40% received only 22% (9% + 13%). The top fifth received four times the share of the bottom fifth.

Income inequality can hinder economic growth because it limits the ability of lower-income groups to participate in education, skills development and entrepreneurship. This wastes human capital, lowering labour productivity and the productive potential of the economy, so LRAS grows more slowly.

When a significant portion of the population does not have adequate resources, it reduces consumer spending. Lower-income households have a higher marginal propensity to consume than the rich, who save a larger share of extra income, so concentrating income at the top reduces consumption and AD, which is a main source of economic growth in the UK, as consumption is around 60% of AD.

High income inequality can also create barriers to social mobility, as lower-income groups may lack access to quality education and healthcare (as Extract C shows, education is becoming a luxury). This can perpetuate a cycle of poverty and inequality across generations. It can erode social cohesion and trust; disparities in wealth and opportunities can create social unrest and higher crime rates, raising government spending on policing and welfare and creating an opportunity cost.

However, some inequality can benefit the economy, as it provides incentives for people to work hard, gain skills, take risks and start businesses, and higher savings by the rich can fund investment. The impact also depends on the policies used: progressive taxation, increasing the National Living Wage, improving access to quality education and healthcare and providing targeted social support might reduce income inequality, although



higher taxes could reduce incentives.

Moreover, Extract E shows disposable income, which is already after taxes and benefits, so redistribution has reduced some inequality. Overall, the current level of inequality in the UK is likely to harm growth, mobility and social cohesion, so reducing it is crucial for achieving sustainable economic growth and a better quality of life for all members of society.

(Total for Question 1 = 60 marks)

TOTAL FOR SECTION A = 60 MARKS



P 8 0 9 5 8 A 0 1 5 2 8

SECTION B

Read the following extracts (F and G) before answering Question 2.

Write your answer in the space provided.

Extract F

Small number of large multinational firms dominate cloud computer services

In October 2023, the Office of Communications (Ofcom), the UK Government-approved regulatory authority for the broadcasting, telecommunications and postal industries, referred the public cloud infrastructure services market to the Competition and Markets Authority (CMA). This was for an independent market investigation to consider whether there are competition concerns and, if so, what interventions might improve the supply of these important services for UK customers.

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Cloud services allow remote access to computing resources. They are being rapidly adopted by many businesses and have become an essential part of how many digital services are delivered to consumers. Ofcom has estimated that the market for cloud services in the UK was worth up to £7.5 billion in 2022.

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In its study, Ofcom identified several features in the supply of cloud services that make it more difficult for customers to switch cloud suppliers.

The features that Ofcom is most concerned about are:

- Egress fees – charges that cloud customers must pay to move their data to another supplier
- Discounts – that may incentivise customers to use only one cloud provider
- Technical barriers to switching – that may prevent customers from being able to switch between different cloud suppliers.

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(Source: adapted from <https://www.gov.uk/government/news/cma-launches-market-investigation-into-cloud-services>)

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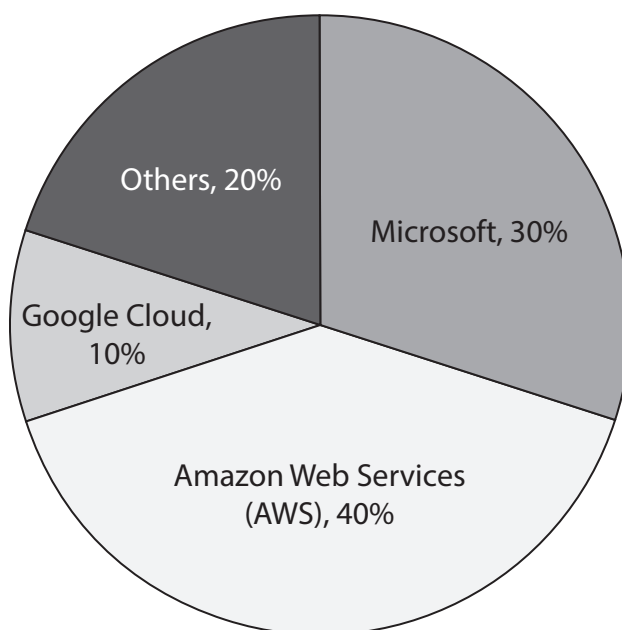
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Extract G

UK cloud computer services market share, 2023



(Source: adapted from https://www.ofcom.org.uk/news-centre/2023/ofcom-refers-uk-cloud-market-to-cma-for-investigation#:~:text=There%20are%20two%20leading%20providers,70%2D80%25%20in%2020222))

- 2 Evaluate the methods by which the activities of multinational corporations (MNCs) such as Microsoft, Amazon and Google may be controlled.

(20)

Multinational corporations (MNCs) are firms that operate or produce in more than one country. The main ways in which their activities can be controlled are legal control by governments and regulators, pressure groups, social media and self-regulation.

Extract G shows that the UK cloud computer services market is dominated by a small number of big firms: AWS has 40%, Microsoft 30% and Google Cloud 10%, a three-firm concentration ratio of 80%. This suggests an oligopoly market structure. Such a market structure means firms have a large amount of market power and there are high barriers to entry, such as egress fees, discounts that tie customers to one provider and technical barriers to switching (Extract F). This leads to high profits for firms such as Microsoft and high prices and less choice for consumers in a market worth up to £7.5 billion in 2022.

Legal controls on the activities of MNCs can be established by national governments. In the UK, Ofcom has referred the cloud market to the Competition and Markets Authority (CMA). The CMA can investigate, fine firms up to 10% of global turnover for abusing their market power, block mergers and even force them to reduce barriers to entry, for example by banning egress fees or requiring interoperability so customers can switch suppliers easily. Governments could also introduce price controls or a windfall tax on excessive profits. This should increase competition, lowering prices and improving allocative efficiency.

However, the impact of legal controls is limited because, by definition, MNCs produce and sell in more than one country, so it is difficult for individual national governments to control their global activities. MNCs can threaten to relocate investment, and they can use transfer pricing to shift profits to low-tax countries. In addition, large MNCs have political influence through lobbying and can afford expensive legal representation to



resist or delay legal controls, while a fine of a few million pounds may be small relative to their profits. Regulators also face asymmetric information about complex technical markets, which risks regulatory capture or government failure. International co-operation, such as the OECD global minimum corporate tax of 15% or the EU Digital Markets Act, may therefore be more effective.

Pressure groups can raise public awareness of the market power of MNCs and organise boycotts of products and demonstrations to highlight excessive profits, poor working conditions or tax avoidance. This threatens the firm's reputation and revenue, encouraging changes in behaviour. In a similar way, social media can be used by groups and individuals to raise awareness of the activities of MNCs, including the firms that provide social media services such as Google, which can spread information quickly at very low cost.

However, the effectiveness of pressure groups and social media is limited in the cloud market, as customers are mainly businesses that are locked in by switching costs, so a boycott is difficult. MNCs such as Google may also control the platforms used for campaigns, and public attention is often short-lived.

Self-regulation is a possible source of control, as large MNCs seek to co-operate with governments, adopt codes of conduct and corporate social responsibility policies, and reduce the likelihood of direct government or even international action to limit their activities. For example, the firms could voluntarily reduce egress fees before the CMA forces them to. However, self-regulation will depend upon the willingness of shareholders to accept lower profits in return for a more ethical business model, and firms with 70% of the market between two of them have little incentive to give up profitable barriers to entry.

In conclusion, legal control by a powerful regulator such as the CMA is likely to be the most effective method for the UK cloud market, because it can directly remove barriers



to switching and impose fines. However, its effectiveness depends on the size of penalties, the regulator's information and international co-operation, since these MNCs operate globally. The best approach is a combination: legal control backed by international agreements, with pressure groups and social media increasing the reputational cost of anti-competitive behaviour and encouraging self-regulation.

(Total for Question 2 = 20 marks)

TOTAL FOR SECTION B = 20 MARKS



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QUESTION 3 BEGINS ON THE NEXT PAGE



SECTION C

Read the following extracts (H and I) before answering Question 3.

Write your answer in the space provided.

Extract H

Will artificial intelligence (AI) replace people?

Despite their limitations *ChatGPT* and other recently released AI models hold the promise of automating all sorts of tasks that were previously thought to be only in the realm of human creativity, reasoning, writing, creating graphics and summarising and analysing data. This has left economists unsure how jobs and overall productivity might be affected.

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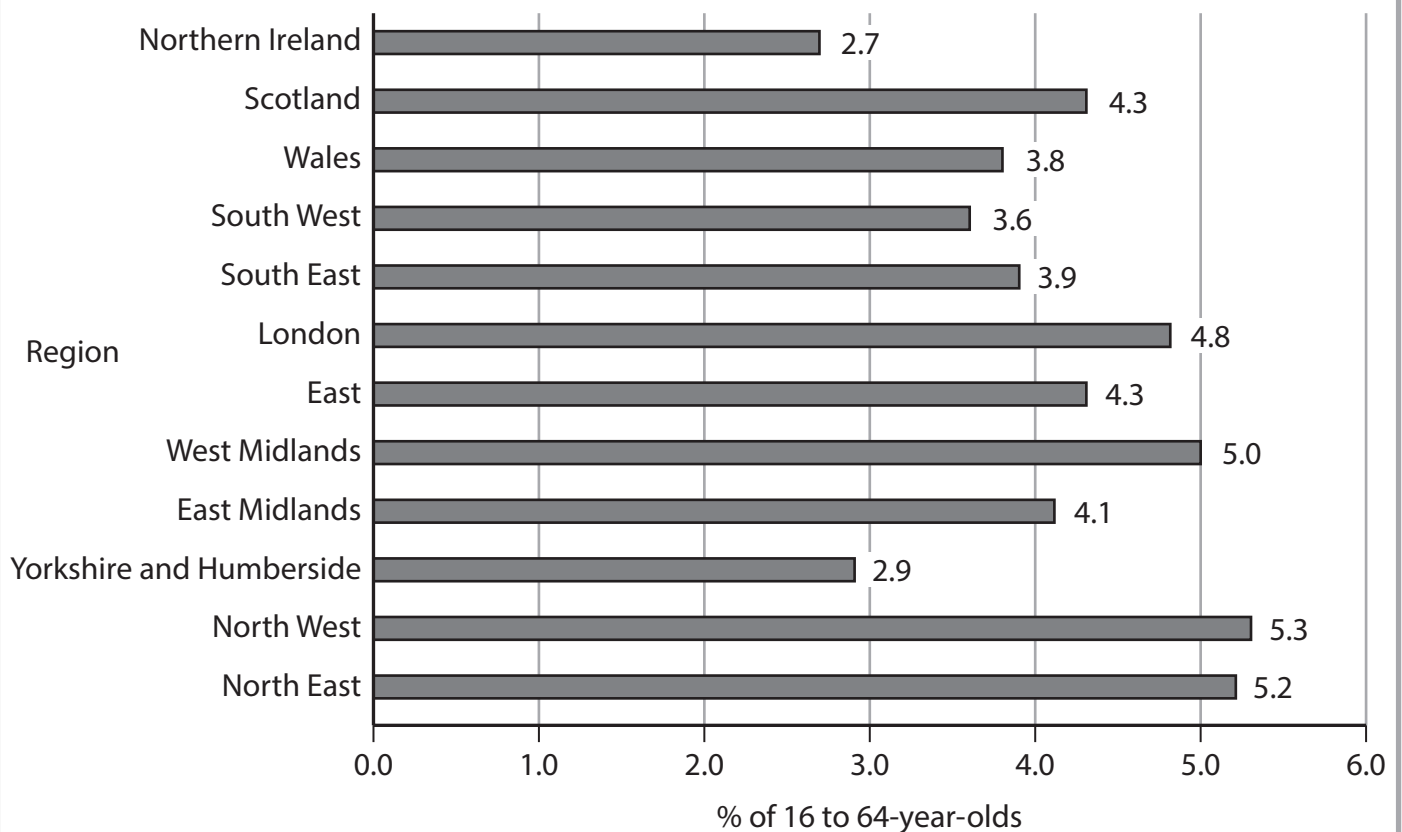
For all the amazing advances in AI and other digital tools in the last 10 years, their record in improving prosperity and widespread economic growth is discouraging. Although a few investors and entrepreneurs have become very rich, most people have not benefitted. Some jobs have completely disappeared after being automated.

10

(Source: adapted from <https://www.technologyreview.com/2023/03/25/1070275/chatgpt-revolutionize-economy-decide-what-looks-like/>)

Extract I

UK unemployment by region, September 2023



(Source adapted from: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/regionallabourmarket/september2023>)



- 3 Evaluate the view that the main causes of unemployment are technological and structural.

(20)

Unemployment is when people of working age are willing and able to work but cannot find a job. Technological unemployment occurs when workers are replaced by machines, automation or AI. Structural unemployment occurs when there is a long-term decline in an industry, leaving a mismatch between the skills and location of workers and the jobs available. Other causes of unemployment are occupational and geographical immobility, demand deficiency (cyclical unemployment) and frictional unemployment.

Extract H suggests that AI models such as ChatGPT could automate tasks previously thought to require human creativity, reasoning, writing and analysing data, and that some jobs have completely disappeared after being automated. Automation, AI and robotics can increase productivity but may result in job losses in sectors heavily affected, such as manufacturing, retail and increasingly office work. This creates demand for new skills and retraining, so workers whose skills become obsolete face structural unemployment, especially older workers who are occupationally immobile.

The regional differences in unemployment in Extract I support the structural view. The North East has the highest rate at 5.2%, followed by the West Midlands and North West at 5.0%, areas that suffered the decline of traditional industries such as coal, steel, shipbuilding and car manufacturing. This suggests structural unemployment in the north, with firms locating in the South where skill levels match job vacancies; the South East is only 3.9% and the South West 3.6%.

However, the emergence of new industries and job opportunities in technology-related sectors may actually reduce unemployment. In the long run, technology lowers costs and prices, raising real incomes and demand, creating jobs in software, data and green industries. Extract H notes that economists are unsure how jobs will be affected, and the UK unemployment rate was only around 4% in 2023, close to full employment,

which suggests technology has not caused mass unemployment.

The regional data can also be explained by other causes. Lower unemployment in some regions such as the South East may suggest demand deficient unemployment in regions such as the North West and North East, where incomes and AD are lower, so firms need fewer workers. Regional differences also suggest that geographical immobility is a factor: high house prices and rents in the South East and family ties prevent unemployed workers in the north from moving to where vacancies are. Moreover, London has a high rate of 4.8% despite strong tech industries, which cannot be explained by industrial decline. The low unemployment in Northern Ireland (2.7%) suggests that a more open border with the EU and free trade might be important in reducing unemployment. In a recession, such as 2008 to 2009 or 2020, cyclical unemployment from a fall in AD is far more important than technology, as unemployment rises in all regions at once.

The relative importance of each cause also depends on policy. More proactive strategies and policy interventions, such as apprenticeships, retraining schemes and regional investment, can help facilitate a smoother transition for workers into new industries and roles, reducing technological and structural unemployment, while monetary and fiscal policy can reduce demand-deficient unemployment.

In conclusion, technological and structural factors are likely to be the main long-run causes of unemployment, particularly the regional unemployment shown in Extract 1, and AI may make them more important in future. However, in the short run demand deficiency is often the main cause, and immobility of labour explains why structural change leads to persistent regional unemployment. Therefore, the view is only partly valid: the causes are interlinked, and their importance depends on the stage of the economic cycle and the region considered.



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(Total for Question 3 = 20 marks)

TOTAL FOR SECTION C = 20 MARKS
TOTAL FOR PAPER = 100 MARKS



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