AQA

AS
ECONOMICS

Paper 2 The national economy in a global context

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DO NOT WRITE ANY ANSWERS IN THIS INSERT. YOU MUST ANSWER THE QUESTIONS IN THE ANSWER BOOKLET PROVIDED.

CONTEXT 1: ARTIFICIAL INTELLIGENCE

Questions 21 to 26

- **Extract A:** **Industry employment and the potential for automation, selected UK industries, 2017**
- **Extract B:** **Artificial intelligence: a cause for concern**
- **Extract C:** **Seizing the opportunities**

CONTEXT 2: UK EXPORTS

Questions 27 to 32

- **Extract D:** **Total UK exports and imports with selected non-EU countries, 2016**
- **Extract E:** **A world of opportunities**
- **Extract F:** **But are the benefits likely to be sustained?**

Context 1 **Total for this context: 50 marks**

ARTIFICIAL INTELLIGENCE

Extract A: Industry employment and the potential for automation, selected UK industries, 2017

Industry	Employment (000s)	Percentage of jobs with the potential for automation
Accommodation and food services	1 784	65
Agriculture, forestry and fishing	351	61
Construction	2 367	45
Education	3 266	27
Health and social work	4 177	35
Information and communication	1 278	23
Manufacturing	2 943	49
Professional, scientific and technical activities	2 340	32
Transport and storage	1 602	58
Wholesale, retail and repair of motor vehicles	4 195	64

Note: Automation can be described as the use of technology to perform a process or procedure without human assistance.

Source: IPPR report, Managing Automation, 2017, and ONS, UK Labour market, 2017

Extract B: Artificial intelligence: a cause for concern

Artificial intelligence (AI) refers to the creation of technology that makes it possible for machines to behave 'intelligently', to learn from experience and perform human-like tasks. It has the potential to enhance the quality of our lives in many ways, from 'smart' gadgets that act on our spoken instructions, to driverless cars. Predictably, AI and the use of robots have led to greater automation of tasks. A report by the Institute for Public Policy Research (IPPR) suggests that up to 44% of jobs in the UK could feasibly be automated which could equate to around 13.7 million job losses.

Whilst the timescale is uncertain, the changes are expected to take place over the next 10 to 20 years. Inevitably, some types of employment, industries and regions are likely to be affected more than others, and consequently we might expect to see a sharp rise in structural unemployment. According to the report, jobs in the north-east of England and Northern Ireland are most at risk. Subsequently, those affected would suffer a huge loss of spending power, and given that many of the job losses are expected to be in low to middle-income occupations, where the workers tend to spend a high proportion of their wage, the impact on the economy is likely to be severe. There could be a large fall in consumption, and the downwards multiplier and accelerator effects should not be underestimated.

Source: News reports, December 2017

Extract C: Seizing the opportunities

Automation might not necessarily be all bad for the economy. The IPPR report suggests it is likely to transform jobs rather than eliminate them and new jobs will be created. Greater use of technology has the potential to increase UK productivity by as much as 1.4% each year, which would help to repair the UK's productivity gap and be a welcome boost to economic growth. In addition, increasing productivity should enable workers to benefit from pay increases without creating inflationary pressure. However, the gains might not be shared equally, with only those workers who have the opportunity to retrain, or who are capable of using the most advanced machinery, seeing their incomes rise. This is likely to make it harder for the Government to achieve a more equitable distribution of income.

The Government is committed to embracing automation and overcoming potential obstacles. It has announced increased government spending on technological education and training. This will help to deal with skills shortages and the reskilling of unemployed workers. Funding has also been allocated to improving infrastructure, to try to ensure that the worst affected regions are not left behind.

Investment by firms should also increase. This is because one of the main determinants of investment is the need to keep up with changes in technology, taking advantage of the benefits of automation, such as increased efficiency and productivity. These enable firms to maintain a competitive edge. However, in the current climate of uncertainty, firms may require more encouragement to invest, for example, by the government providing subsidies or tax incentives.

Source: News reports, December 2017

Turn over for Context 1 questions

Context 1 – Questions 21 to 26

2 1 Define 'investment' **Extract C** (line 15).

[3 marks]

2 2 Use **Extract A** to calculate the total number of jobs that could be lost in the health and social work **and** education industries as a result of automation.

[4 marks]

2 3 Use **Extract A** to identify **two** significant points of comparison between employment and the potential for automation in selected UK industries.

[4 marks]

2 4 Use **Extract A** to construct a bar chart to show employment in the **four** industries with the highest percentage of jobs under threat from automation in 2017.

[4 marks]

2 5 **Extract C** (lines 10–11) states: 'It has announced increased government spending on technological education and training.'

Explain how an increase in government spending could affect the national debt.

[10 marks]

2 6 **Extract B** (lines 9–11) states: 'Inevitably, some types of employment, industries and regions are likely to be affected more than others, and consequently we might expect to see a sharp rise in structural unemployment.'

Use the extracts and your knowledge of economics to evaluate different policies that a government could use to try to prevent a rise in structural unemployment.

[25 marks]

There are no questions printed on this page

Turn over for Context 2

Context 2 **Total for this context: 50 marks**

UK EXPORTS

Extract D: Total UK exports and imports with selected non-EU countries, 2016

Country	Value of exports £ billion	Value of imports £ billion
Australia	8.6	4.5
Brazil	3.0	2.4
Canada	8.3	7.1
China	16.8	42.3
India	5.7	9.7
Japan	12.5	11.5
Saudi Arabia	6.2	2.2
South Africa	4.3	4.4
Switzerland	21.0	13.7
USA	99.6	66.3

Source: Geographical breakdown of the current account, The Pink Book, 2017, ONS

Extract E: A world of opportunities

At the end of 2017 there was good news about UK exports. According to Bank of England data, UK firms have been taking advantage of the weaker value of the pound, which fell significantly in the months after the UK voted to leave the EU. Exports have been increasing to the main markets of Europe and the USA, as well as to other markets, such as Australia, the Far East and India. In addition, the Bank of England reported that export activity had increased across a range of sectors, for example, construction materials, chemicals and accountancy services.

Economists at Standard Chartered Bank say there are many more exporting opportunities. They have identified the Emerging 7 (E7)*, a group of seven countries with whom the UK currently has annual exports of £24 billion. Collectively these countries represent over 50% of the world's population and 20% of global GDP. With young, growing populations and expanding middle classes, their GDP is likely to grow steadily for many years. Consequently economists believe that closer trading links with the E7 could add almost £10 billion per year to UK national income. This would be a welcome boost at a time of low domestic demand due to falling real incomes and high consumer debt repayments.

The UK's total trade deficit widened in the three months to January 2018. This was partly due to a £1.3 billion increase in the value of goods imported. Given that the UK is very dependent on imports, it is important that the increase in exports seen towards the end of 2017 is sustained. It is needed to reduce the trade deficit and have other positive impacts on the economy.

*E7 countries according to Standard Chartered Bank: Bangladesh, Indonesia, Nigeria, Pakistan, Vietnam, China and India.

Source: News reports, March 2018

Extract F: But are the benefits likely to be sustained?

An increase in exports should help to reduce unemployment, which is already very low at 4.2%. The multiplier effect of an increase in exports should lead to further increases in short-term growth, but can the benefits be sustained?

Firms need to ensure that the goods and services they produce for export markets are genuinely competitive, rather than merely relying on a weaker pound. When the Bank of England increased Bank Rate, the value of the pound against the US dollar increased sharply, so the benefits of the weak pound cannot be relied upon indefinitely. The UK economy continues to grow, albeit slowly. Hopefully, firms will feel encouraged by the increases in demand and output, and, according to the accelerator process, this should have positive effects on investment. Further investment and innovation should lead to efficiency and productivity gains, which should result in improvements in international competitiveness.

Recently the UK has experienced disinflation, yet the CPI rate of inflation is currently 2.7%, still above the Government's target. Given that the global economy is expanding at its fastest pace for seven years, and the UK is currently benefiting from this growth, there could be further pressure on inflation. Consumption is also expected to rise as some workers start to see long-awaited real pay increases. However, this could lead to cost-push inflation if productivity gains are not achieved. In response, the Bank of England has hinted at an earlier than expected tightening of monetary policy to try to reduce the impact of these potential inflationary pressures.

Source: News reports, March 2018

Turn over for Context 2 questions

Context 2 – Questions 27 to 32

2 7 Define 'disinflation' **Extract F** (line 12).

[3 marks]

2 8 Use **Extract D** to calculate the UK's **mean** trade balance with the selected non-EU countries in 2016.

[4 marks]

2 9 Use **Extract D** to identify **two** significant points of comparison between the geographical breakdown of UK exports and imports.

[4 marks]

3 0 Use **Extract D** to construct a bar chart to show the UK's **four** largest single export markets to non-EU countries.

[4 marks]

3 1 **Extract F** (lines 8–10) states: 'Hopefully, firms will feel encouraged by the increases in demand and output, and, according to the accelerator process, this should have positive effects on investment.'

Explain how the accelerator process is likely to affect economic growth.

[10 marks]

3 2 **Extract E** (lines 17–19) states: '…it is important that the increase in exports seen towards the end of 2017 is sustained. It is needed to reduce the trade deficit and have other positive impacts on the economy.'

Use the extracts and your knowledge of economics to discuss the significance of an increase in exports for the performance of the UK economy.

[25 marks]

END OF SOURCES