

Surname	Centre Number	Candidate Number
First name(s)		2



GCE AS

B520U10-1



MONDAY, 16 MAY 2022 – MORNING

ECONOMICS – AS component 1
Introduction to Economic Principles

1 hour

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	10	
2.	10	
3.	12	
4.	8	
5.	11	
6.	9	
Total	60	

ADDITIONAL MATERIALS

A calculator.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** the questions in the spaces provided.

If you run out of space use the continuation page(s) at the back of the booklet, taking care to number the question(s) correctly.

INFORMATION FOR CANDIDATES

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

Answer **all** the questions in the spaces provided.

1. One way of preparing for retirement is to start saving into a pension fund.

The table below shows the possible total projected final value that an individual could expect to receive at the age of 65.

	If the individual starts to save into the fund on their	If the fund grows at the low-rate (£)	If the fund grows at the mid-rate (£)	If the fund grows at the high-rate (£)
Total projected final value of pension fund	25th birthday	167 000	269 000	448 000
	35th birthday	114 000	160 000	231 000
	45th birthday	70 000	87 500	110 000
	55th birthday	33 700	37 700	42 300

(a) Define opportunity cost.

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An individual decides to delay starting their saving into a pension from their 25th to their 45th birthday.

(b) Assuming that the fund grows at the mid-rate, calculate the opportunity cost in terms of the individual's final total projected pension fund value. [2]

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In 2012 the UK Government started a scheme called ‘auto-enrolment’ to encourage workers to save more for their retirement. It automatically deducts a percentage of the worker’s salary if they earn over £10 000 and puts this into a pension scheme alongside contributions from both the government and employer. By February 2019, 10 million workers had been auto-enrolled but 10% had opted out.

Pension contributions (as % of pre-tax annual earnings)

DATE	EMPLOYEE	GOVERNMENT	EMPLOYER	TOTAL
6th April 2019 onwards	4%	1%	3%	8%

Source: moneysavingexpert.com

- (c) Using the data, discuss whether opting out of ‘auto-enrolment’ by employees is a rational decision.

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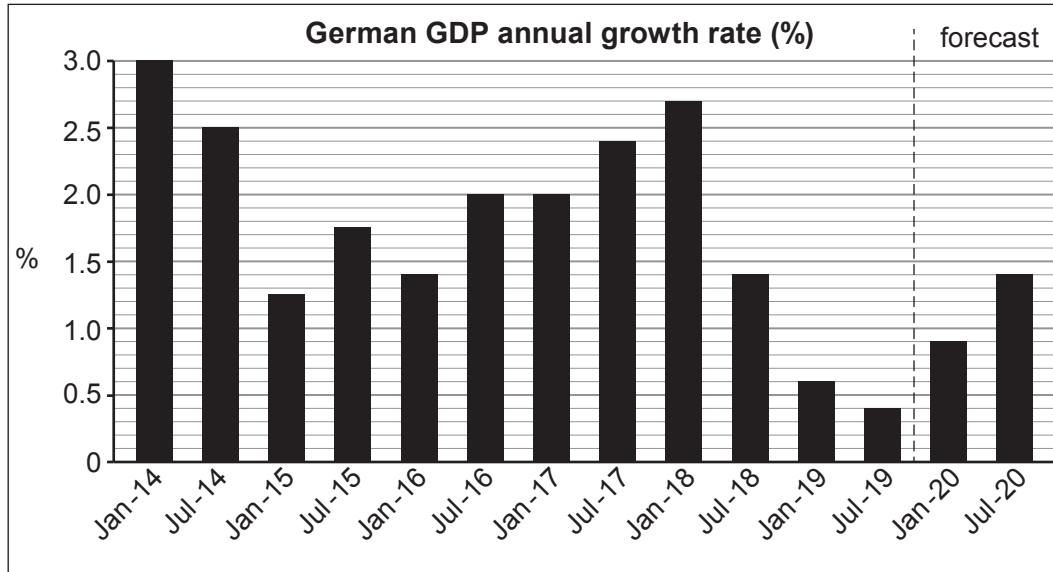
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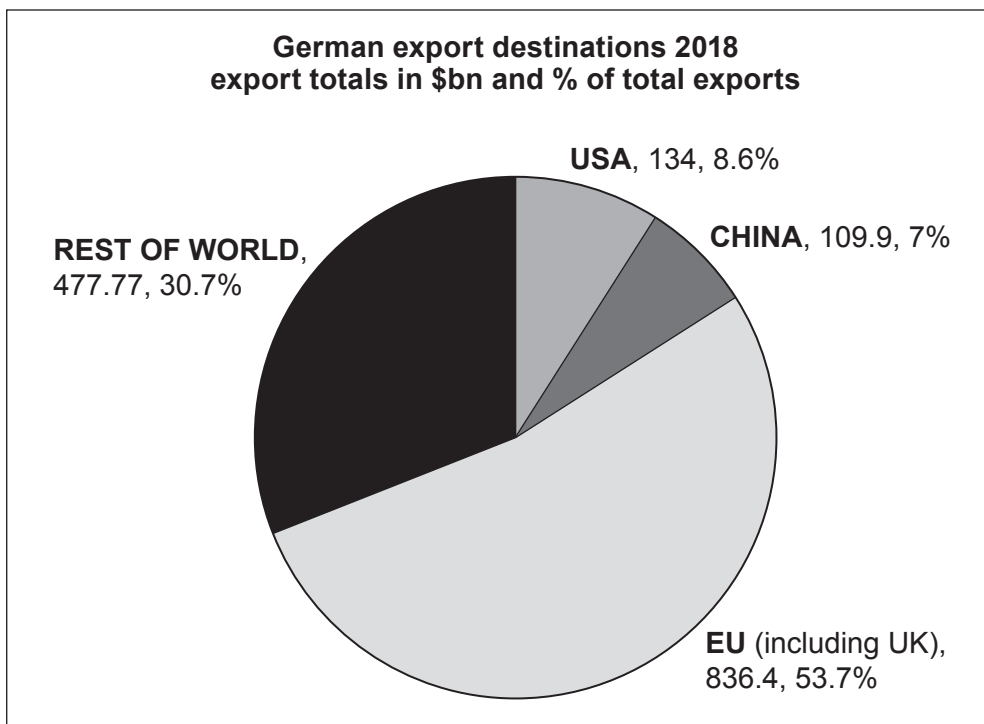
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- The main strength of the German economy is its manufacturing industry. The top 10 exports contributing to Germany's trade surplus include vehicles, machinery, pharmaceuticals and basic metals.

In 2018 the USA put tariffs on steel and aluminium imports from Europe, Mexico and Canada. These consisted of a 25% tax on steel and 10% tax on aluminium. Further tariffs by the USA were then put on Chinese goods worth \$250bn in annual trade. The USA proposed further tariffs on \$11bn of EU goods.



Source: adapted from tradingeconomics.com



Source: adapted from: <http://www.worldstopexports.com/germanys-top-import-partners/>

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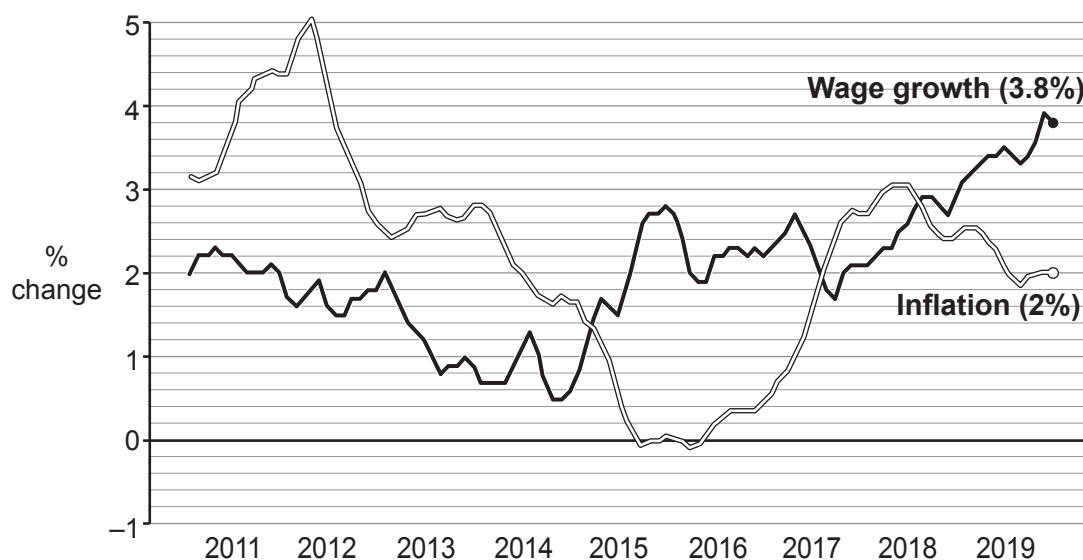
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3. In September 2019 the unemployment rate in the UK fell to its lowest level since 1975 driving up the rate of wage growth, but this still left 853 000 job vacancies throughout the UK. This was during a period of uncertainty for the UK economy as the UK Government was still negotiating the withdrawal from the European Union.



Source: adapted from BBC: <https://www.bbc.co.uk/news/business-49646201>

- (a) Using the data, analyse how the level of consumption in the economy may have changed between 2011 and 2019.

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(b) Based on this data, consider whether UK unemployment is likely to increase or decrease from 2019 onwards.

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- 4.** More than 9 out of 10 British universities pay their average male employee more than they pay their average female employee. In 2017 there was a mean pay gap based on gender of 15.3% and median pay gap of 13.7% across universities in the UK. Jobs at universities include lecturers, catering staff, administration, cleaning and site management.

Since the Equal Pay Act (1970) it has been against the law to pay women less than men for the same work, although this can be hard to prove.

Source: adapted from BBC: <https://www.bbc.co.uk/news/business-47723950>

- (a) Define what is meant by:

(i) a mean pay gap. [1]

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(ii) a median pay gap. [1]

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- (b) Using a labour market diagram, outline reasons why a gender pay gap may have existed at universities. [6]

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5. In 2017, the Scottish Government was given the ability to set different tax rates to the rest of the UK.

In 2018, the UK Government cut taxes for higher earners in England, Wales and Northern Ireland. The Scottish Government chose not to cut taxes for their higher earners. The Scottish Fiscal Commission warned that this would make it harder for businesses to recruit highly skilled employees and would reduce income tax revenues by £6m.

The Scottish Government argues that Scotland has a fairer tax regime than the rest of the UK and people living in Scotland get benefits such as free university tuition and better social care that other parts of the UK do not offer.

Example job	Income	Income tax paid in Scotland	Income tax paid in rest of UK	Impact on Scottish incomes
Nursery assistant	£16 000	£680	£700	+£20
Carpenter or joiner	£27 000	£2900	£2900	0
Electrician	£33 000	£4160	£4100	-£60
IT professional	£45 000	£6994	£6500	-£494
Train driver	£52 000	£9864	£8300	-£1564
Chief executive	£73 000	£18 474	£16 700	-£1774
Senior air traffic controller	£113 000	£37 539	£35 300	-£2239

Source: Fraser of Allander Institute

About 55% of all Scottish tax payers earn less than £27 000.

- (a) Using a Laffer curve diagram, illustrate how keeping the higher rate of income tax in Scotland could result in less tax revenues than if they had cut taxes in line with the rest of the UK. [2]

Draw your diagram in the space below.

6. Primary commodities are used as inputs into production processes.

Sugar is extracted from sugar cane or sugar beet crops. Copper is produced by processing copper ore which is extracted from copper mines.

The estimated price elasticities of supply for the two commodities are shown below:

	Sugar	Copper
Short run price elasticity of supply	0.14	0.45
Long run price elasticity of supply	0.71	1.67

(a) Sugar prices fell by 18% between November 2018 and January 2019. Calculate the percentage change in the short run supply of sugar.

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(b) Explain possible reasons for the differences between the short run and long run price elasticities of supply for sugar and copper.

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