| Surname | Centre Number | Candidate Number |
|---|---|---|
| Other Names | | 2 |

# GCE A LEVEL

1520U30-1

S19-1520U30-1

**MONDAY, 20 MAY 2019 – MORNING**

## ECONOMICS – A2 unit 3
### Exploring Economic Behaviour

2 hours

| | For Examiner's use only | | |
|---|---|---|---|
| | **Question** | **Maximum Mark** | **Mark Awarded** |
| **Section A** | **1** | **4** | |
| | **2** | **6** | |
| | **3** | **6** | |
| | **4** | **11** | |
| | **5** | **7** | |
| | **6** | **6** | |
| **Section B** | **7** | **6** | |
| | **8** | **10** | |
| | **9** | **10** | |
| | **10** | **14** | |
| | **Total** | **80** | |

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**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.

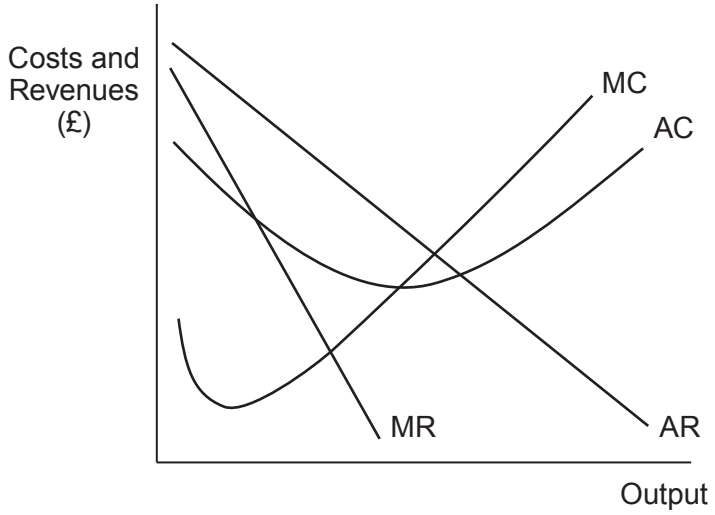
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## SECTION A

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

**1.** The diagram below shows a profit-maximising firm operating in monopolistic competition in the short-run.




Explain, with the aid of a diagram, what will happen to the level of output produced by this firm in the long-run. [4]

*Draw your diagram in the space below.*

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**2.** The table below provides cost and revenue information for "Bowled Over", a firm producing hand-made wooden bowls.

| Output of bowls | Market price per bowl (£) | Total cost (£) |
|---|---|---|
| 0 | - | 50 |
| 1 | 45 | 75 |
| 2 | 40 | 84 |
| 3 | 35 | 92 |
| 4 | 30 | 97 |
| 5 | 25 | 100 |
| 6 | 20 | 103 |
| 7 | 15 | 105 |

*(a)* At what level of output does the firm earn normal profit? Justify your answer. [2]

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*(b)* At what level of output does the firm maximise its revenue? Justify your answer. [2]

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*(c)* State and explain **one** possible social or community objective that "Bowled Over" may choose to pursue. [2]

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**3.** In May 2016, the German Cartel Office imposed a fine of €91.5m on several retailers, including Lidl and Netto, for colluding to fix the prices of beer, sweets and coffee.

The price-fixing in the beer market was co-ordinated by the beer brewing company, AB InBev. The president of the Cartel Office, said: "In the sale of beer brands, the brewery agreed with retailers to raise prices and co-ordinated the details between them, in particular… the level of the respective price increase. The retailers expected that the brewery would ensure that the price increase was simultaneously implemented by competing retailers. The ones suffering from such practices are the end consumers." AB InBev avoided fines because of the company's extensive cooperation with the Cartel Office.

*(a)* Define the term 'interdependence'. [1]

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*(b)* Using the data and your own knowledge, explain **two** conditions under which price collusion is more likely to occur. [5]

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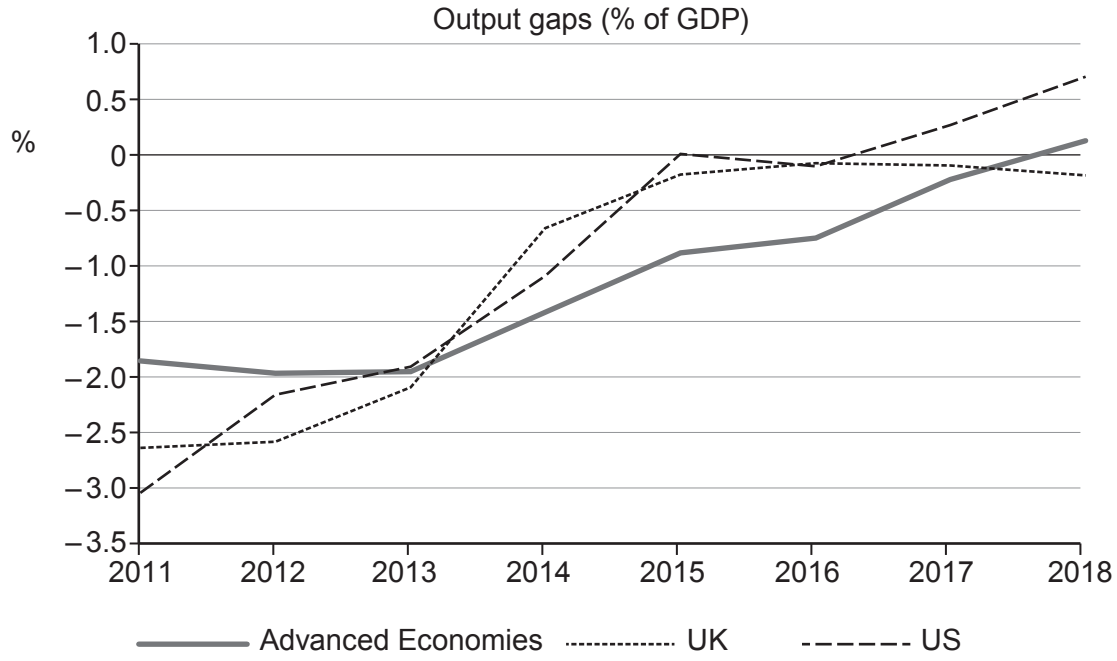
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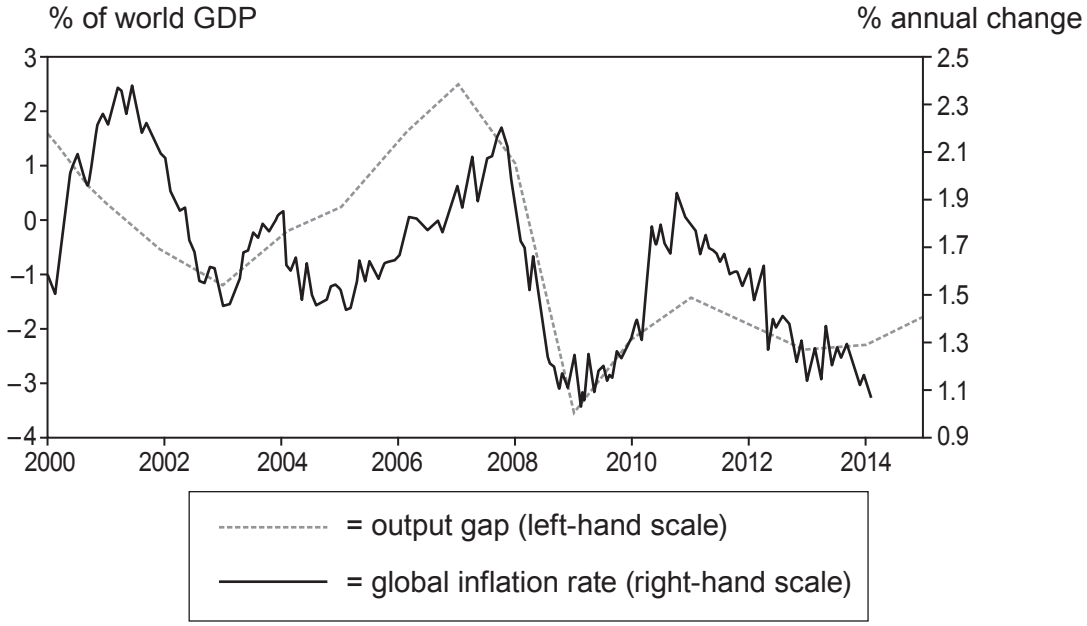
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**4. Chart 1 – output gaps in the UK, US and advanced economies as a whole, 2011-2018**




Central bankers often link an economy's rate of inflation to the size of the output gap in that country. Some economists have recently taken this argument a step further, and believe that the global economy's output gap is now more important than an individual economy's output gap in determining the rate of inflation in a country – this is because of globalisation. In other words, the relatively low inflation experienced by many countries since the mid-1990s is due to global spare capacity. The increasing inter-connectedness between different economies can put some downwards pressure on domestic prices if, for example, imported raw materials and commodities become cheaper. However, there are other factors that can also affect domestic inflation rates.

**Chart 2 – global output gaps and global inflation rates, 2000-2014**




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*(a)* Using Chart 1, compare and contrast the data on output gaps for the UK and the US. [4]

*(b)* With reference to all the information provided, assess the view that a negative output gap in an economy will always result in a fall in the rate of inflation. [7]





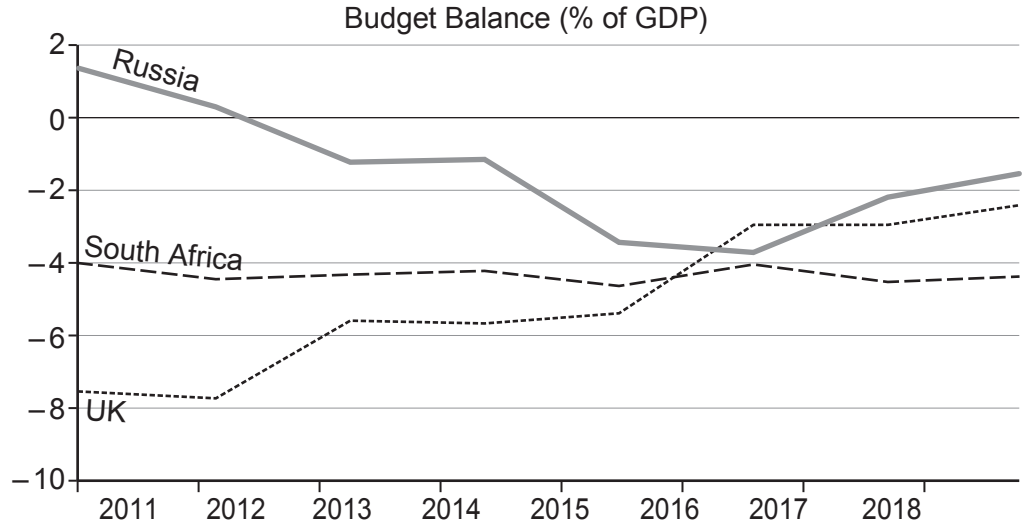
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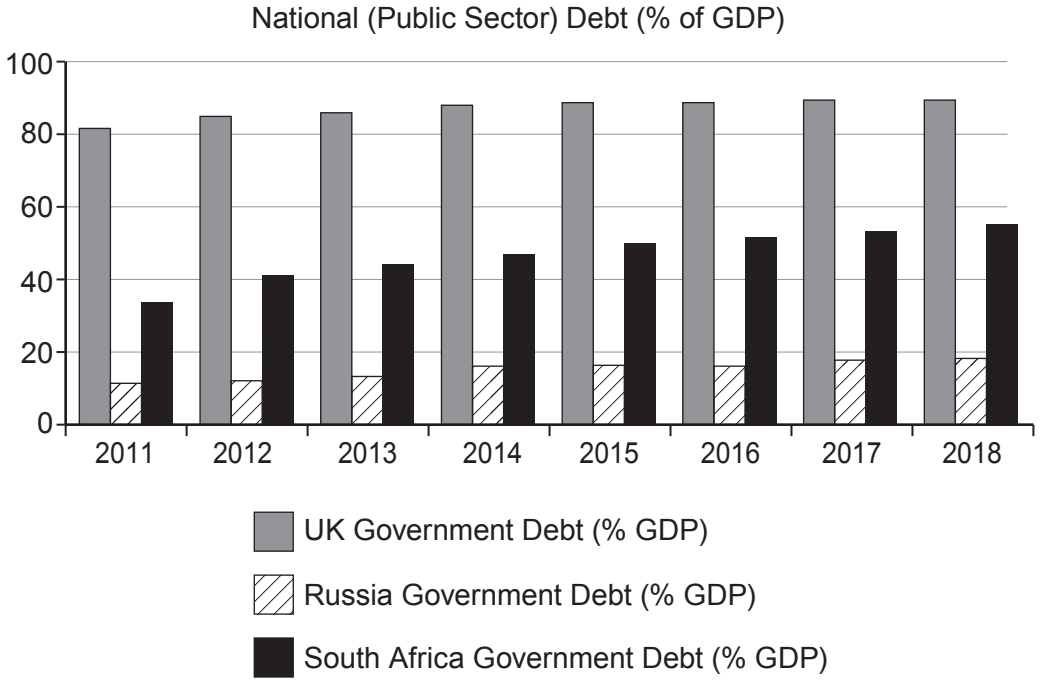


**Turn over.**

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**5.** The charts below provide data from the International Monetary Fund (IMF) on government finances for the UK, Russia and South Africa from 2011 to 2018.




With reference to the data, evaluate the likely relationship between a government's budget balance and its national debt. [7]

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**6.** The table below shows China's annual money supply growth rate and annual inflation rates for selected dates.

| | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** |
|---|---|---|---|---|---|---|
| **Money supply growth rate** | 14.8% | 14.2% | 12.9% | 13.1% | 11.5% | 9.2% |
| **Inflation rate** | 1.9% | 3.1% | 1.6% | 1.6% | 1.9% | 1.6% |

To what extent does the data provide evidence to support the quantity theory of money? [6]



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## SECTION B

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

In the UK in 2016, growth in the "digital economy" outperformed average economic growth. However, it still only accounted for around 5% of the 32.1m jobs in the economy, 9% of firms and 7% of actual growth. These figures are similar to those in the US, although lagging behind countries such as South Korea.

Wales has the fastest growing digital economy outside London, with the number of digital firms (selling anything from software and app development to ICT consultancy) in Wales jumping by 9.2% from 2015 to 2016. The number of digital firms in London rose by 11.6% to 41 940 during the same period. The Welsh Government estimates there are currently more than 600 firms in the IT sector alone, employing an estimated 30 000 people – around 3.5% of the Welsh workforce.

A Welsh Government report suggests that ICT investment can boost an economy's productivity by up to 30%. Improved ICT can reduce the costs of communication between firms, lower the barriers to entry into many markets, and enable new products and services to be produced. Small firms can share departments, such as accounting and marketing, with other small firms by using ICT more effectively; this reduces costs and makes existing factors of production more efficient. The valuable Welsh tourism industry in particular should benefit as ICT can improve bookings and payments systems as well as marketing.

> The owner of a small business, LoveCraft (selling knitting and craft items) reported that in 2015, selling just in the UK, his revenue was £6.5m. After signing up to an international payment services provider for just £75 per month, his 2016 revenue was £10.9m, with growth coming entirely from overseas customers.

Wales has emerged as one of the fastest growing UK regions in recent years, with the digital economy a key driver of growth. The surge in new business creation in the technology sector in Cardiff is fuelling a jobs boom, which is "rippling out" to the wider South Wales region. For example, 30 000 more jobs are expected in the region as a result of the government's proposed "internet coast" plans around Swansea Bay.

However, one concern is whether Wales is able to hold on to new digital firms once they reach a certain scale, or whether these businesses will try to expand into other regions such as London. It is vital that good literacy, numeracy and science education is provided to help Welsh people find employment in this fast-growing sector. The Welsh Government acknowledged these requirements in its Digital Wales programme. The programme's aims include:

- **Skills:** technology will be used to improve teaching and learning in schools; adults will all be given opportunities to learn new digital skills for everyday life; workers will be equipped with specialist skills for digital industries
- **Economy:** Welsh companies will be encouraged to work with digital research departments in universities, and Welsh companies will be supported in accessing new digital markets
- **Infrastructure:** fair and equal access to broadband and mobile phone network coverage.

In addition to supporting small UK businesses, the digital economy is supporting economic development in many LEDCs. In India, for example, farmers struggle with drought, crop diseases, lack of modernisation and low market prices. A new app called Plantix, developed by scientists in Germany, may be about to change their lives. The Plantix app allows users to take photos of their crops and then it identifies the likely problem and suggests a solution. The falling global price of smartphones has meant that many people in India, even poor farmers, can now afford smartphones

giving them access to the internet for the first time. In one Indian village, Karlapalem, 500 farmers now share 20 smartphones. Similar apps are used by African farmers; ImageIT helps farmers to use expensive fertilisers more efficiently so that only the crops needing the fertiliser receive it. These apps are nearly always free for farmers to use because each time they use them, they provide information to global databases monitoring global food security. Improved data is leading to increased efficiency in other areas too. In Kenya, mobile data is being used to identify malaria infection patterns and identify problem areas – this helps improve healthcare provision. Vehicle sensor data from delivery trucks in many countries has enabled companies to save millions of gallons of fuel and reduce emissions by the equivalent of taking thousands of cars off the road for a year.

The increasingly digital global economy is not without its disadvantages. The apps, for example, are most likely to benefit those who are literate; in many LEDCs, the very poorest, especially women, cannot read and this can worsen inequality. Many rural areas may still struggle for affordable internet access. App developers, often large monopolies in developed countries, have gained huge amounts of personal data on their users which they then sell to other companies or use to improve their own products. It is often said that the global digital economy benefits those living in MEDCs more than LEDCs.

**7.** Using the data in paragraphs 1 and 2, calculate:

*(a)* The number of people employed in digital industries in the UK in 2016. [2]

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*(b)* The number of digital firms in London in 2015. [2]

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*(c)* The total size of the Welsh workforce. [2]

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**8.** Using a cost and revenue diagram, evaluate the likely impact of ICT investment on a small firm's costs. (lines 10-14) [10]

*Draw your diagram in the space below.*

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**9.** Evaluate the likely impact of ICT investment on the Welsh labour market. [10]



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**10.** There are several ways of measuring economic development in an economy. One method is the Human Development Index (HDI).

*(a)* With reference to the data, describe **two** possible indicators of development, other than the HDI, that could be used in response to the increasingly digital global economy. [4]

*(b)* With reference to the data, evaluate the view that the increasingly digital global economy will raise living standards in LEDCs. [10]

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**END OF PAPER**

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