| Surname | Centre Number | Candidate Number |
|---|---|---|
| First name(s) | | 2 |

# GCE A LEVEL

S24-1520U30-1

1520U30-1

**WEDNESDAY, 22 MAY 2024 – AFTERNOON**

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

2 hours

| | For Examiner's use only | | |
|---|---|---|---|
| | **Question** | **Maximum Mark** | **Mark Awarded** |
| **Section A** | **1.** | **8** | |
| | **2.** | **7** | |
| | **3.** | **8** | |
| | **4.** | **6** | |
| | **5.** | **11** | |
| **Section B** | **6.** | **10** | |
| | **7.** | **8** | |
| | **8.** | **10** | |
| | **9.** | **12** | |
| | **Total** | **80** | |

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**ADDITIONAL MATERIALS**

In addition to this paper you may require a calculator and a ruler.

**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.

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

Answer **all** questions.

Write your answers in the spaces provided in this booklet. If you run out of space, use the additional 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.

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



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## SECTION A

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

**1.** In 2019, the Californian electric car company Tesla announced that it wanted to scale up its production volumes in order to achieve economies of scale. Tesla would then be able to reduce the sale price of its Model 3 car and increase the number of electric cars on the roads. The largest cost faced by Tesla is production of its special lithium batteries, which account for a huge 42% of the retail price of the car. Tesla has built a large specialist battery factory in the state of Nevada, which it calls its Gigafactory, in order to try and reduce the unit cost of batteries.

The building of the Gigafactory has led the Nevada state government to improve motorways and increase capacity on the railway lines. In turn, this has led to other firms, such as Apple and Walmart, setting up production and distribution facilities in the area.

However, a report suggested that the Tesla Gigafactory has to scrap around half a million battery cells every day because of mistakes in production. This was caused by employee carelessness, poor communication regarding production processes and employee stress as a result of pressure from Tesla's owners to increase output.

(a) Using a diagram and with reference to the data, outline the difference between internal economies of scale and internal diseconomies of scale. [4]

Draw your diagram in the space below.

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(b) Using a diagram, outline how Tesla might benefit from external economies of scale in Nevada. [4]

Draw your diagram in the space below.



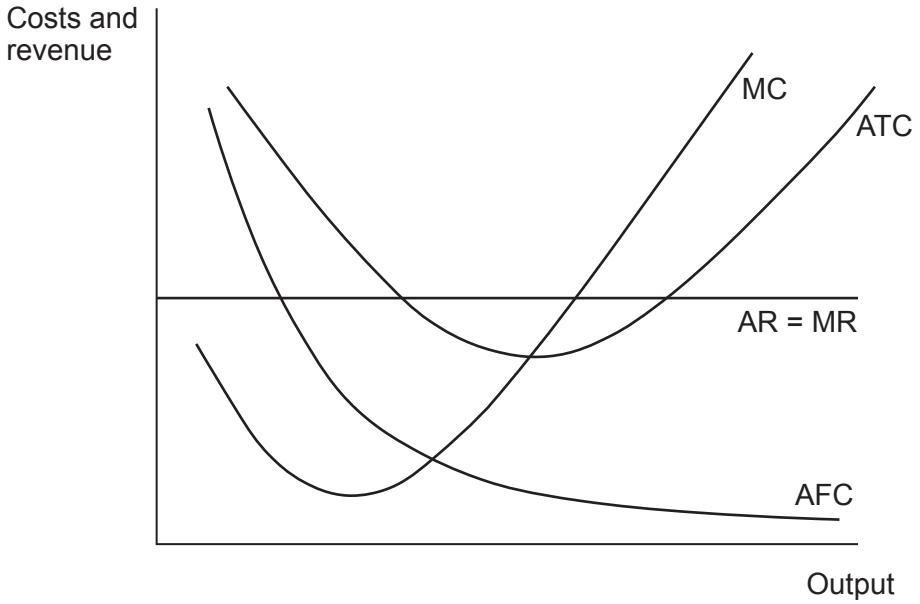
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**2.** The diagram below represents a profit-maximising firm operating in a perfectly competitive market structure.




(a) On the diagram, indicate the level of output produced by this firm. [1]

(b) Shade the area that represents the firm's total variable costs of production. [2]

(c) Explain what will happen to this firm's level of output in the long run. [4]

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**3.** Angola is the 7th largest country in Africa, located on the African continent's west coast. Angola suffered a long-running civil war, which ended in 2002. It is now a relatively stable country, although its citizens have some of the lowest living standards in the world. GDP per person is around $1950 per year and its HDI value is 0.586. Income and wealth distribution is highly unequal. Angola's mineral and oil reserves are extremely large, and it is one of the fastest growing economies in the world.

The Government of Angola recently decided to part-privatise a number of its state-owned enterprises in order to improve efficiency. Some of the enterprises selected for privatisation include:

- Angola Telecom,
- TAAG (the national airline),
- Sonangol (the national oil company).

However, the Angolan Government faces challenges in the privatisation process. Angola's financial markets are undeveloped, and so issuing shares and trading them is problematic. Furthermore, business transparency and accounting standards are weak, which deters foreign investors.

Evaluate the view that Angola's privatisation programme is likely to be successful. [8]





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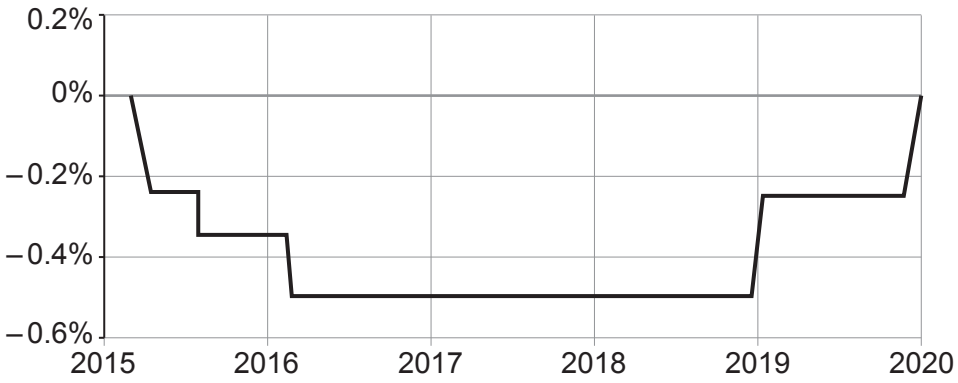


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**4.** In 2015, Sweden's central bank took the unusual step of lowering its base rate of interest below 0% because it was concerned about the risk of deflation.

**Figure 1: Sweden's base rate of interest 2015–2020**




Analyse the likely impact of negative interest rates on aggregate demand in Sweden. [6]

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**5.** Germany is part of the euro area, and so its monetary policy is managed by the European Central Bank (ECB). The ECB has an inflation target of 2%, based on the Consumer Prices Index (CPI).

**Figure 1: CPI inflation rate for Germany 2017–2023**

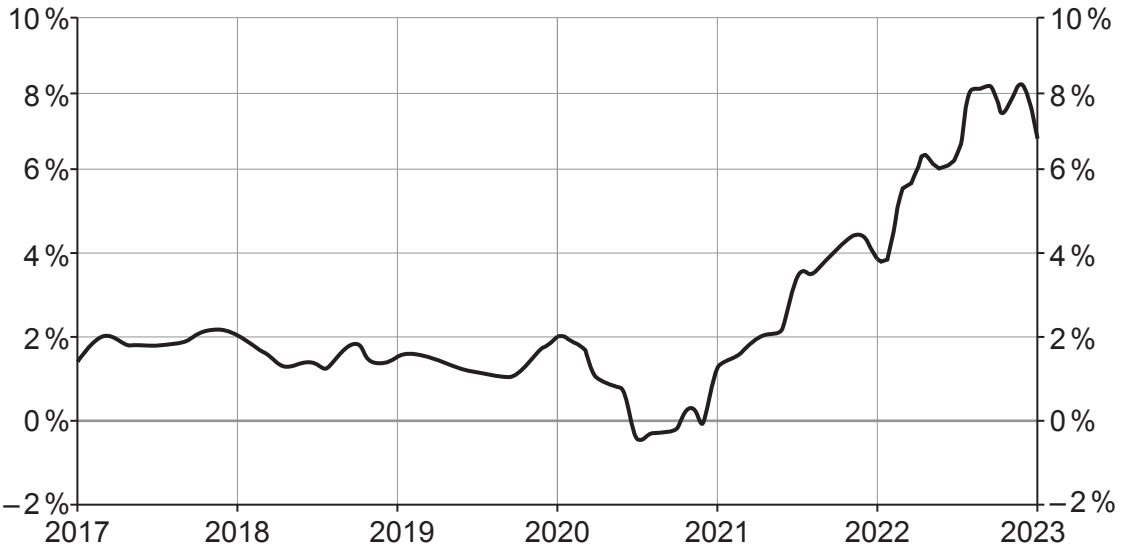



**Figure 2: German annual inflation rate for selected product categories, March 2022 to March 2023**

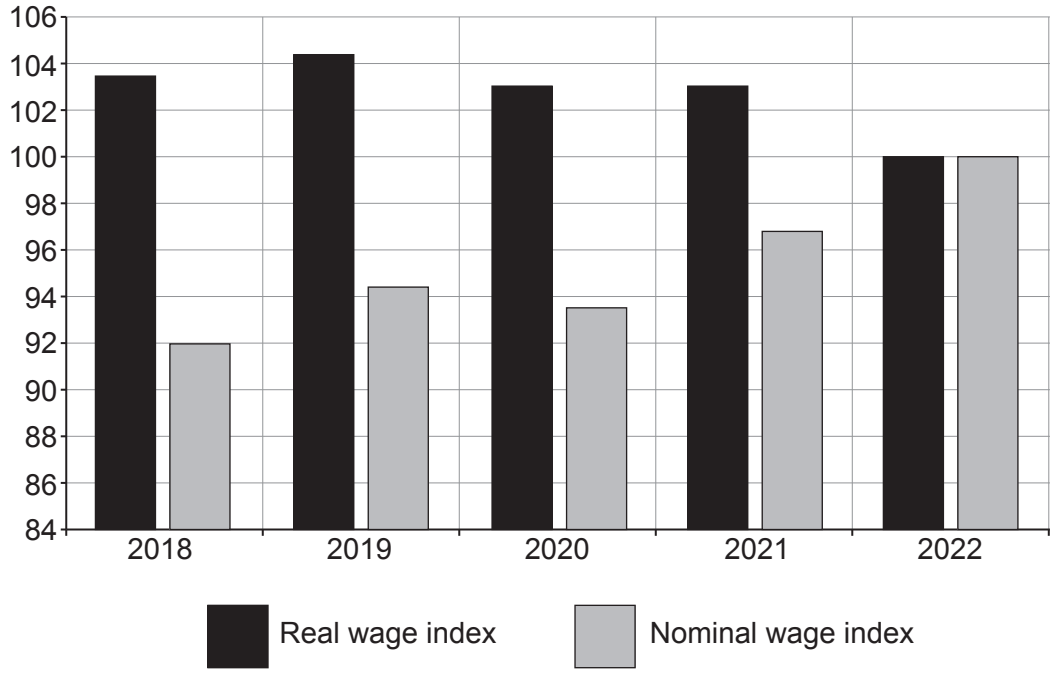
| | Food | Household energy | Consumer goods | Clothing | House rent prices | Motor vehicle fuel |
|---|---|---|---|---|---|---|
| Annual inflation rate | 22.3% | 21.9% | 11.9% | 5.1% | 2.1% | –16.9% |
| Weighting (% of spending) | 24 | 28 | 12 | 8 | 22 | 6 |



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**Figure 3: Index of real and nominal average wages in Germany, 2018–2022 (2022 = 100)**




(a) Using the data in **Figure 2**, calculate a price index for Germany in March 2023, taking March 2022 as the base period.
You are advised to show your working. [3]

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(b) Assess whether Germany is likely to experience a wage-price spiral. [8]

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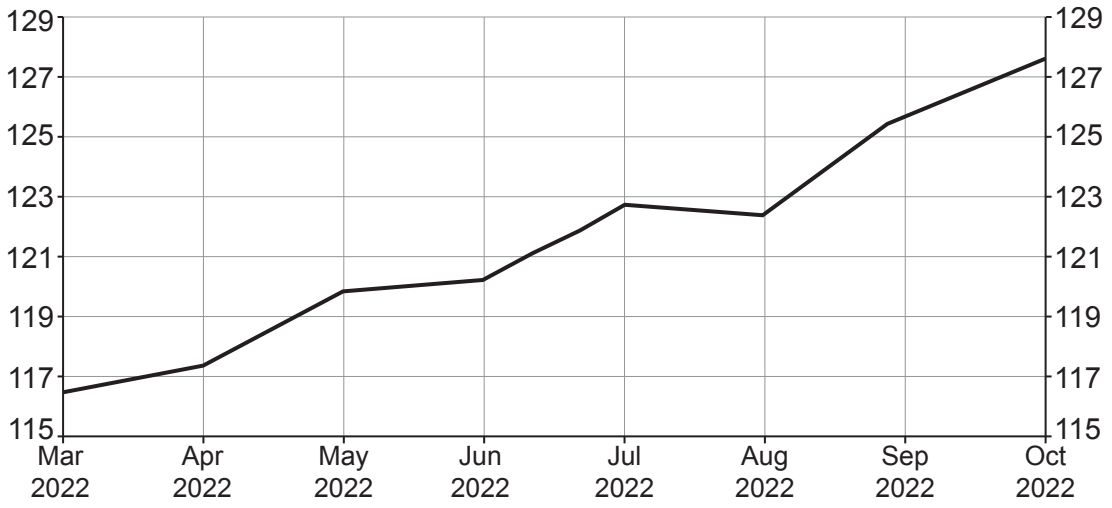
## SECTION B

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

**Rising US dollar spells trouble for Ghana**

The US dollar strengthened significantly during 2022 (**Figure 1**).

**Figure 1: Effective exchange rate index for the US dollar (2007 = 100)**




The dollar appreciating, meant that other currencies around the world depreciated. These depreciations were often greatest in developing economies already struggling with other issues. For example, in Ghana, a west African coastal country, the cedi (Ghana's currency) depreciated sharply against the dollar in 2022 and, although it recovered a little towards the end of the year, it was still 50% weaker than in 2019.

A depreciating currency creates problems for countries such as Ghana, which often have to borrow in dollars. Ghana's national (public sector) debt in 2022 was over 80% of GDP, and 70% of government tax revenue was spent on paying interest on this debt.

Firms in Ghana have suffered because their imported raw materials and components are often priced in dollars. Global instability has increased dollar prices of imported inputs (**Table 1**). With the cedi weakening at the same time, Ghanaian firms' costs have risen sharply. This has forced firms to increase prices, which in turn has resulted in fewer sales and falling profits.


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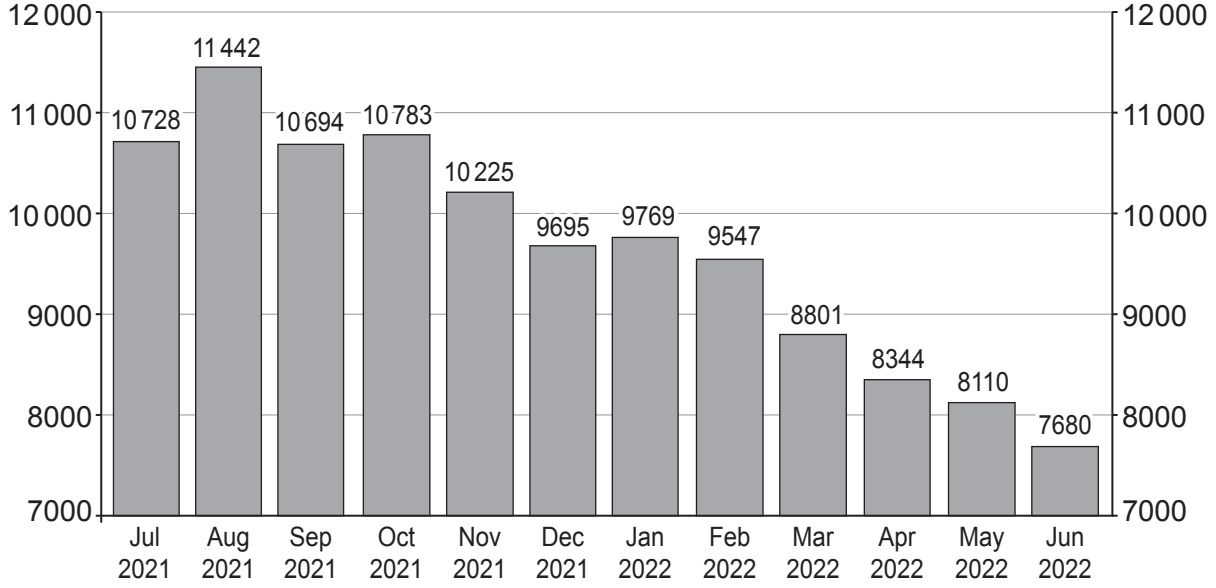
**Table 1:**

| Prices of selected Ghanaian imports 2019–2022 (US$/tonne) | | |
|---|---|---|
| **Commodity** | **2019 price** | **2022 price** |
| Palm oil | $524 | $794 |
| Rice | $396 | $426 |
| Rolled steel | $400 | $799 |
| Wheat | $163 | $346 |

The depreciating cedi has therefore created policy difficulties for Ghana. If the government does nothing then nervous investors may switch their funds to safer destinations. In 2021, Ghana received net capital inflows of over US$4bn. By mid 2022, however, over US$2bn had been sent abroad, with these outflows getting larger each month.

In order to strengthen the cedi, the Ghanaian authorities could increase interest rates (which were 27% at the end of 2022). Further increases in order to control inflation could reduce investment and economic growth, both essential for development and government finances. Alternatively, the central bank could intervene by using foreign currency reserves to support its currency. For Ghana however, the need to use dollars elsewhere has meant that their currency reserves have fallen steadily in recent years (**Figure 2**).

**Figure 2: Ghana's foreign exchange reserves (US$ million)**





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It could be argued that Ghana's weaker currency would be good for its current account. However, in the long term, the impact might not be beneficial because exports from developing economies are often priced in dollars, meaning that prices don't fall for overseas buyers. Nevertheless, Ghana's current account deficit has remained relatively low because of higher global oil, gold and cocoa prices; these goods contribute 75% of total export earnings for Ghana.

As a result of its exchange rate difficulties, Ghana has sought a loan from the International Monetary Fund (IMF) for the 17th time since the 1960s, with agreement reached for a US$3bn bailout package. According to the IMF, the loan "aims to restore macroeconomic stability and debt sustainability while laying the foundation for stronger and more inclusive growth."

IMF loans usually come with numerous conditions attached. Consequently, many Ghanaians fear that this agreement with the IMF will force their government to impose austerity measures (increases in tax and cuts in government spending) that will further damage the living standards of Ghanaian citizens, who are already facing soaring prices and other economic problems (see **Table 2**).

**Table 2**

| **Selected development indicators** | | | |
|---|---|---|---|
| | **Ghana (a lower middle income country)** | **Lower middle income countries – average†** | **Upper middle income countries – average†** |
| Life expectancy at birth (years) | 63.8 | 66.4 | 75.3 |
| Adult literacy (%) | 79.04 | 75.43 | 95.45 |
| Access to electricity (% of population) | 85.9 | 89.8 | 99.4 |
| Enrolment in university level education (% of population) | 16.2 | 23.1 | 46.9 |
| Access to clean water (% of population) | 71.9 | 84.3 | 90.9 |
| Internet access (% of population) | 58 | 44.9 | 73.4 |

† Lower middle income countries are those with GNI/capita between $1000 and $4000. Upper middle income countries are those with GNI/capita between $4000 and $12 500 (approx.).


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Some have argued that Ghana needs a national industrialisation plan to develop its manufacturing sector with links to agriculture, particularly cocoa. Developing import-substitution and export-driven industries based on its comparative advantages could improve the country's trade balance and government revenue.

Ghana's government has argued that the challenging external environment has left it no choice other than to look for help from the IMF, but critics have argued that the current president once promised a "Ghana without aid." Critics also argue that many of Ghana's problems are self-inflicted; Ghanaian governments have a history of running large fiscal/budget deficits, particularly in election years. According to some commentators, this deficit is made worse by public sector financial irregularities and widespread tax breaks for large corporations. Likewise, although inflation has been driven up by external events, this increase was from an already high base, with inflation rarely having fallen below 10% in the last decade. Again, some hold the government to blame. Regardless of where the blame lies, Ghana faces major challenges in the coming years.


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**6.** (a) (i) Using the data in **Table 1**; calculate the percentage change in the **dollar** price of palm oil between 2019 and 2022.
You are advised to show your working. [2]

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(ii) 'The cedi depreciated sharply against the dollar in 2022 and, although it recovered a little towards the end of the year, it was still 50% weaker than in 2019', (lines 3-5).
Using this information and your answer to (a)(i), calculate the percentage change in the **cedi** price of palm oil between 2019 and 2022.
You are advised to show your working. [2]

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(b) With reference to the data and using a cost and revenue diagram, show how the weak cedi has resulted in higher prices, fewer sales and falling profits for firms in Ghana that import commodities. [6]

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**7.** Evaluate the extent to which Ghana's economic difficulties in 2022 were the result of external rather than internal factors. [8]

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**8.** Discuss whether the Ghanaian authorities should have intervened or not in the ways suggested in lines 17–22 to strengthen the cedi. [10]

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**9.** With reference to the case study, discuss whether living standards in Ghana are likely to be improved by Ghana's decision to go to the IMF for financial support. [12]



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**END OF PAPER**



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