



GCE AS/A LEVEL

2520U20-1



S25-2520U20-1

MONDAY, 19 MAY 2025 – MORNING

ECONOMICS – AS unit 2

Economics in Action

2 hours

2520U201
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ADDITIONAL MATERIALS

In addition to this examination paper, you will need:

- a calculator;
- a WJEC pink 16-page answer booklet.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

You may use a pencil for graphs and diagrams only.

Answer **all** questions.

Write your answers in the separate answer booklet provided.

INFORMATION FOR CANDIDATES

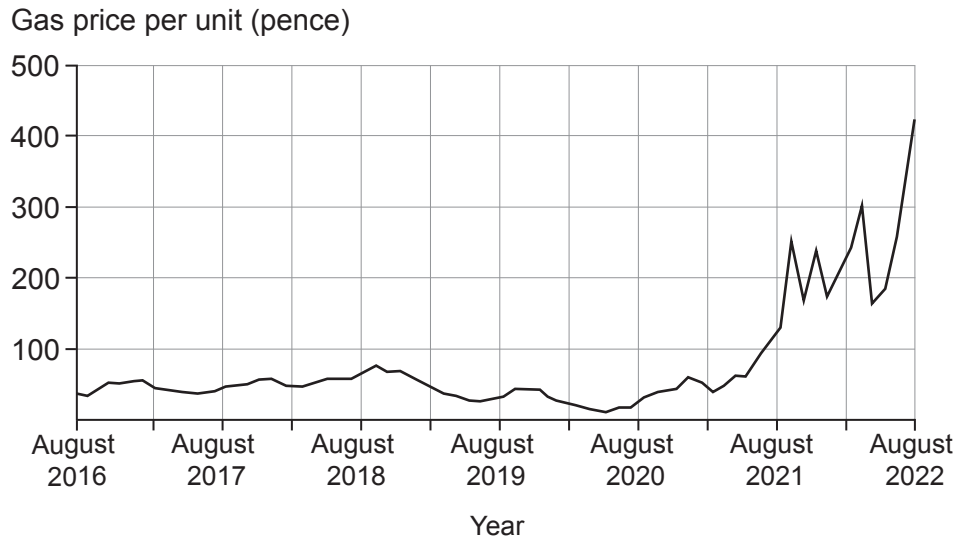
The number of marks is given in brackets at the end of each question or part-question.

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

Answer **all** questions.

1. Heating Up

Figure 1: UK natural gas price, August 2016 – August 2022



Source: tradingeconomics.com

85% of UK households use a traditional gas boiler to heat their houses. In August 2022, the price of gas increased to record levels in the UK.

- 5 As a result, many households bought **wood-burning stoves** as a cost-effective alternative to gas boilers. Sales of stoves doubled in the 6 years to August 2022.

A wood-burning stove is a heating appliance capable of burning wood as fuel. The typical price is £800 – £1000 (plus another £1000 for installation).

- 10 Research suggests that a wood-burning stove could potentially cut heating bills by around 10%.



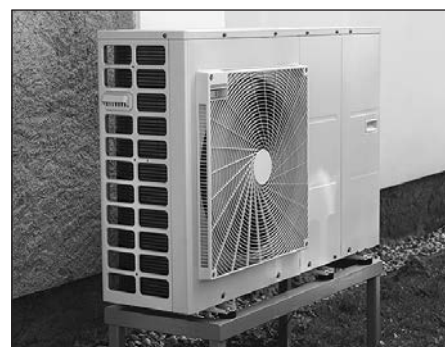
The spike in popularity, however, is not without its economic challenges.

Recent data reveals that wood-burning stoves can be linked to severe health risks and carbon dioxide emissions. Heating a typical home with a gas boiler results in 3300 kg of carbon dioxide annually, but wood-burning stoves produce a lot more. For example, some older models can result in more than 10 000 kg of carbon dioxide emissions over the same time period. The government has come under pressure recently to apply indirect taxes to wood-burning stoves in order to reduce emissions.

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20 A newer, alternative source of heating is an **air source heat pump**. This is an appliance that extracts heat from the outside air to provide heating for buildings or to generate hot water. Manufacturers claim that it offers a more energy-efficient and environmentally friendly alternative to a gas boiler.

25 Heat pumps are seen as important to meeting the UK's 2035 climate targets by reducing carbon emissions from heating buildings. The government's stated ambition is for 600 000 heat pumps to be installed every year for 5 years (2023 to 2028). Heat pumps can be very expensive
30 though. Prices vary but the average price is around £12 500 and, as a result, heat pumps are still unaffordable for many households.



In October 2023, the government introduced a £7500 subsidy per heat pump in order to incentivise more households to buy them. The government expects the scheme to cost £450 m over the next five years.

- (a) Using **Figure 1**, calculate the approximate percentage change in the price of natural gas from August 2016 to August 2022. [2]
- (b) (i) Using an example from the data, outline the concept of opportunity cost. [2]
 - (ii) Using an example from the data, outline the concept of complementary goods. [2]
- (c) Using the data, discuss whether wood-burning stoves and gas boilers can be considered strong substitutes. [10]
- (d) Draw a negative externalities diagram to illustrate the market failure associated with wood-burning stoves. **No explanation is necessary.** [4]
- (e) Using a diagram, discuss the advantages of using indirect taxes to reduce the sales of wood-burning stoves. [10]
- (f) Using a subsidy diagram, evaluate the extent to which government subsidies may lead to government failure. [10]

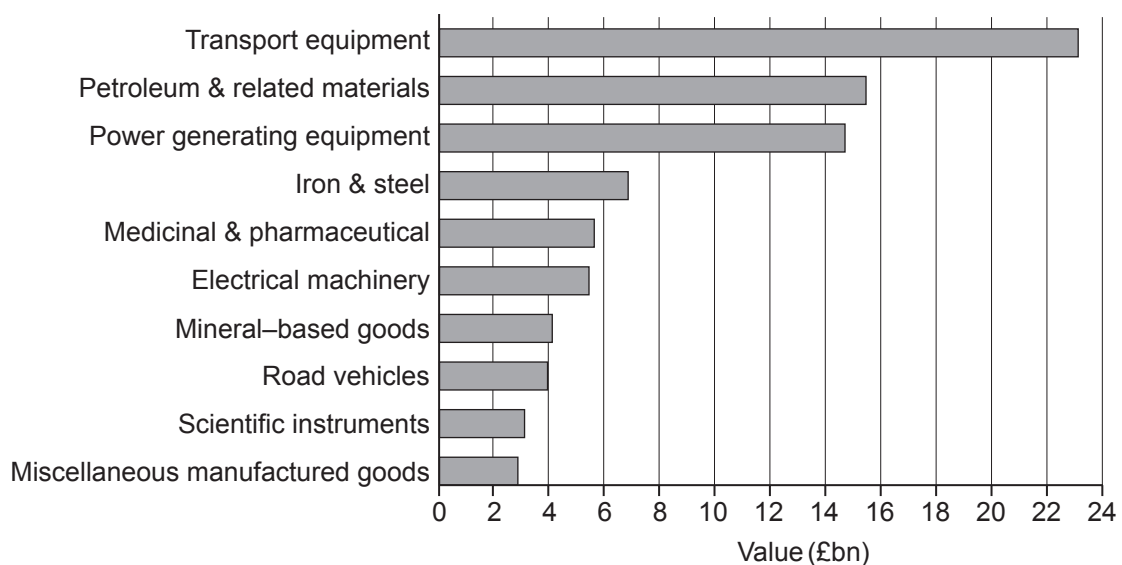
2. All about trade

Extract A

According to official data, Wales engaged in export trade totalling £115.5bn in the 7 years to December 2022. This implies that Wales had an average yearly export total of £16.5bn.

- Wales' top three export destinations are the USA, the Republic of Ireland and Germany. But it exports to more than 100 countries worldwide. For example, in 2022, Wales exported £128m worth of goods to Brazil, £56m to South Africa and £53m to Malaysia.

Figure 2: Wales' exports: top 10 products by value (£bn)



Based on total export values from 2016–2022

As **Figure 2** shows, two important sectors driving Wales' exports are the transport equipment industry and petroleum products.

- Transport equipment includes the building (and selling) of ships, boats, trains and aircraft. Wales hosts a major aviation manufacturing site in Flintshire where nearly 5000 people produce wings for Airbus planes.
- Petroleum products is often a surprise given Wales' limited association with oil. The Valero refinery in Pembrokeshire processes 270 000 barrels of crude oil daily, producing petrol and related products, a substantial portion of which is exported globally.

The agricultural industry, by contrast, doesn't make the top ten list for exports. Welsh lamb exports have an estimated annual value of less than £0.1 bn.

Extract B**Welsh agriculture, key statistics:**

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- 90% of Wales' total land area is used for agriculture.
 - Agriculture contributes £0.7 bn (or 1%) to Wales' total Gross Value Added (GVA).
 - Agriculture accounts for 1.8% of total employment in Wales.
 - In large rural parts of Wales, such as Ceredigion and Powys, jobs in agriculture account for more than 12% of workplace jobs.
- 25 Between 2016 and 2023, the Pound lost more than 10% of its value against the Euro. Nevertheless, the UK continues to import many more goods than it exports. To try and combat this trade deficit, the UK announced a free trade agreement (FTA) with Australia in December 2021. The FTA removed all import tariffs on imports of Australian lamb into the UK.
- 30 Welsh farmers criticised the trade deal, claiming that it would lead to a rise in imports and a fall in the domestic price of lamb. By the end of 2023, however, these worries had not yet been realised. At the time of writing, imports of Australian lamb had not increased beyond long-term trends and prices were well above the 5-year average.
- (a) Calculate the value of Welsh exports to Brazil, South Africa and Malaysia in 2022, as a percentage of Wales' average yearly export total. [2]
- (b) With reference to the functions of prices, explain how the free market allocates resources to different sectors such as agriculture or petroleum. [4]
- (c) With reference to **Extract B**, outline two supply-side policies that might increase the potential output of the agricultural industry in Wales. [6]
- (d) Consider whether increasing net exports (value of exports minus value of imports) is always desirable for an economy. [8]
- (e) Discuss the likely impact of a depreciation of the Pound against the Euro on the value of Welsh exports. [10]
- (f) Using a tariff diagram, discuss the extent to which removing an import tariff on lamb may negatively affect the Welsh economy. [10]

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