



GCE AS/A LEVEL

2520U20-1



Z22-2520U20-1

THURSDAY, 26 MAY 2022 – MORNING

ECONOMICS – AS unit 2

Economics in Action

2 hours

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. Do not use gel pen or correction fluid.

You may use a pencil for graphs and diagrams only.

Answer **all** questions.

INFORMATION FOR CANDIDATES

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

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

Answer **all** the questions.

1. SALMON FARMING IN SCOTLAND

1 It is predicted that, by 2050, the world's population will reach 9.7 billion and the demand for protein will double, leading to food scarcity. Fish, particularly farmed salmon, can offer one solution to meeting this increased demand.





5 Farmed salmon is bred in controlled conditions for the food industry. Wild salmon is caught in its natural habitat.

In addition to the growing world population, the demand for salmon is increasing as people are actively encouraged to consume more fish as part of a healthy and balanced diet. Farmed salmon is a good source of high-quality protein, vitamins and minerals.

10 Consumers typically increase their spending on animal proteins such as salmon as their income increases. An improving global economy has therefore further increased demand. This has pushed prices upwards, despite total supply continuing to rise.

15 The Global Salmon Initiative argues that farmed salmon is also a highly efficient source of protein production and a positive contributor to local communities. Salmon farming is one of Scotland's most profitable industries: it currently provides over 12 000 jobs across the country and farmed Scottish salmon is the UK's biggest single food export.

Environmental impact of animal protein production

	salmon	chicken	pork	beef
				
Water Consumption (litre/kg edible meat)	2 000	4 300	6 000	15 400
Carbon Footprint (grams CO ₂ -equivalent/typical serving of 40g edible protein)	0.6	0.9	1.3	5.9

Improved productivity within the salmon farming industry should mean that the supply of farmed salmon is price responsive. However, in the short run, supply is limited by the 3-year production process, regulations, and capacity constraints.

20 In recent years, environmentalists across the world have been campaigning for the closure of fish farms, including those in Scotland, whose presence has been blamed for the decrease in wild salmon stocks.

A Scottish marine activist said: "Diseases are common in salmon farms and no research has been done to determine the effects on wild populations. Another major problem associated with salmon farming is sea lice, which spread disease and can be passed on to wild animals.

25 "Farmed salmon eat fish caught in the wild. Some sources say that it takes as much as 5 kg of wild fish to produce 1 kg of farmed salmon, meaning that thousands of tonnes of wild fish are being wasted."

30 In 2018, the Scottish Environment Protection Agency said almost one in five salmon farms in Scotland failed to meet statutory environmental standards, and a report by the Scottish Government's environment committee said that water-based (marine) ecosystems faced irrecoverable damage if concerns were not addressed.

- (a) Using an example from the data, describe what is meant by the term 'scarcity' (line 2). [2]
- (b) Outline whether salmon is a normal or an inferior good. [2]
- (c) With reference to lines 6–11, explain why salmon prices have risen. Use a supply and demand diagram in your answer. [6]
- (d) Consider whether the supply of farmed salmon is price inelastic or price elastic. [6]
- (e) To what extent does salmon farming in Scotland lead to market failure? [12]
- (f) Discuss the likely impacts on the Scottish economy of the closure of all salmon farms. [12]

2. INTERESTING INTEREST RATES

- 1 On 1 August 2018, the UK's Monetary Policy Committee (MPC) voted unanimously to raise its interest rate by 0.25 percentage points to 0.75%, the highest level for more than nine years. It led the Daily Mirror newspaper to run the headline "Bank of England raises interest rates by 50%" which was technically true but a little misleading.
- 5 Savings specialist Calum Bennie said: "While it's potentially good news for savers, it could be disastrous for borrowers – adding hundreds of pounds to their bills ... households must be even more sensible to absorb the additional cost."

Savers: Someone with a £5 000 savings balance benefiting from a 0.25 percentage point rate increase will see their interest income rise by £1.04 per month.

- 10 **Borrowers:** 3 million UK borrowers have a 'tracker mortgage'. The new interest rate will add significantly to households' monthly mortgage repayments as shown in **Table 1**.

Tracker Mortgage: the monthly repayment of the mortgage moves up and down depending on the Bank of England's bank rate.

Table 1

Total mortgage	Extra monthly repayment (assuming 20 years left to run)
£130 000	£16
£200 000	£26
£250 000	£34

Figure 1: Bank of England's bank rate from 2008 to August 2018

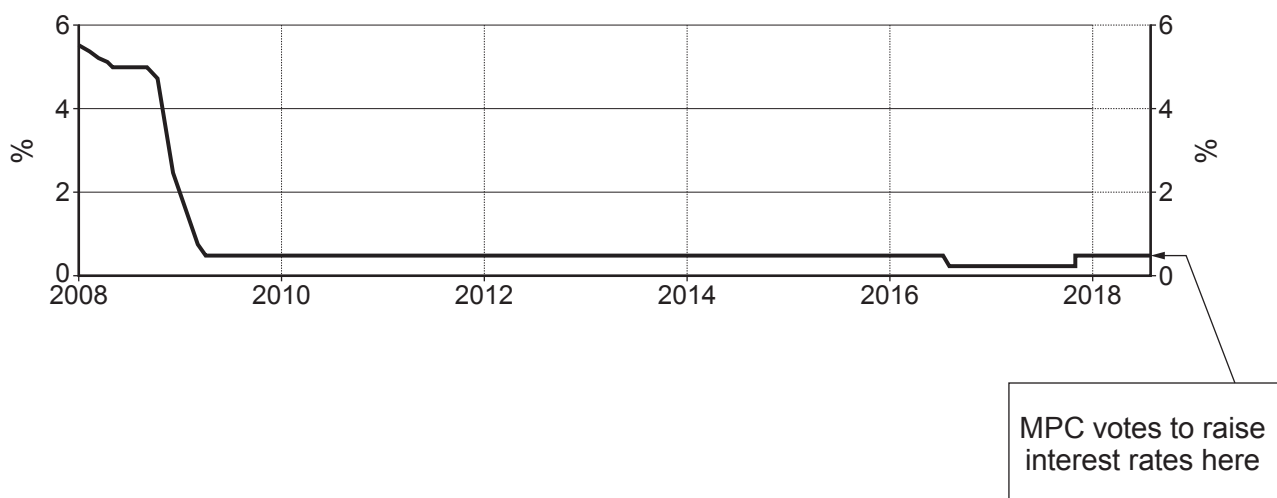
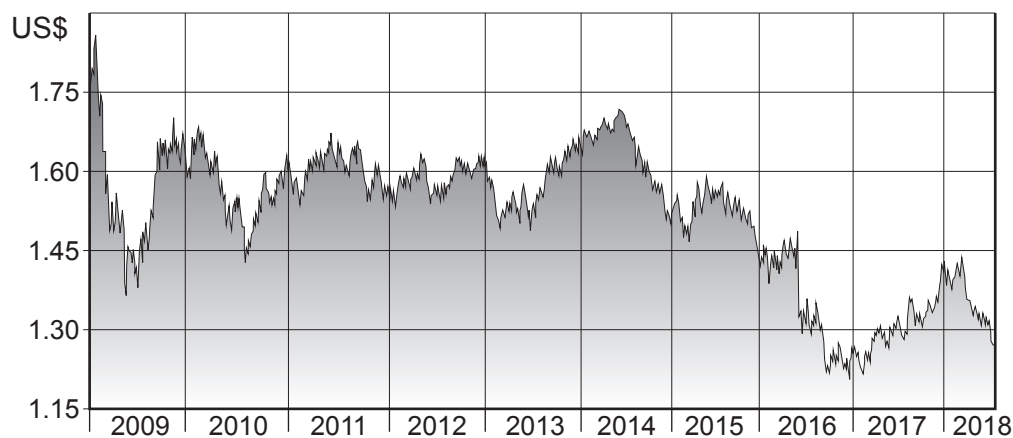


Table 2

UK Economic indicators (Aug 18)	
Unemployment rate	4.1%
Inflation rate	2.5%
Quarterly GDP growth rate (Q2 2018)	0.1%

Figure 2: UK Pound (£) v US Dollar (\$) from 2008 to August 2018

- (a) (i) Using the data, explain how “raising interest rates by 50%” and “increasing interest rates by 0.25 percentage points” are the same thing. [2]
- (ii) “Someone with a £5000 savings balance benefiting from a 0.25 percentage point rate increase will see their interest income rise by £1.04 per month.” Show how this was calculated. [2]
- (b) (i) Other than inflation, state **two** factors that the Monetary Policy Committee is likely to take into account when setting the bank rate. [2]
- (ii) In addition to setting the bank rate, the Bank of England has many other roles. State **two** other roles of the Bank of England. [2]
- (c) To what extent will increasing the bank rate affect the levels of consumption **and** investment in the UK? [10]
- (d) With reference to the data and with the use of an exchange rate diagram, discuss whether interest rates are the main factor affecting exchange rates. [10]
- (e) Using an AD/AS diagram, evaluate whether the use of demand-side policies always leads to a conflict of policy objectives. [12]

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