General Certificate of Education
June 2006
Advanced Subsidiary Examination

ASSESSMENT and QUALIFICATIONS ALLIANCE

ECONOMICS **ECN1/2**
Unit 1 Part 2 Data Response: Markets and Market Failure

Friday 9 June 2006 1.30 pm to 2.30 pm

For this paper you must have:
- an 8-page answer book
- the question paper for Part 1 (ECN1/1)

You may use a calculator.

Time allowed: the total time for papers ECN1/1 and ECN1/2 together is 1 hour

Instructions
- Use blue or black ink or ball-point pen. Pencil should only be used for drawing.
- Write the information required on the front of your answer book. The *Examining Body* for this paper is AQA. The *Paper Reference* is ECN1/2.
- Answer **EITHER** Question 1 **OR** Question 2.

Information
- The maximum mark for this paper is 25.
- The marks for questions are shown in brackets.
- You are reminded of the need for good English and clear presentation in your answers. All questions should be answered in continuous prose. Quality of Written Communication will be assessed in all answers.

Advice
- You are advised to spend at least 45 minutes on paper ECN1/2.

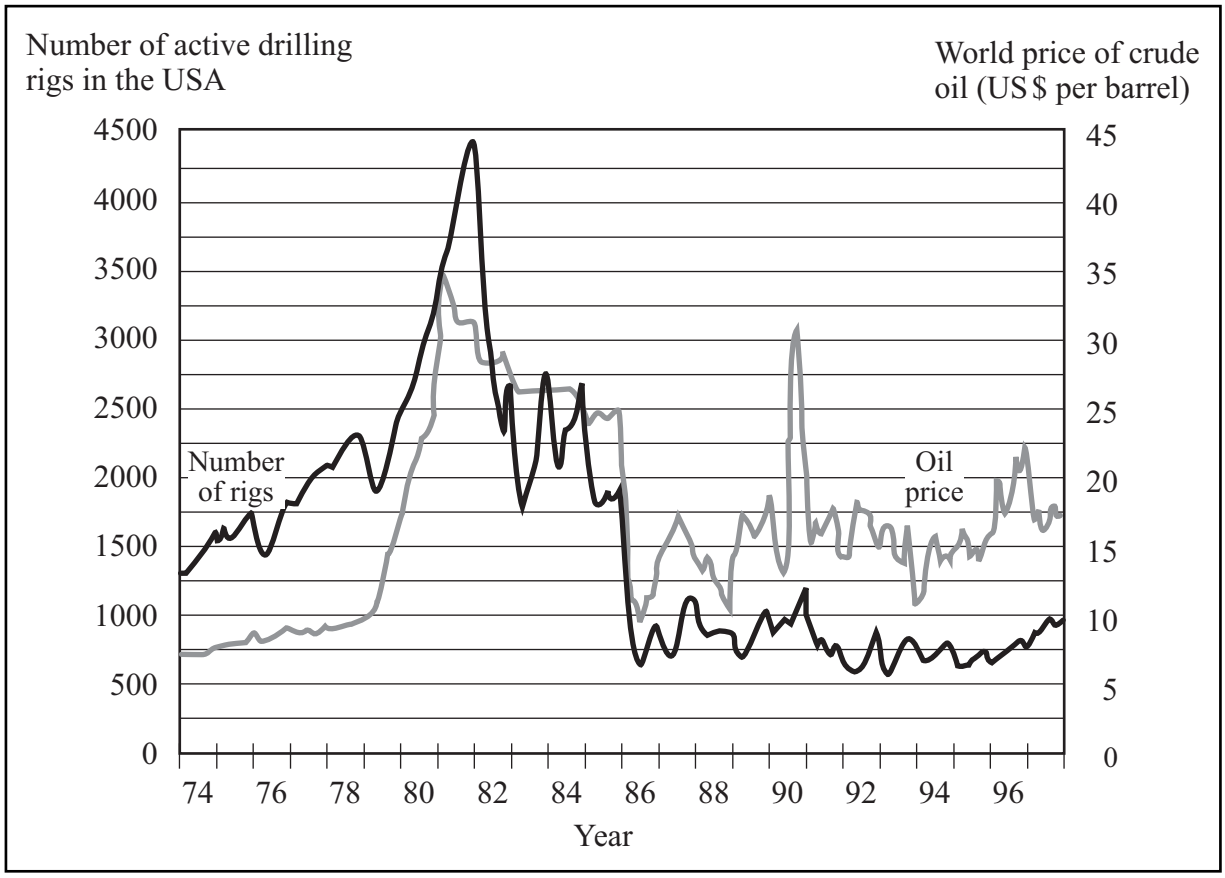
Answer **EITHER** Question 1 **OR** Question 2.

EITHER

Total for this question: 25 marks

1 Study **Extracts A and B**, and then answer **all** parts of Question 1 which follows.

Extract A: The monthly average number of rigs drilling for oil and natural gas in the USA, and the world price of crude oil, 1974–1997



Source: adapted from *WTRG Economics*, 1998, accessed from *www.wtrg.com* on 17 March 2005

Extract B: The price of oil, 1998–2005

In 1998, the price of crude oil fell dramatically, reaching a low of $10 a barrel in 1999. The low price caused OPEC (Organisation of the Petroleum Exporting Countries) to intervene in the market in order to stabilise the price of oil at a higher price. To achieve this, OPEC members agreed to reduce production. Their target price range was between $20 and $30 a barrel. However, because of changing demand and supply conditions, and because of OPEC's reduced market share, OPEC's intervention became less successful in the first decade of the 21st century.

The factors which changed the conditions of demand included speculation, and the effect of China's rapid industrialisation and economic growth. On the supply side, virtually all OPEC members except Saudi Arabia were already producing close to full capacity. In the past, Saudi Arabia had successfully stabilised oil prices by maintaining a large buffer of spare production capacity. This meant the Saudis could quickly increase supply to cool the price of oil whenever there was a sudden surge in demand. However, years of under-investment in new drilling rigs and oil refining capacity have almost wiped out this buffer. Now, in 2005, it is much more difficult to increase supply to meet a sudden increase in demand. Although Saudi Arabia might once again wish to stabilise the price of oil, for example between $55 and $65 a barrel, the changed conditions of demand and supply may make this impossible.

Question 1

(a) Using **Extract A**, compare the price of crude oil and the number of active drilling rigs in the USA over the period from 1974 to 1997. *(4 marks)*

(b) Using at least one demand and supply diagram and the information in **Extract B**, explain how Saudi Arabia might try to stabilise the world price of oil between $55 and $65 a barrel. *(6 marks)*

(c) Do you agree that the price of oil should be determined by free market forces rather than through the intervention of governments or organisations such as OPEC? Justify your answer.

(15 marks)

Turn over for the next question

OR

Total for this question: 25 marks

2 Study **Extracts C, D and E**, and then answer **all** parts of Question 2 which follows.

Extract C: Smoke pollution and deaths per day in London, 1st–15th December 1952

Extract C was a graph adapted from a website.
It has not been reproduced here due to third-party copyright constraints.

Extract D: The London smog of 1952

Smog is a mixture of smoke and other pollutants, and of fog. Smog occurs when climatic conditions trap air above cities and industrial areas, which prevents the dirty air from dispersing. It was the Clean Air Act of 1956 which cleared most of the smoke out of our city air. Nevertheless, while soot and sulphur dioxide have decreased, other less visible, but still toxic, chemicals have increased and continue to do so. It is not surprising that the Clean Air Act was passed, because the London smog of 1952, which led to the introduction of clean air regulations, was the single most deadly weather-related catastrophe in Britain for some 250 years.

Source: adapted from an article by PHILIP EDEN in *The Guardian*, 22 November 1989

Extract E: Public goods in the 21st century

Most economists define public goods in terms of 'non-excludability' and 'non-rivalrous' consumption. Clean air is an example of non-excludability: if some people incur costs to avoid pollution, those who do not pay cannot be excluded from the benefits. They will be tempted to free-ride at others' expense, and producers of clean air would have trouble collecting payment for their services.

Clean air, by and large, also serves as an example of non-rivalrous consumption: by breathing you do not perceptibly reduce the supply of air for others. Together, non-excludability and non-rivalrous consumption mean that there cannot be an efficient private market for clean air. The social benefits of maintaining the supply of clean air will exceed the private benefits of doing so. Unless governments intervene, and in this case replace the market, there will be too much pollution.

But the crucial question for policy-makers in the 21st century is this: how common are genuine public goods? For years it was assumed they were common enough. The favourite illustration of a public good was a lighthouse. Others include roads and TV broadcasts. However, the introduction of congestion charges and satellite broadcasting has thrown doubt on this assumption. Many economists now reject the view that governments must provide public goods.

Question 2

(a) Using **Extract C**, compare changes in the level of smoke pollution with the number of deaths per day in London in the period 1st–15th December 1952. *(4 marks)*

(b) 'Unless governments intervene, and in this case replace the market, there will be too much pollution' (**Extract E**, lines 10–11).

Explain **two** ways in which a government can intervene to bring about cleaner air. *(6 marks)*

(c) Using the data and your economic knowledge, evaluate the case for a government rather than markets providing public goods. *(15 marks)*

END OF QUESTIONS

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