



General Certificate of Education

Economics 5141

ECN1: Markets and Market Failure

Mark Scheme

2009 examination - January series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

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January 2009**ECN1/1**

This component is an objective test for which the following list indicates the correct answers used in marking the candidates' responses.

KEY LIST

1.	D	9.	D
2.	B	10.	A
3.	D	11.	C
4.	B	12.	C
5.	B	13.	A
6.	A	14.	B
7.	A	15.	C
8.	C		

Advanced Subsidiary Economics

January 2009

ECN1/2

Mark Scheme

General Instructions

Marks awarded to candidates should be in accordance with the following mark scheme and examiners should be prepared to use the full range of marks available. The mark scheme for most questions is flexible, permitting the candidate to score full marks in a variety of ways. Where the candidate's response to a question is such that the mark scheme permits full marks to be awarded, full marks **MUST** be given. A perfect answer is not necessarily required for full marks. But conversely, if the candidate's answer does not deserve credit, then no marks should be given.

Occasionally, a candidate may respond to a question in a reasonable way, but the answer may not have been anticipated when the mark scheme was devised. In this situation, **OR WHENEVER YOU HAVE ANY DOUBT ABOUT THE INTERPRETATION OF THE MARK SCHEME**, you must in the first instance telephone your team leader to discuss how to proceed.

Two approaches have been used in the construction of the mark scheme for the data response questions:

- (i) **An 'issue' based approach.** The mark scheme for parts (a) and (b) of the data response questions adopts this approach. The mark scheme lists the marks that can be awarded for particular issues (and associated development) that the candidate might include in the answer. Marks awarded for development should take into account the Quality of Written Communication used by candidates as indicated on page 6 of this mark scheme.
- (ii) **A 'levels' approach.** This approach is used for marking part (c) of the questions. The mark scheme summarises the information required to answer the question, but without attaching marks to particular issues. Marks should be awarded according to whether the answer displays the skills indicated by the five Mark Band Descriptors or "Levels of Skill" included in the mark scheme. The Mark Band Descriptors are set out on page 5. When using a 'levels' mark scheme the marker **must** identify where a particular skill is being demonstrated. The **key** to be used to identify the skill is also shown on page 6. The level chosen should be the one which **best fits** the answer provided by the candidate. It is **not** intended that the answer should satisfy every statement in the level description.

APPLYING THE 'LEVELS' MARK SCHEME

Levels of Response Mark Band Descriptors

In part (c) of the data response questions approximately half the marks are available to award to candidates who demonstrate that they can 'evaluate economic arguments and evidence, and make informed judgements'. It is not necessary that the candidate identifies a wide range of issues. As indicated below, the Quality of Written Communication used should be taken into account when awarding the marks.

Level 1

Few, if any, relevant issues are recognised. Economic concepts and principles are not adequately understood or applied to the question. No satisfactory analysis or evaluation. A poorly organised response which generally fails to answer the question. Descriptions and explanations lack clarity. Spelling, punctuation and grammar may be poor. There is little use of economic terminology.

0 to 3 marks

Mid-Point 2 marks

Level 2

One or more relevant issues are recognised. An attempt is made to use basic economic concepts to answer the question but the candidate's explanation may become confused. There may be some attempt to present alternative points of view but any attempt at evaluation is superficial. The answer is likely to be poorly organised and is unlikely to have a clear structure. The candidate demonstrates some ability to spell commonly used words and to follow the standard conventions of punctuation and grammar. Some use of economic terminology is made but this is not always applied appropriately.

4 to 6 marks

Mid-Point 5 marks

Level 3

Two or more relevant issues are recognised. The candidate has made a reasonable attempt to apply economic concepts and ideas. A satisfactory understanding of some basic economic concepts and theories is demonstrated. There will be some attempt to present alternative views and to evaluate the issues, arguments and/or data. There is some logic and coherence in the organisation of the answer. The candidate is generally able to spell commonly used words and usually follows the standard conventions of punctuation and grammar. Some descriptions and explanations are easy to understand but the answer may not be expressed clearly throughout. There is some evidence of the correct use of relevant economic terminology.

7 to 10 marks

Mid-Point 9 marks

Level 4

Two or more relevant issues are identified. Good understanding of some basic economic concepts and models is demonstrated. The candidate is able to apply these concepts and models to help answer the question. An appreciation of alternative points of view is shown. Satisfactory use is made of evidence and/or theoretical analysis to evaluate the issues/arguments identified and to support conclusions. Spelling is generally accurate and the standard conventions of punctuation and grammar are usually followed. The answer is well organised. Descriptions and explanations are usually clearly expressed. Appropriate use is made of relevant economic terminology.

11 to 13 marks

Mid-Point 12 marks

Level 5

Three or more relevant issues are identified. Good understanding of basic economic concepts and models is demonstrated throughout. The candidate is able to apply these concepts and models to help answer the question. Clear understanding of alternative points of view is shown. Good use is made of evidence and/or theoretical analysis to evaluate the issues/arguments identified and to support conclusions. Spelling is generally accurate and the standard conventions of punctuation and grammar are usually followed. The answer is well organised. Descriptions and explanations are clearly expressed. Appropriate use is made of relevant economic terminology.

14 to 15 marks

Mid-Point 15 marks

THE KEY TO BE USED WHEN USING THE 'LEVELS' MARKING SCHEME

- D** Where a particular economic term is correctly **DEFINED** in order to help the candidate to answer the question properly.
- I** Where a relevant **ISSUE** is raised by the candidate.
- K** Where the candidate demonstrates **KNOWLEDGE** of recent developments of features of the economy which help enhance the candidate's response to the question. This should also be used where the candidate quotes relevant examples.
- Ap** Where the candidate demonstrates the ability to **APPLY** knowledge and **CRITICAL UNDERSTANDING** to problems and issues.
- A** Where the candidate demonstrates the ability to **ANALYSE** the problem using appropriate economic ideas.
- E** Where the candidate **EVALUATES** and makes judgements about the significance of various issues and arguments.

QUALITY OF WRITTEN COMMUNICATION

The Mark Band Descriptors, which are used for assessing part (c) of the questions, incorporate statements which relate to the Quality of Written Communication used by the candidates.

However, it is also important to assess Quality of Written Communication **whenever** candidates produce answers using continuous prose. When applying an issue based mark scheme, examiners must take into account the following when deciding how many marks to award for development:

- (i) use of an appropriate form and style of writing to organise relevant information clearly and coherently;
- (ii) use of specialist vocabulary, where appropriate;
- (iii) legibility of handwriting;
- (iv) accuracy of spelling, punctuation and grammar.

EITHER**1****Total for this question: 25 marks**

1 (a) Using **Extract A**, compare the changes in the prices of crude oil and corn over the period shown. *(4 marks)*

Award up to 2 marks each for each valid point made (one mark for identification and one mark for supporting reference(s) to the data). The valid points include:

- The prices of both crude oil and corn increased over the whole period, e.g. from \$11 to \$60 a barrel in the case of oil, and from about \$90 to about \$162 dollars a tonne in the case of corn
- The prices of both crude oil and corn fluctuated up and down during the whole period
- The price of both crude oil and corn reached their peaks in 2006
- The price of both goods reached their lowest points at roughly the same time in 2000, though the price of corn fell and rose significantly in 2000
- The price of crude oil ranged from a low of about \$11 a barrel to a high of about \$68 a barrel whereas the price of corn ranged from a low of just over \$77 a tonne to a high of about \$165 a tonne
- Both prices were rising towards the end of the period, though the crude oil price dipped for a time in 2006

A maximum of **2 marks** if there is no use of correct statistics.

If the candidate simply trawls through the data, award a maximum of **2 marks**.

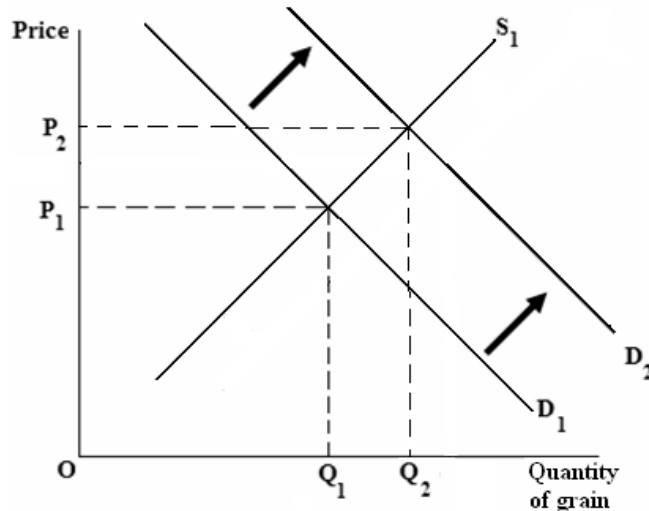
Award **3 marks** where there is evidence of an overview having been taken, even though parts of the answer give an impression of a trawl through the data.

MAXIMUM FOR PART (a) 4 MARKS

1 (b) With the help of a demand and supply diagram and using the information in **Extract B**, explain why the prices of grains such as corn and wheat were rising in 2007. (6 marks)

The anticipated response for the diagram:

Candidates may draw a diagram similar to the one below. The diagram shows a rightward shift in the demand curve for grain.



Breakdown of the marks for the diagram:

Axes labelled (price and quantity or P and Q will do)	1 mark
Original demand and supply curves correctly labelled	1 mark
Co-ordinates drawn in at the initial equilibrium and labels such as P_1 and Q_1	1 mark
Rightward shift of the demand curve	1 mark
Co-ordinates drawn in at the new equilibrium and labels such as P_2 and Q_2	1 mark

Any other relevant feature of the diagram (e.g. the amount of excess demand at the original equilibrium *after* the demand curve has shifted)

1 mark per feature up to a maximum of 2 marks

Up to 4 marks for the diagram

Note: some candidates may draw a diagram showing demand for, and supply of, grain solely as a foodstuff. In such a diagram, the supply curve could shift leftward as supply is diverted away from food and into biofuel production. Reward such an approach with a maximum of 4 marks for the diagram

Also, since Extract B states '*Farmers should be able to meet increased demand for grains such as corn (maize) and wheat simply by growing more*', some candidates may draw diagrams in which both the demand and supply curves shift rightward, but with the shift of supply being less than the shift of demand'. Reward such diagrams.

The anticipated written response:

For candidates who

define demand and/or supply:

**Up to 1 mark per definition
Maximum of 1 mark for definitions**

explain why the demand curve for grains shifts rightward because of the increased use of grain in biofuel **Up to 2 marks**

explain why the demand curve for grains shifts rightward because richer consumers eating more food: **Up to 2 marks**

explain why the demand curve for grains shifts rightward because of richer consumers eating more meat which requires increased use of grain as an animal feed: **Up to 2 marks**

explain the adjustment to the new equilibrium price: **Up to 2 marks**

explain any other relevant point, e.g. the rightward shift of demand must have been greater than the rightward shift of supply for the prices of grains to rise: **Up to 2 marks per point**

Up to a MAXIMUM of 4 marks for a written explanation

MAXIMUM FOR PART (b) 6 MARKS

1 (c) 'Italian consumer associations have asked the Italian government to intervene in the pasta market to reduce the prices of goods such as spaghetti' (**Extract C**, lines 10-11).

Using the data and your economic knowledge, evaluate the economic case **for** and **against** the Italian government intervening in the pasta market to try to reduce pasta prices. (15 marks)

In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion, if they are to be awarded **more than 7 marks**.

Examples of evaluation include: *considering the effectiveness of different forms of intervention; debating whether the increase in pasta prices results from short-lived or more permanent underlying causes; assessing the opportunity cost of intervention; considering the effect on economic efficiency.*

Candidates should not be awarded **above Level 3** if evaluation does not go beyond the superficial. However, within this constraint there is scope to reward more implicit evaluation, ie where there is some evidence of judgements having been made by candidates as to what are relevant/irrelevant issues.

To gain **Levels 4 or 5 (11 or more marks)**, there needs to be more explicit evaluation, perhaps along the lines suggested above, and clear evidence of critical/informed comment on issues raised, the ability to make judgements, and the ability to draw conclusions from the material presented in the answer.

Candidates should not be awarded more than **12 marks** if there is no **explicit** reference to the data.

The issues identified below are intended to provide an indication of some of the areas which might be discussed. Candidates can only be expected to consider a few of these issues in the time available.

Issues and areas for discussion include:

- Methods of intervention such as subsidy and price ceilings;
- Effect on relative prices in Italy;
- Effect on pasta producers and farmers in Italy and elsewhere;
- Effect on economic efficiency and resource allocation;
- Opportunity cost arguments;
- Distributional effects;
- Short-term versus long-term considerations;
- Market failure considerations
- Government failure considerations

Also give credit for:

- Relevant use of data and/or candidate's knowledge;
- Relevant use of evidence;
- Overall assessment.

Maximum of 9 marks if only the case for or the case against is discussed.

USE THE LEVELS MARK SCHEME ON PAGES 5 & 6

MAXIMUM FOR PART (c) 15 MARKS

OR

2

Total for this question: 25 marks

2 (a) Using **Extract D**, compare the changes in electricity generation from hydroelectric and other renewable sources as proportions of total UK electricity generation over the period 1990 to 2005. *(4 marks)*

Award up to 2 marks each for each valid point made (one mark for identification and one mark for supporting reference(s) to the data). The valid points include:

- Hydro power's contribution to total UK electricity generation fell over the period, from about 1.7% to about 1.3%, whereas the contribution of other renewable energy sources rose from about 0.25% to about 2.9%
- In all the years, other renewable resources' contribution rose, e.g. from about 2.25% to about 2.9% between 2004 and 2005, whereas hydro's contribution fluctuated, e.g. falling from about 1.25% to about 0.7% between 2002 and 2003, which was followed by an increase to back to about 1.25% in 2004
- Other renewable resources' contribution was below that of hydro between 1990 and 2000, but overtook hydro power's contribution in 2001
- The range between the highest and lowest contribution for hydro was about 1.7% minus about 1.3%, or 0.4%, whereas that for other sources of energy was greater at about 2.9% minus 0.25%, or 2.65%

A maximum of **2 marks** if there is no use of correct statistics.

If the candidate simply trawls through the data, award a maximum of **2 marks**.

Award **3 marks** where there is evidence of an overview having been taken, even though parts of the answer give an impression of a trawl through the data.

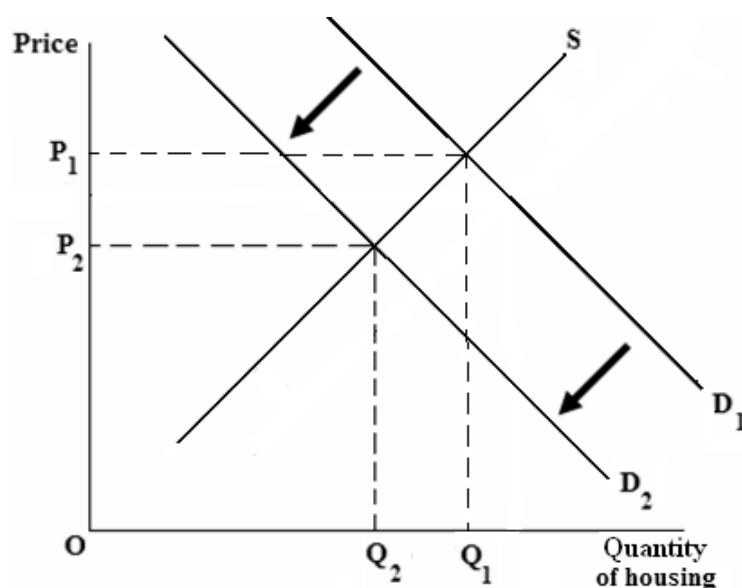
MAXIMUM FOR PART (a) 4 MARKS

2 (b) **Extract E** (line 12) states that wind turbines lead to the “negative externality of ‘eyesore’ or visual pollution”.

With the use of a diagram, explain how the building of wind turbines may affect house prices in the area in which the wind turbines are located. (6 marks)

The anticipated response for the diagram:

Candidates may draw a diagram similar to the one below. The diagram shows a leftward shift in the demand curve for housing.



Breakdown of the marks for the diagram:

Axes labelled (price and quantity or P and Q will do)	1 mark
Original demand and supply curves correctly labelled	1 mark
Co-ordinates drawn in at the initial equilibrium and labels such as P_1 and Q_1	1 mark
Leftward shift of the demand curve	1 mark
Co-ordinates drawn in at the new equilibrium and labels such as P_2 and Q_2	1 mark

Any other relevant feature of the diagram (e.g. the amount of excess supply at the original equilibrium *after* the demand curve has shifted)

1 mark per feature up to a maximum of 2 marks

Up to 4 marks for the diagram

Note: some candidates may draw a diagram based on the assumption that the demand curve for housing shifts rightward, because houses are needed for workers building and/or maintaining the wind turbines, and/or because the wind turbines become a tourist attraction. Allow marks for such a diagram provided the diagram is consistent with the written explanation provided.

The anticipated written response:

For candidates who

define externality/or negative externality:

**Up to 1 mark per definition
Maximum of 1 mark for definitions**

For candidates who, for the written explanation:

explain why the demand curve for housing shifts leftward because 'eyesore' pollution makes it less attractive to live in the area where the turbines are located: **Up to 2 marks**

explain why the demand curve for housing shifts leftward because of a decline in the demand for workers in tourist industries: **Up to 2 marks**

explain why the demand curve for housing may shift rightward because construction and/or maintenance workers for the turbines need housing: **Up to 2 marks**

explain the adjustment to the new equilibrium price: **Up to 2 marks**

explain any other relevant point, e.g. the possible effect of the price elasticity of supply of housing; **Up to 2 marks per point**

Maximum of 4 marks for a written explanation

MAXIMUM FOR PART (b) 6 MARKS

2(c) Using the data and your economic knowledge, evaluate the economic case **for** and **against** leaving the provision of renewable energy to market forces. (15 marks)

In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion, if they are to be awarded **more than 7 marks**.

Examples of evaluation include: *arguing that market forces can effectively supply wind energy but not other forms of renewable energy such as wave energy; arguing that markets are prone to take account only of short-term and not long-term considerations; the 'level playing field' argument that non-renewable energy sources may be, or are, subsidised so renewable energy should also be subsidised; debating what 'market forces' means, i.e. does the question relate to non-market provision or to subsidised market provision.*

Candidates should not be awarded **above Level 3** if evaluation does not go beyond the superficial. However, within this constraint there is scope to reward more implicit evaluation, ie where there is some evidence of judgements having been made by candidates as to what are relevant/irrelevant issues.

To gain **Levels 4 or 5 (11 or more marks)**, there needs to be more explicit evaluation, perhaps along the lines suggested above, and clear evidence of critical/informed comment on issues raised, the ability to make judgements, and the ability to draw conclusions from the material presented in the answer.

Candidates should not be awarded more than **12 marks** if there is no **explicit** reference to the data

The issues identified below are intended to provide an indication of some of the areas which might be discussed. Candidates can only be expected to consider a few of these issues in the time available.

Issues and areas for discussion include:

- The world's and the UK's future energy crisis when non-renewable fuels run out;
- The negative externalities discharged by both renewable and non-renewable fuels;
- The ability of the market to provide renewable energy;
- How the market mechanism can, in principle, lead to the development and use of alternative, clean, energy sources, through changes in relative prices, incentive effects and the profit motive;
- Discussion of whether the market mechanism can produce *sufficient* renewable energy;
- The market is likely to be better at producing *some* renewable energy, e.g. wind energy, but *not others*, e.g. wave energy;
- Nuclear energy as an alternative, and/or is nuclear energy renewable?
- Short-term versus long-term considerations;
- Market failure considerations
- Government failure considerations

Also give credit for:

- Relevant use of data and/or candidate's knowledge;
- Relevant use of evidence;
- Overall assessment.

Maximum of 9 marks if only the case for or the case against is discussed.

USE THE LEVELS MARK SCHEME ON PAGES 5 & 6

MAXIMUM FOR PART (c) 15 MARKS