

Centre No.						Paper Reference		Surname	Initial(s)
Candidate No.						<b>6 3 5 2 / 0 1</b>		Signature	

Paper Reference(s)

**6352/01**

# Edexcel GCE

## Economics

### Advanced Subsidiary

Unit 2 – Markets: why they fail

Friday 9 June 2006 – Afternoon

Time: 1 hour

Examiner's use only

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Team Leader's use only

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**Materials required for examination**  
Nil

**Items included with question papers**  
Nil

Question Number	Leave Blank
1	
2	
Total	

### Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initial(s) and signature. Check that you have the correct question paper.  
Answer EITHER Question 1 OR Question 2 in the spaces provided in this question paper.  
Indicate which question you are answering by marking the box (☒). If you change your mind, put a line through the box (☒) and then indicate your new question with a cross (☒).

### Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. (2). There are two questions in this question paper. The total mark for this paper is 40. There are 16 pages in this question paper. Any blank pages are indicated.

### Advice to Candidates

You will be assessed on your ability to organise and present information, ideas, descriptions and arguments clearly and logically, including your use of grammar, punctuation and spelling. You are advised to spend the first 10 minutes reading the paper. In calculations you are advised to show all the steps in your working.

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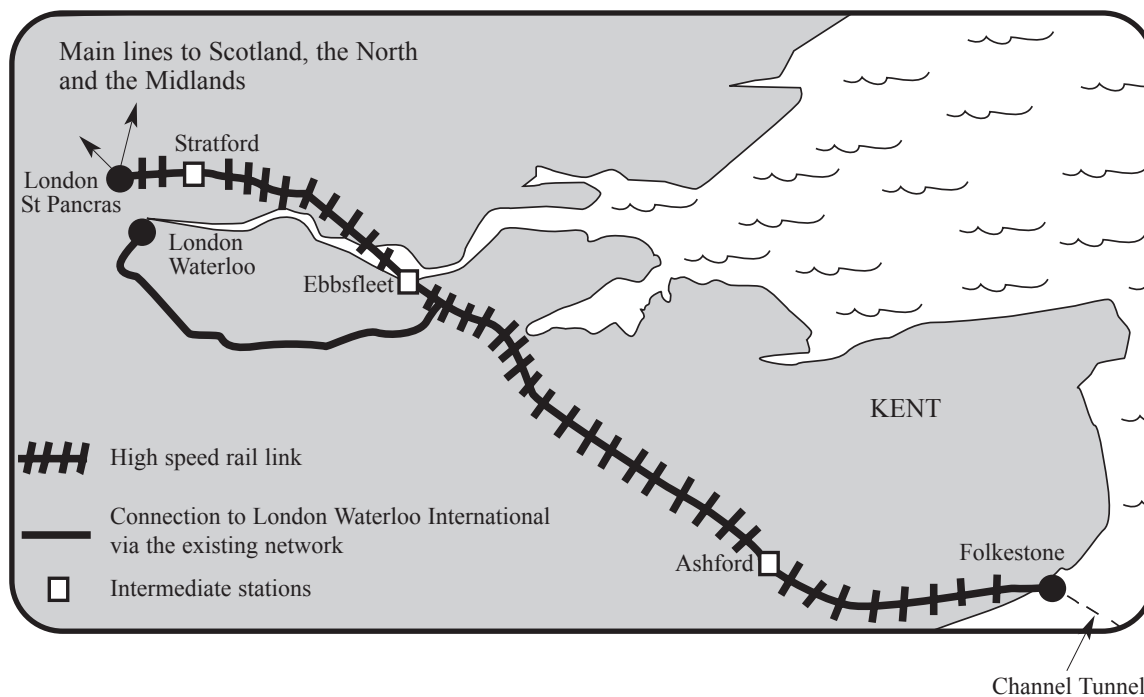
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Answer EITHER Question 1 OR Question 2.

If you answer Question 1 put a cross in this box .

**Question 1 High Speed Rail Link between London and the Channel Tunnel**

**Figure 1 Map of high speed rail link**



Source: [www.railwayforum.com](http://www.railwayforum.com)

**Figure 2 Estimated external benefits of high speed rail link, 1998–2052 (Government estimates)**

	£ million
International passenger benefits (i)	1800
Domestic passenger benefits (ii)	1000
Road decongestion benefits (iii)	120
London and Kent regeneration benefits	500
<b>Total</b>	<b>3420</b>

(i) and (ii) Benefits from passenger traffic which include time savings.

(iii) Benefits from reducing road congestion as traffic switches to the high speed rail link.

Source: Data based on information in the National Audit Office's 2001 report, *The Channel Tunnel Rail Link*



**Extract 1 Estimated costs of the high speed rail link**

The high speed rail link is the UK's first major new railway for over a century – a high speed line running for 68 miles between St Pancras in London and the Channel Tunnel at Folkestone. The project is expected to be completed in 2007 at a financial cost of £5.5 billion, of which £3.7 billion has been raised by London and Continental Railways, a consortium of eight engineering, banking and train operating companies. The remaining £1.8 billion comes from a government subsidy. However, long-term and large-scale projects are well-known for under-estimating costs.

The consortium attempted to reduce the environmental impact of the rail link by constructing 16 miles of underground tunnels and running much of the line alongside existing major roads. This also helped to limit the impact on nearby property prices. Over 1.2 million native trees have been planted and 230 hectares of woodland created to restore wildlife and reduce noise pollution.

The high speed rail link may lead to a decline in business for cross channel air travel and ferry services. Sea crossings from Folkestone to France closed down long ago and there are fears that services from other ports could follow.

Source: adapted from 'The Channel Tunnel Rail Link', National Audit Office, HC302, 28 March 2001, and [www.ctrl.co.uk](http://www.ctrl.co.uk)

**Extract 2 Estimated benefits of the high speed rail link**

More than 8,000 jobs have been created in constructing the rail link and a further 2,000 will come from its operation. Once completed, the journey time from London to Paris will be 2 hours and 15 minutes and from London to Brussels just 2 hours, boosting international trade and tourism.

International rail services between the UK and Europe will double in capacity and new international rail stations will be created at Stratford in East London, Ebbsfleet in the Thames Gateway and Ashford in Kent.

Domestic journey times between London and East Kent will be halved. A journey from London to Ashford will take just 35 minutes compared with the current 75 minutes. It will also release capacity for rail services to run on the existing network in East Kent and alleviate road congestion in the region. The government believes the new rail link will open up East London and the Thames Gateway for redevelopment, leading to more than 50,000 jobs and £8 billion of investment.

The government justified its £1.8 billion subsidy because of the estimated external benefits from the rail link which are expected to exceed £3.4 billion, as shown in Figure 2. However, the National Audit Office has questioned the methodology and accuracy of the figures. It points out that regeneration benefits are normally excluded from such appraisals. Furthermore, London and Continental Railways have previously overestimated the growth of passenger numbers using the Channel Tunnel.

Source: adapted from 'The Channel Tunnel Rail Link', National Audit Office, HC302, 28 March 2001, and [www.ctrl.co.uk](http://www.ctrl.co.uk)



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(a) Using examples from the high speed rail link, explain the terms

(i) external costs.

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(ii) private costs.

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(b) Analyse **one** problem associated with estimating the external costs and **one** problem associated with estimating the private costs of a major project such as the high speed rail link.

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(c) Examine the view that the government subsidy for building the high speed rail link is justified by its external benefits. Illustrate your answer with a diagram.

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If you answer Question 2 put a cross in this box .

**Question 2**

**Wind Power Farms**

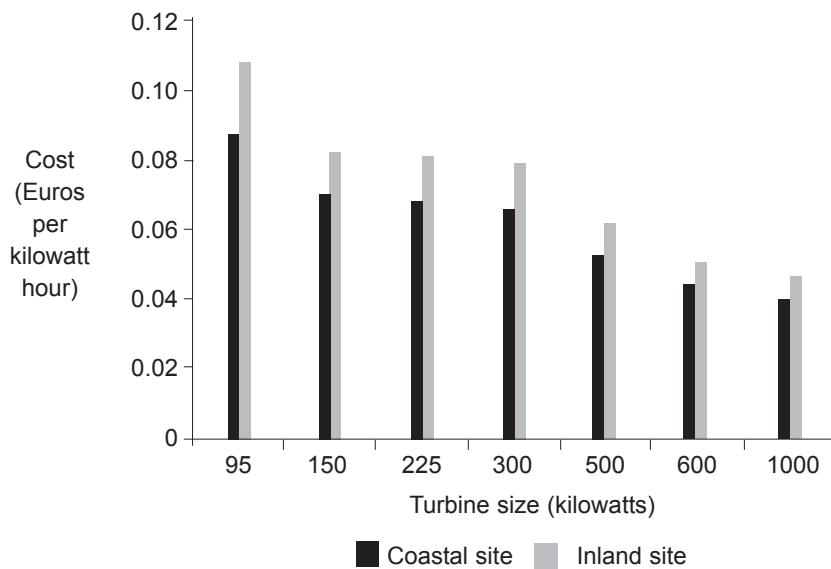
**Figure 1 Electricity generation from wind power by selected EU countries (2003)**

Country	Megawatts
Germany	14,609
Spain	6,202
Denmark	3,110
Netherlands	912
UK	649
France	239
Total EU-25 countries	28,542

Sources: adapted from European Wind Energy Association 2004, [www.EWEA.org](http://www.EWEA.org); and [www.bbc.co.uk](http://www.bbc.co.uk)

**Figure 2**

**Cost of wind power by turbine size**



Source: adapted from European Wind Energy Association 2004, [www.EWEA.org](http://www.EWEA.org)



**Extract 1                      The growth of wind power farms**

Up to 2500 turbines, some 80 metres tall, will be built over the next few years along the English and Welsh coasts as part of the world's largest offshore wind farm development programme. The scheme will generate enough power for one in six homes, a combined capacity of 7200 megawatts. In the past, governments were reluctant to fund such schemes. This was partly because of their high start-up costs and also the plentiful availability of other energy resources in the UK, notably oil, gas and coal. However, these non-renewable energy resources are diminishing rapidly today. The government now takes seriously the development of renewable energy sources, demonstrated by a large increase in subsidy to over £500 million between 2002 and 2008.

The government insists the visual impact of the giant turbines, to be built in blocks of as many as 300 up to twenty kilometres from the shore, will be small. 'On a clear day they will look like tiny masts of distant yachts,' says Patricia Hewitt, Trade and Industry Secretary. By moving offshore, it is hoped the schemes will not face the severe local opposition of onshore wind farm developments.

After a slow start, these developments will be essential if Britain is to meet its target of generating 10 per cent of its electricity from renewable energy sources by 2010, rising to 15 per cent by 2015.

Christian Kjaer, Director of the European Wind Energy Association, explained that the cost of generating electricity from wind has fallen by 80 per cent in the past fifteen years, reducing the need for government subsidies. Economies of scale have developed as the industry has grown. In the UK more than 4000 people are employed in the manufacture and construction of wind farms and this is expected to grow to over 24,000 by 2020.

Source: adapted from Andrew Taylor, 'Power policy shift envisages 2,500 turbines',  
© *Financial Times*, 19 December 2004

**Extract 2                      Renewable Energy Obligation Certificates**

The private cost of generating electricity from wind power is higher than from fossil fuels and nuclear energy. However, if external costs are added, wind power becomes the cheapest according to the European Commission. To overcome the cost gap and avoid market failure, the government has introduced a system of 'Renewable Energy Obligation Certificates' (REOCs).

REOCs require all electricity suppliers to obtain an increasing proportion of their power from renewable energy sources. At present they are required to achieve 4.9 per cent, but this will rise to 15.4 per cent by 2015. Electricity supply companies which fail to achieve their target have to pay a fine for any shortfall. These payments are then redistributed among those electricity suppliers which successfully achieve their targets. It is expected that electricity bills for consumers (both households and firms) will increase as suppliers try to pass on the extra costs.

The British Wind Energy Association believes REOCs will encourage more investment in wind farms and other forms of environmentally-friendly energy sources.

Source: British Wind Energy Association, *Focus Magazine*, November/December 2004



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- (a) Refer to Figure 1 and the first paragraph in Extract 1. Outline **two** factors that might explain the differences in electricity generation from wind power between the UK and one other country shown.

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- (b) (i) Define *economies of scale*.

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(d) (i) What is meant by *market failure*?

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(ii) Discuss, using the concept of externalities, the government’s policy of encouraging the generation of electricity from wind power farms. Illustrate your answer with a diagram.

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