

Advanced GCE
ECONOMICS

Unit F584: Transport Economics

Specimen Paper

Additional Materials: Answer Booklet (...pages)

F584

Morning/Afternoon

Time: 2 hours



INSTRUCTIONS TO CANDIDATES

Answer Section A and **one** question from Section B.

INFORMATION FOR CANDIDATES

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

The total number of marks for this section is **60**.

ADVICE TO CANDIDATES

- Read each question carefully and make sure you know what you have to do before starting your answer.
- You will be assessed on the quality of written communication in part (b) of Section B.

This document consists of **4** printed pages.

Unit 3: Transport Economics

Section A

Answer **all** questions

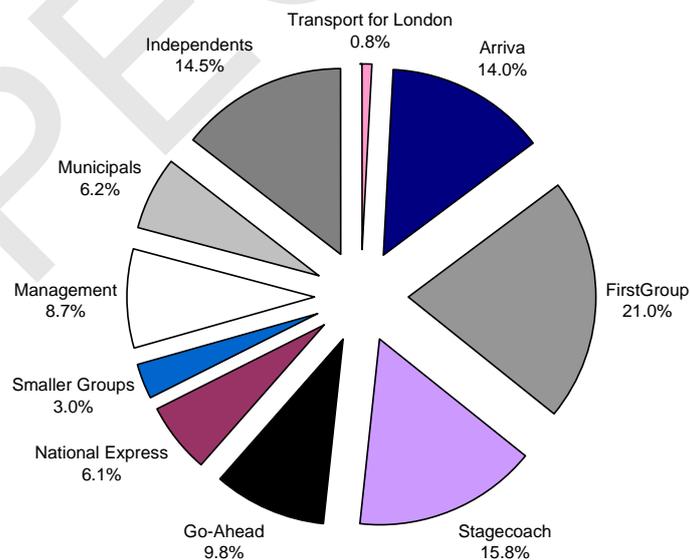
Bus deregulation 20 years on – no longer a contestable market?

It is now 20 years ago that local bus services in Britain were deregulated. At the time, it was claimed that this controversial policy would increase competition by making the market contestable. In principle, it became easier for firms, large and small, to enter the market as barriers to entry were removed. An Operator's Licence was the only requirement for firms wishing to provide local bus services.

In December 2005, the Barnsley-based Traction Group, the largest remaining independent company with a 6% national market share, was bought by Stagecoach in a massive £25m deal. This acquisition has given Stagecoach substantial new operations in South and West Yorkshire, Lincolnshire and Dundee.

Fig. 1 below shows the market shares of the main bus operators in 2005 before Stagecoach's acquisition of the Traction Group.

Figure 1: Market Shares of UK Bus Operators, 2005



Reprinted courtesy of Bus Industry Monitor 2005, TAS Publications & Events Ltd

- 1 (a) (i) Use a concentration ratio to describe the market structure of the UK bus market as shown in Figure 1. [3]
- (ii) How has Stagecoach's purchase of the Traction Group affected the concentration of ownership in this market? [3]
- (b) (i) State and explain **three** likely barriers to entry to new firms wishing to join the local bus market at the present time. [6]
- (ii) Comment upon how the strength of barriers to entry can determine the market structure of an industry. [5]
- (c) Discuss how Stagecoach's acquisition of the Traction Group might affect the contestability of the local bus market in the UK. [8]

Section A Total: [25 Marks]

Section B**Answer one question.**

- 2 (a) Explain the economic principles that underpin road pricing. [15]
- (b) Discuss the extent to which the proposed national system of road user charging announced in July 2005 might lead to a more efficient allocation of resources. [20]
- 3 (a) Explain the reasons for the substantial growth in demand for low-cost air transport in Europe. [15]
- (b) Discuss whether economists are right to have increasing concerns over the growth in demand for low-cost air transport in Europe. [20]
- 4 (a) Explain why economists classify a new stretch of road as a quasi-public good. [15]
- (b) Discuss the extent to which the Department for Transport's 'New Approach to Road Appraisal' overcomes criticism of the traditional cost-benefit approach. [20]

Section B Total: [35 Marks]**Paper Total: [60 Marks]**

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The maximum mark for this paper is 60.

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Section A		
Question Number	Answer	Max Mark
1(a)(i)	<p>Use a concentration ratio to describe the market structure of the UK bus market as shown in Figure 1.</p> <p>Max 3 marks.</p> <p>The market is oligopolistic. [1]</p> <p>The five-firm concentration ratio is 66.7. [2]</p> <p>Ownership is concentrated in the hands of a small number of providers. [1]</p>	[3]
(a)(ii)	<p>How has Stagecoach's purchase of the Traction Group affected the concentration of ownership in this market?</p> <p>Max 3 marks.</p> <p>Stagecoach's purchase of the Traction Group has increased the five-firm concentration ratio [1] to 72.7%. [1]</p> <p>This has made Stagecoach the largest provider of services. [1]</p> <p>Two firms, Stagecoach and First Group, now have very similar market shares. [1]</p>	[3]
(b)(i)	<p>State and explain <u>three</u> likely barriers to entry to new firms wishing to join the local bus market at the present time.</p> <p>Various possibilities include:</p> <ul style="list-style-type: none"> • high set up costs in order to compete; • intimidation from established operators; • limit pricing; • absence of economies of scale for new firms; • shortage of local bus drivers. <p>One mark for identification plus one mark for explanation in each case.</p>	[6]
(b)(ii)	<p>Comment upon how the strength of barriers to entry can determine the market structure of an industry.</p> <p>Barriers to entry limit the entry of new firms into an industry. [1]</p> <p>High barriers to entry apply in monopoly and oligopoly. [1]</p> <p>Award up to three further marks for a comment on how these characteristics can be used to explain the differences between (say) monopolistic competition and perfect competition/ monopoly.</p> <p>The comment is likely to be in terms of the relative strength of barriers to entry. Key role of contestability in determining entry into markets is also relevant.</p>	[5]

Section A		
Question Number	Answer	Max Mark
(c)	<p>Discuss how Stagecoach's acquisition of the Traction Group might affect the contestability of the local bus market in the UK.</p> <p>Up to three marks for an analysis of contestability in a market in terms of:</p> <ul style="list-style-type: none"> • pool of entrants waiting to enter; • ease of barriers to entry and exit; • number and size of firms is irrelevant; • normal profits only being earned. <p>Up to five marks for a discussion of the extent to which the local bus market is contestable at a national and local market level. The original aim of deregulation was to create a market structure resembling monopolistic competition. Over time, although contestability still applies, the scope for new entrants to make an impact is very limited. The use of local examples can enhance an answer. In principle, the Stagecoach acquisition of the Traction Group has made the market less contestable, especially in some parts of the country.</p>	<p>[3]</p> <p>[5]</p>
Section A Total		[25]

Section B		
Question Number	Answer	Max Mark
2(a)	<p>Explain the economic principles that underpin road pricing.</p> <p>The main economic principles relate to reducing market failure, namely to produce a better allocation of resources in the way that roads are currently used. At present, the prices paid by road users are muddled – some (e.g. peak users in central areas of cities) do not pay enough, others (e.g. rural road users) pay too much. Marginal social costs do not equal marginal private costs. Road user charging on a national scale seeks to address this problem taking into account when, where and in what traffic conditions vehicles are used.</p> <p>Level 3 [9-15]</p> <p>For an explanation of the economic principles that underpin the proposed national road user charging system. For 13+ marks, there must be a detailed explanation of how road pricing in its most sophisticated form should provide for marginal social costs to equal marginal private costs. A diagram would seem essential.</p> <p>Level 2 [5-8]</p> <p>For an application of knowledge and understanding of the economic principles that underpin the proposed national road user charging system. For 7+ marks, the application must refer to a specific example.</p> <p>Level 1 [1-4]</p> <p>For a knowledge and understanding of the economic principles that underpin the proposed national road user charging system. For 3+ marks, a clear knowledge of marginal social cost and marginal private cost is required.</p> <p><i>Synoptic knowledge:</i> <i>AS Unit 1:</i> <i>Market failure and government intervention.</i></p>	[15]
2(b)	<p>Discuss the extent to which the proposed national system of road user charging announced in July 2005 might lead to a more efficient allocation of resources.</p> <p>Research into the likely impact (e.g. Independent Transport Commission) shows very clearly that the proposed system will reduce road traffic congestion levels by up to 20%. The biggest effect will be on those roads and motorways that at present are the most congested e.g. M25, parts of the M6, M1, M4 and main routes into cities. On these roads, peak period users will pay up to 130p per mile – this will bring marginal social cost in line with marginal private costs. Elsewhere, given the tax neutral outcome, other users will pay less. All in all, a more efficient allocation of resources. The big unknown is whether assumptions about the price elasticity of demand for travel, personal travel behaviour and availability of public transport alternatives are correct.</p>	

Section B		
Question Number	Answer	Max Mark
2(b) cont'd	<p>Level 4 (a) [16-20] For a discussion that includes a judgement of the extent to which the proposed system will lead to a more efficient allocation of resources. This judgement should make clear the problems of measuring all the costs that are involved and difficulties of putting forward an acceptable technological solution.</p> <p>Level 4 (b) [11-15] For a balanced discussion of the case for and against a national system of road user charging. A discussion lacking in balance should receive no more than 13 marks.</p> <p>Complex ideas have been expressed clearly and fluently using a style of writing appropriate to the complex subject matter. Sentences and paragraphs, consistently relevant, have been well structured, using appropriate technical terminology. There may be few, if any, errors of spelling, punctuation and grammar.</p> <p>Level 3 [5-10] For an analysis of how the proposed system will lead to a more efficient allocation of resources. For 8+ marks, the analysis should refer back to the answer in part (a), linking theory and practice.</p> <p>Relatively straightforward ideas have been expressed with some clarity and fluency. Arguments are generally relevant, though may stray from the point of the question. There will be some errors of spelling, punctuation and grammar, but these are unlikely to be intrusive or obscure meaning.</p> <p>Level 2 [3-4] For the application of knowledge and understanding of how the proposed system will lead to a more efficient allocation of resources.</p> <p>Some simple ideas have been expressed in an appropriate context. There are likely to be some errors of spelling, punctuation and grammar of which some may be noticeable and intrusive.</p> <p>Level 1 [1-2] For knowledge and understanding of how the proposed system will lead to a more efficient allocation of resources.</p> <p>Some simple ideas have been expressed. There will be some errors of spelling, punctuation and grammar which will be noticeable and intrusive. Writing may also lack legibility.</p>	[20]

Section B		
Question Number	Answer	Max Mark
3(a)	<p>Explain the reasons for the substantial growth in demand for low-cost air transport in Europe.</p> <p>A good answer to this question should provide reasons that are drawn from the determinants of demand, for example:</p> <ul style="list-style-type: none"> • the price of low cost air transport is very attractive; • the price is very competitive with respect to substitutes such as rail travel (domestic) and travel by scheduled carriers (domestic and international). Threshold pricing is relevant; • rising real incomes/discretionary incomes; • the quality of the product may not have the same edge as alternatives, but this is only to be expected. New routes and the use of regional airports are positive quality variables; • low cost air transport appeals in some cases to a new segment of the population who would not otherwise have travelled. <p>Level 3 [9-15]</p> <p>For an explanation of the reasons for the substantial growth in demand. For 13+ marks, the answer should be clearly framed around the determinants of demand and include price as well as non-price factors.</p> <p>Level 2 [5-8]</p> <p>For an application of knowledge and understanding of the reasons for the substantial growth in demand. For 7+ marks, price and non-price reasons should be recognised and applied.</p> <p>Level 1 [1-4]</p> <p>For knowledge and understanding of the reasons for the tremendous growth in demand. For 3+ marks, price and non-price reasons should be described.</p> <p><i>Synoptic knowledge :</i> <i>AS Unit 1:</i> <i>Competitive markets and how they work.</i></p>	[15]
3(b)	<p>Discuss whether economists are right to have increasing concerns over the growth in demand for low-cost air transport in Europe.</p> <p>There are now over 80 low cost airlines in Europe. Many new routes were set up from May 2004 with the geographical enlargement of the EU. Concerns over sustainability relate to negative externalities associated with this growth, particularly as many passengers on low cost airlines would not otherwise have travelled. Such externalities include the use of fuel resources, atmospheric pollution and noise close to airports and for those living near flight paths. Forecasts are that the number of passengers will continue to grow at least by 8% per annum to 2025 – sustainability concerns are over the impact on the ability of future generations to travel in this way.</p>	[20]

Section B		
Question Number	Answer	Max Mark
3(b) cont'd	<p>Level 4 (a) [16-20] For a discussion that includes a judgement of whether economists are right to have increasing concerns over the growth of low-cost air transport in Europe. This judgement should be made in terms of economists' concerns with respect to the problems of internalising the cost of negative externalities in a controversial field of transport.</p> <p>Level 4 (b) [11-15] For a balanced discussion of the concerns over sustainability. A discussion lacking in balance should receive no more than 13 marks. Complex ideas have been expressed clearly and fluently using a style of writing appropriate to the complex subject matter. Sentences and paragraphs, consistently relevant, have been well structured, using appropriate technical terminology. There may be few, if any, errors of spelling, punctuation and grammar.</p> <p>Level 3 [5-10] For an analysis of the concerns over sustainability. For 8+ marks the analysis should make clear the link between economic analysis and sustainability. Relatively straightforward ideas have been expressed with some clarity and fluency. Arguments are generally relevant, though may stray from the point of the question. There will be some errors of spelling, punctuation and grammar, but these are unlikely to be intrusive or obscure meaning.</p> <p>Level 2 [3-4] For the application of knowledge and understanding of the concerns over sustainability. Some simple ideas have been expressed in an appropriate context. There are likely to be some errors of spelling, punctuation and grammar of which some may be noticeable and intrusive.</p> <p>Level 1 [1-2] For knowledge and understanding of sustainability. Some simple ideas have been expressed. There will be some errors of spelling, punctuation and grammar which will be noticeable and intrusive. Writing may also lack legibility.</p>	

Section B		
Question Number	Answer	Max Mark
4(a)	<p>Explain why economists classify a stretch of road as a quasi-public good.</p> <p>Traditionally, a road was seen as a typical example of a public good, with funding being direct from the Road Fund Tax. This is no longer the case. New roads no longer exhibit the qualities of non-rivalry and non-excludability. As traffic congestion has increased, road space has become more rival – the costs of delays are a major source of external costs. Equally, non-car owners and those too young to drive are by definition excluded from using a road; in some case they may even have paid taxes to contribute to the road's maintenance.</p> <p>Level 3 [9-15]</p> <p>For an explanation as to why a road is a typical example of a quasi-public good. For 13+ marks, a qualification of both non-rivalry and non-excludability in terms of congestion, age and income is required.</p> <p>Level 2 [5-8]</p> <p>For application of knowledge and understanding of why a road is a typical example of a quasi-public good. For 7+ marks the application must include reference to both non-rivalry and non-excludability in the context of a road.</p> <p>Level 1 [1-4]</p> <p>For a knowledge and understanding of what is meant by a quasi-public good. For 3+ marks, a knowledge of non-rivalry and non-excludability is required, with both terms mentioned.</p> <p><i>Synoptic knowledge :</i> <i>AS Unit 2:</i> <i>The application of macro-economic policy instruments.</i></p>	[15]
4(b)	<p>Discuss the extent to which the Department for Transport's 'New Approach to Road Appraisal' overcomes criticisms of the traditional cost-benefit analysis approach.</p> <p>The focus of the New Approach is to assess the wider impact on the community of a new road scheme. It pays particular attention to severance, which is an important issue in many local by-pass schemes. It also looks as the environmental impact and draws upon EIA methods. It is though not a cost benefit approach. It is also impossible to put monetary values on the variables that are included. The criticisms of the traditional CBA approach remain to a large extent and include matters relating to the valuation of certain benefits and the forecasting of traffic flows over a long time period.</p>	

Section B		
Question Number	Answer	Max Mark
4(b) cont'd	<p>Level 4 (a) [16-20] For a discussion that includes a judgement of the extent to which the New Approach overcomes criticisms of the traditional CBA approach. The judgement should be made in terms of whether the New approach is more wide-ranging than the COBA model, particularly when taking into account environmental impacts.</p> <p>Level 4 (b) [11-15] For a balanced discussion of whether the New Approach overcomes criticisms of the traditional CBA approach. A discussion lacking in balance should be awarded no more than 13 marks. Complex issues have been expressed clearly and fluently using a style of writing appropriate to the complex subject matter. Sentences and paragraphs, consistently relevant, have been well structured, using appropriate technical terminology. There may be few, if any, errors of spelling, punctuation and grammar.</p> <p>Level 3 [5-10] For an analysis of how the New Approach differs from the traditional CBA approach. For 8+ marks, the analysis should make clear the difference in terms of environmental impact. Relatively straight forward ideas have been expressed with some clarity and fluency. Arguments are generally relevant, though may stray from the point if the question. There will be some errors of spelling, punctuation and grammar, but these are unlikely to be intrusive or obscure meaning.</p> <p>Level 2 [3-4] For the application of knowledge and understanding of how the New Approach differs from the traditional CBA approach. Some simple ideas have been expressed in an appropriate context. There are likely to be some errors of spelling, punctuation and grammar of which some may be noticeable and intrusive.</p> <p>Level 1 [1-2] For a knowledge and understanding of the New Approach. Some simple ideas have been expressed. There will be some errors of spelling, punctuation and grammar which will be noticeable and intrusive. Writing may also lack legibility.</p>	[20]
Section B Total		[35]
Paper Total		[60]

Assessment Objectives Grid (includes QWC)

Question	AO1	AO2	AO3	AO4	Total
1(a)(i)	1	2	0	0	3
1(a)(ii)	1	2	0	0	3
1(b)(i)	2	2	2	0	6
1(b)(ii)	2	0	0	3	5
1(c)	0	0	3	5	8
2(a)/3(a)/4(a)	4	4	7	0	15
2(b)/3(b)/4(b)	2	2	6	10	20
Totals	12	12	18	18	60