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## Contestability in bus markets - evidence from the British deregulated market

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### Contestability in bus markets - evidence from the British deregulated market

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For Peer Review

Contestability in bus markets – evidence from Great Britain

# CONTESTABILITY IN BUS MARKETS – EVIDENCE FROM THE BRITISH DE- REGULATED MARKET.

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## Abstract

Following the 1985 Transport Act in Great Britain, reforms in the provision of bus services continue across Europe and other parts of the world to this day. The British experience however remains a key point of study in informing these continuing developments. This paper looks at the issue of contestability in bus markets, and tests for the existence of the contestable market in Britain through an examination of fare levels, profit margins and technical efficiencies in 90 identifiable bus markets. The main conclusion is that there is evidence of the contestable market in Britain, however it can hardly be described as widespread, only found to be present in 15 of the 90 markets identified in the sample. The real issue however, particularly with regard to continuing reforms elsewhere in Europe, is the ability of regulatory authorities to maintain competitive and contestable (free) markets and the research suggests that in the face of market forces this is simply not possible. The only conclusion therefore is that contestability in the free market is not sustainable, and thus can only be introduced directly through franchising.

*Please note that for referring purposes this paper has been left in its final draft form, i.e. with tables and figures embedded in the text. If required however, this can be easily modified and resubmitted*

*Contestability in bus markets – evidence from Great Britain***INTRODUCTION**

Much has been written and published in the academic literature on the short and medium, and to a lesser extent the longer, term effects of the British Transport Act 1985. This act deregulated and privatised the British bus industry in the mid 1980s and introduced free market principles into the provision of bus services. Most of this research tends to be negative, with the main issues highlighted as over-bussing, considerable price increases, under investment, market consolidation and constant timetable changes. When taken together, all of these issues would suggest that the free market is not the means by which bus services should be provided. Put a more technical way, whilst in theory the industry apparently closely resembles the economist's model of perfect competition, and hence one in which competition should be sustainable and deliver economic efficiency, in practice it breeches several of the required characteristics of the model which results in imperfectly competitive market structures.

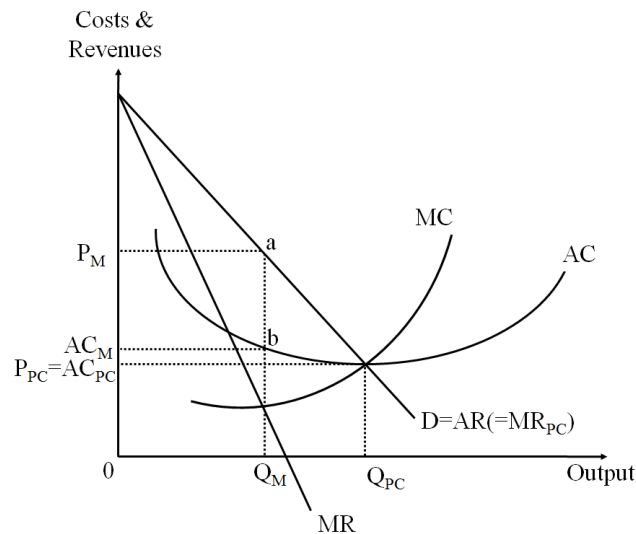
As will be seen later in this paper, most of this research completely ignores the issue of contestable markets along free market principles and the effect this might have on the economic efficiency of bus service provision. This paper therefore examines that particular issue and looks for evidence of its existence in the British de-regulated market. In order to bring the issue of the contestable market into focus, the paper begins with a brief overview of the theory surrounding the topic.

**THEORETICAL FRAMEWORK**

The idea of the contestable market was first introduced by William Baumol in his American Economic Review article of 1982 (Baumol, 1982). The main principles are best introduced by examining the standard textbook example of the difference between perfect competition and monopoly. These are compared in Figure 1.

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Figure 1: Monopoly v Perfect Competition



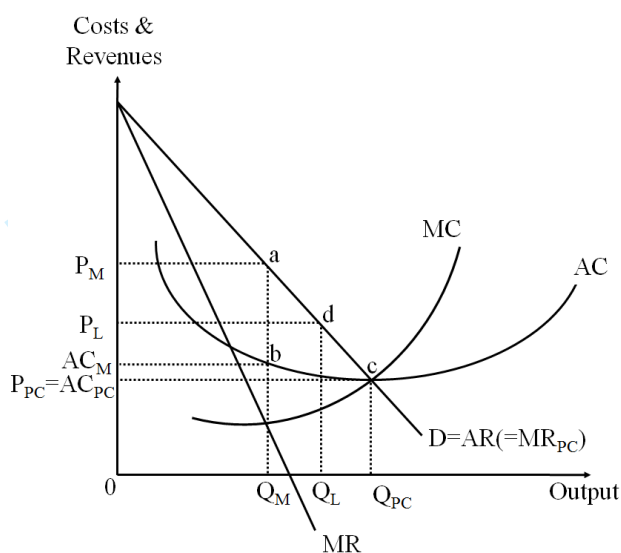
In Figure 1, cost curves and revenue conditions are assumed to be the same under both market structures. The average cost curve follows the theoretical u-shaped pattern with economies of scale up to the minimum efficiency scale and diseconomies thereafter. Added to the cost curves on Figure 1 is the demand curve, which again follows the usual theoretical downward sloping curve from left to right. Beginning with the monopolist, profits are maximised at output level  $Q_M$ , where the market price would be  $P_M$  and abnormal profits shown by the area outlined by  $AC_M$ ,  $P_M$ , a, b. In contrast, in the perfectly competitive market the operator can sell as much as they want at the prevailing market price, hence for the firm marginal revenue equals average revenue at all output levels. Profits under perfect competition are therefore maximised at output level  $Q_{PC}$ . The price charged would be  $P_{PC}$ , and only normal profits made. In the long run each firm would be producing at the MES point, hence productive efficiency is achieved. Also note that the consumer is paying the lowest possible price that will ensure that this good or service is produced, hence it is for these reasons that competition is generally viewed as a ‘good’ thing, i.e. because unlike monopoly, it ensures economic efficiency.

Baumol (1982) argued however that it was not only perfectly competitive markets that would produce efficient market behaviour, such as illustrated for the perfectly competitive firm in figure 1. Where a monopoly provider faced the ‘threat’ of potential competition then this would force the incumbent to act as if under a perfect (or near perfect) market structure. The monopolist would therefore only seek to achieve normal profits in order to deter market entry rather than maximise profits in the pursuit of monopoly profits. If the firm failed to maintain economic efficiency in terms of the price charged and the costs incurred, it would become vulnerable to entry by a lower cost operator that would eventually take the whole market and drive other operators out of business. In order to be contestable however, entry to the market must be free and exit costless. It is also argued that there must be no structural barriers to entry of firms in the long run. Like perfect competition therefore, such criteria are almost always too restrictive to exist in reality and thus very few, if any, markets are perfectly

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contestable. What is more likely however is that a monopolist in a potentially contestable market will set its level of output somewhere between  $Q_M$  and  $Q_{PC}$  in figure 1 dependent upon the level of barriers to entry. This can be illustrated by introducing the idea of Bain's limit price (Bain, 1956), which is illustrated in figure 2.

*Figure 2: The contestable market and Bain's limit price*



The output position of a monopolist facing a perfectly contestable market would map directly on to the perfectly competitive market position at point c on figure 2, hence producing economically efficient market behaviour. The higher the level of entry barriers however, then the greater degree of market protection these offer the monopolist and allows it to place greater restrictions on output in the pursuit of higher profits. In doing so, it thus moves further away from the perfectly competitive market position and more towards point a on Figure 2. Ultimately, if market barriers are of such an extent that the market is not contestable in any form, then the output position will map directly onto the monopolist's position at point a. If we take output level  $Q_L$  as representing a potentially contestable market, then at the associated market demand position of d the price will be set lower than the monopolist price at  $P_L$ , average costs will also be lower and by implication productive efficiency will be higher. One final point to note is that theoretically the level of profits, whilst abnormal, will be less than monopoly profits.

Applying the above theory to the subject under discussion, the British bus industry, three hypotheses can be specified to test for the existence of the contestable market, namely:

$$H1: \quad \bar{P}_L < \bar{P}_M$$

$$H2: \quad \bar{TE}_L < \bar{TE}_M$$

$$H3: \quad \bar{\pi}_L < \bar{\pi}_M$$

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Thus average prices (H1) and average profit levels (H2) will be lower in the contestable market, whilst average technical efficiency levels (H2) will be higher. Note that with regard to this last hypothesis, technical efficiencies are being used as a proxy for productivity efficiency, as data on this aspect is higher in both reliability and validity than for costs. Differences in technical efficiencies however should be more precisely defined as differences in scale efficiencies, as the basic assumption of figure 2 is that all firms face similar production conditions; hence differences in efficiencies are only due to monopolists not producing at the MES point. The following analysis however will also consider the possible existence of x-inefficiency (Leibenstein, 1966). This is said to occur where the absence of competitive pressures leads to a general management slack, and hence cost curves may not be as low as they should be, or in this case total factor productivity not as high as it should be.

What should also be noted is that the above three hypotheses are not being used to find evidence of the perfectly contestable market, but rather evidence of non maximisation of (monopoly) profits through the imposition of a limit price due to the contestability of the market. In order to be tested however, this first requires criteria to be specified to identify a contestable market in bus services

## **CONTESTABILITY IN BUS SERVICES**

The contestable market is normally introduced into bus services through some form of regulated system, and thus constitutes what is more generally known as Demsetz competition. London was one of the first to introduce this approach, when it moved from a model of complete public sector provision to one of public/private provision. Using the Strategic-Tactical-Operational (S-T-O) framework (Van de Velde, 1999) to illustrate this further, prior to reform all three functions were performed by the public sector. Demsetz competition was introduced into the market through retaining the S and T functions in the public sector, and contracting the O function out to the private sector. Hence Transport for London specifies the routes, fares and frequencies to be operated, and private sector firms operate the services under two to three year absolute cost contracts. Under a free market system however, S is a function of public and private decisions, with T and O held wholly in the private sector. This is no different whether the market is contestable or not. That does however raise the issue as to what actually constitutes a 'contestable' market in deregulated bus services. It should be noted that with the exception of express services, bus services generally operate on a local rather than a national basis, hence there is no one bus market in Britain but rather it is made up of a number of identifiable local markets. To take an obvious example, the Leeds bus market is quite distinguishable from the Manchester bus market. As a consequence, the main criteria used in this analysis to examine bus markets are with regard to entry barriers, market dependence and ownership form.

The first criterion used is the level of entry barriers, and specifically the possibility of retaliatory action by an incumbent. Hence when entering a specific bus market, is there the possibility that the incumbent will take retaliatory action and enter one of the new entrants existing markets and thereby spark off a national price war throughout the country? If there is

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little possibility of such a threat, this constitutes a low barrier to entry. Hence for example in 2001, First considerably expanded its operations in the Edinburgh bus market to compete directly with the incumbent operator, Lothian Buses. It did this without fear of Lothian entering one of its own ‘strongholds’, such as Glasgow. If however it had chosen to enter the Newcastle market in direct competition with Stagecoach, it faced a very real threat of retaliatory action from Stagecoach in one of its own markets.

The second criterion used is dependence upon a single market, which in this context is fairly straightforward. Hence in the example given above, whilst the future of First was not dependent upon obtaining a strong presence in the Edinburgh market, the future of Lothian Buses was entirely dependent upon holding onto its market share. Thus dependence on a single bus market means it is contestable.

The final criterion used is ownership form/type. The general structure of the bus industry in Britain is an industry with small holding companies with a large number of reasonably independent subsidiaries. Thus for example whilst the bus operations of First Group plc consists of a total fleet of around 9,000 buses in more than forty major towns and cities, these are held by around thirty to forty wholly owned subsidiaries, such as First Glasgow Ltd, First Bristol Ltd, First Edinburgh Ltd and so on. Firms that operate in contestable markets however are generally private limited companies or local authority owned, with the common denominator that both are usually stand alone companies with few if any subsidiaries. Furthermore, both types of firms are locally owned with a strong local focus.

In the course of undertaking the research, it became clear that dependence upon a single market (share) is the key criterion in identifying contestable bus markets, as the other two are simply components of that main factor. For example, any firm wholly dependent upon a single market will inevitably be a stand alone firm. Furthermore, if a rival operator enters the market the incumbent is unlikely to have the resources available to take retaliatory action because it will be fully engaged in protecting its one and only ‘home’ market. These two criteria therefore were used as confirmatory factors rather than primary conditions.

## LITERATURE REVIEW

Most research in the area of contestable markets in transport services has been into the contestability of airline services, however studies have generally found little evidence of its existence. For example, Joesch and Zick (1994) examined the relationship between market concentration and fare levels at 19 destination specific markets – if this was found to be positive, this would suggest uncontested markets, whilst if no relationship was found, this would suggest contestability in the market. What their results showed was that over the period 1983 to 1990 the relationship had changed from statistically insignificant to strongly positively significant, suggesting that contestability of the market had been compromised. This they put down to the implementation of strategic barriers in the form of control of passenger departure gates, the rising importance of reservation systems and frequent flyer programmes. Dominaco (2007) reports similar action in European airline markets from

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incumbents to tighten up the market following regulatory reforms, hence again compromising contestability. Finally Baumol et al (1988), cited in Dominaco, report that numerous studies on airline services have found a positive correlation between market concentration and profitability, hence casting serious doubts on the applicability of contestability theory to the airline market.

A key article on the contestability of bus services, in fact one of the very few on the subject, is Landridge and Sealy (2000). They examined the extent to which the structure created on privatisation of the British bus industry by the Transport Act 1985 constituted a contestable market or not. The authors suggest that in the period immediately following deregulation and privatisation, former National Bus Company subsidiaries on the whole held on to their strong market positions whilst at the same time lowered operating costs and received significantly reduced levels of subsidy. This came about as awareness of the potential threat of competition was heightened during that period. As a result, it was not direct competition that produced such effects but rather the extent to which an incumbent's market share could be contested by new entrants. With significantly increased market concentration in the 1990s however, this initial response was replaced by (tacit) collusion brought about by market stability and hence contestability was lost. This is largely consistent with the research into airline services, where following deregulation firms initially compete on the basis of the contestable market, however in the medium to longer term seek to reduce contestability through imposing strategic barriers to entry. The authors' overall conclusion, based on a whole market overview, was that the British bus market was neither contestable nor competitive.

More research exists on contestable markets in bus services where it has been introduced through regulation, identified above as Demsetz competition. For example Van de Velde (2003) found that the introduction of market reforms across Europe had led to considerable supply side consolidations in a number of the countries examined, as well as savings in the level of subsidies required to support local transport services even after an upward trend in contract prices in subsequent bidding rounds. Preston (2001), in a review of bus and light rail systems in Europe, estimated that competitive bus markets had costs per vehicle kilometre some 23 per cent lower than limited competitive markets and 51 per cent lower than regulated markets.

Bray and Wallis (2008) reviewed the impact of reforms in the form of competitive tendering in the provision of bus services in Adelaide over the period 1994/5 to 2006/7 in terms of operating costs, bus boardings and public finance. They found that there had been a 4.1% p.a. turnaround in bus boardings from earlier trends and that operating costs had declined by 26% as a result of competitive tendering. Based on a counterfactual scenario, they estimated that this had led to a savings on public finance of \$30.2m in 2006/7 and \$224m over the whole period reviewed. Interestingly in the current context, Hensher and Stanley (2003) compare the cost of bus operations in Norway with Sweden and Denmark, where in the former only 7% of bus services had been competitively tendered but over 80% in the other two. What they found was that bus services in Norway were no less cost effective than in their Scandinavian counterparts. The authors cite Carlquist (2001) as identifying that it was the

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threat of more widespread introduction of competitive tendering in Norway which appeared to have motivated the reduction in costs.

Past literature therefore would seem to suggest that pure contestable markets in transport services are very seldom found, and where they have been identified incumbent operators have been able to erect strategic barriers to prevent the threat of potential competition in the longer term. Where contestability has been introduced through regulation however, or even the threat of such measures being introduced, this has produced results broadly consistent with the theory.

## DATA AND RESULTS

Due to data availability, data could not be collated for a cross section for a single point or period of time, thus different aspects of the above framework are examined at different points in time. The examination of prices is based on fares at the end of April 2009, whilst analysis of profit margins and efficiency are over the periods 2002 to 2005 and 2000 to 2005 respectively. The identification of ‘contestable’ markets was made based on factors present in the market in 2009. This therefore requires an assumption of consistency over the time periods used. With regard to firms identified as operating in contestable markets in 2009, as no major structural change (in terms of the criteria specified above) occurred in these markets during that time, this assumption is deemed to be valid. With regard to ‘dominant markets’, closer examination of the operators involved revealed that four had changed ownership in the intervening period (from stand alone operator to a subsidiary of one of the majors), hence these were removed from the analysis.

Information on the data used and the results are presented under the three headings of price, profit margins and efficiency analysis. In the case of the first two, prices and profit margins, a third market is introduced in the form of the competitive market. This is where a subsidiary of one of the majors is operating in direct competition with another major subsidiary. Thus for example in Coventry, National Express West Midlands faces strong competition from Stagecoach subsidiary Midland Red South (Stagecoach Warwickshire). Thus the latter is classified as operating in a competitive market. Whilst fares between bus markets can be separately identified and hence compared, profit margins become more problematic as ‘competitive’ bus operations could not be separated from the rest of the company, however this is still included to identify if the inclusion of a competitive market makes a noticeable difference. Comparison of efficiencies however became even more problematic, as the number of observations in the sample for the competitive market reduced considerably (to 4), hence this market type is not considered in that analysis.

### Prices

Information relating to prices was gathered directly from the internet. Pricing information for around 90 bus subsidiaries was gathered, however this tended to vary in the quantity of

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information available. The most complete websites quoted fares for single trips (staged and flat fare), return trips, day tickets, weekly tickets, monthly tickets and annual season tickets, however the level of consistency tended to vary. As a consequence, finding a single fare basis for comparison proved problematic. Virtually all sites however provided quotes for day, weekly and monthly tickets, hence all three are used in the following analysis. It should be noted however that particularly with regard to weekly tickets, some evidence was found of direct market pricing. In some markets therefore, fare levels may not reflect the level of potential or actual competition faced by the firm, but rather are more focused on demand side characteristics. As an example, Blackpool Transport Ltd charges a far higher fare for its weekly ticket than most other companies identified as operating in a contestable market, with this higher fare mainly reflecting the high degree of tourists in that particular location. Nevertheless, such ‘anomalies’ are typical of quantitative research and the whole point of basing findings on a reasonably sized sample.

The second factor when comparing fares between markets is that variations in fare levels may represent different ‘typical’ journey lengths, hence any price disparities may reflect these differences rather than dissimilarities in market conditions. This is the main reason why individual fares could not be compared and ‘open’ tickets with unlimited use, such as a day ticket, used in this analysis. Whilst this to some extent will still represent differences in ‘typical’ journey lengths, this issue will be minimised and also lessened further due again to the sample size which should even out any differences between the markets identified.

Table 1 therefore compares the prices of daily, weekly and monthly tickets in the three different market types.

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Table 1 – Fare level comparisons, weekly and monthly tickets prices in April 2009.

Summary Table	Summary Statistics		
	Day Tickets	Weekly Tickets	Monthly Tickets
<b>Dominant</b>			
Mean	3.56	13.63	47.31
Median	3.50	13.75	45.00
Maximum	4.60	18.00	64.00
Minimum	2.20	9.50	33.30
Standard Deviation	0.50	2.01	7.81
Number	50	54	60
<b>Contestable</b>			
Mean	3.09	11.91	42.12
Median	3.00	12.00	44.00
Maximum	3.80	16.00	54.00
Minimum	2.50	8.00	32.00
Standard Deviation	0.38	2.63	7.47
Number	17	17	17
<b>Competitive</b>			
Mean	3.20	12.32	42.14
Median	3.00	12.00	40.00
Maximum	4.50	15.00	53.00
Minimum	2.70	10.00	34.00
Standard Deviation	0.48	1.79	6.37
Number	11	11	11
<b>T Statistics</b>	T Values and Probabilities		
Dominant V Contestable Prob (2 tails)	3.9669 0.0003	2.5011 0.0199	2.5954 0.0149
Dominant v Competitive Prob (2 tails)	2.2418 0.0395	2.1940 0.0433	2.4764 0.0241
Contestable v Competitive Prob (2 tails)	-0.6115 0.5485	-0.4862 0.6309	-0.0071 0.9944

Examination of the summary statistics presented in the top half of Table 1 strongly indicate that with regard to pricing, there is evidence of contestability in the market, with mean and median fares tending to follow the general pattern of dominant, competitive and then contestable in descending order. The T statistics find that these differences in fare levels

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between dominant and contestable/competitive markets are statistically significant, however no statistical difference is found between contestable and competitive markets. Consistent with the theory, this suggests that in terms of pricing levels, the threat of competition to the firm in the contestable market will force it to behave as if it did face actual competition.

### Profit Margins

Whilst profit margins do not equate with profit maximisation, they are used in this analysis in order to provide a directly comparative measure of the level of profit derived from bus operations. Furthermore, restricting supply, a measure consistent with monopolistic behaviour, would be entirely consistent with obtaining a higher profit margin. Therefore profit margins are believed to be an appropriate proxy for a comparison between profit levels for contestable, competitive and dominant markets. In Table 2, average values and related t statistics are presented over a five year period. These were all calculated from the relevant statistics found in the Bus Industry Monitor (see for example TAS 2005) for each of the years considered.

Table 2: Profit Margins, 90 Major Bus Subsidiaries, 2002 to 2005

	2002	2003	2004	2005
Means				
Dominant	9.63%	8.91%	6.71%	5.27%
Contestable	5.40%	4.67%	2.41%	2.80%
Competitive	9.37%	7.61%	7.61%	1.70%
T Statistics:				
Dominant v Contestable	2.8943	2.2012	1.5401	1.2792
Prob (2 tails):	0.0070	0.0396	0.1392	0.2148
Dominant v Competitive	0.1453	0.6589	-0.4295	0.8645
Prob (2 tails):	0.8863	0.5214	0.6730	0.4076
Contestable v Competitive	-2.0010	-1.1447	-1.1884	0.2500
Prob (2 tails):	0.0592	0.2636	0.2458	0.8068
Medians:				
Dominant	9.97%	9.30%	7.19%	6.37%
Contestable	4.37%	4.61%	3.46%	4.60%
Competitive	11.39%	9.53%	9.27%	7.25%

Table 2 shows less of a clear difference in the means between the dominant, contestable and competitive markets than Table 1 which looked at prices. At the beginning of the period examined, there are clear differences between the contestable and dominant markets, with lower profit levels found in the former and significant t differences found between the two in the first two years. In the last two years whilst the differential remains fairly consistent at around 4%, the lower level of margins gained in these years results in t values that are not

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statistically significant. For these two years however, a Mann Whitney test was carried out to compare the difference between the two medians, and found to be statistically significant, with Z values of 2.28 and 2.34 respectively.

As highlighted above, the competitive market is far more difficult to isolate, as competition occurs at the borders of bus territories, hence most of these subsidiaries operate as dominant operators in their strongholds, but compete at the margins. Nevertheless, there is some evidence based on (mean) descriptive statistics that profit margins are lower in competitive markets, but this is very marginal and certainly not true of figures based on median values. It would however be consistent with competition at the borders slightly reducing overall profit levels.

**Efficiency Analysis**

The last of the above hypothesis to be tested is that firms operating in contestable markets have higher efficiency levels. As highlighted above, due to the low number of observations in the competitive market, this section will only consider dominant and contestable markets. Efficiencies were calculated using data envelopment analysis (DEA – see Cooper et al (2000) or REF from applied economics for a full description of the method) for 44 firms. These were firms that had already been used in the first two parts of the analysis for which the relevant data was available. The inputs specified in the DEA were fairly straightforward, as at the most basic level in the production of bus services/trips only two are required – labour and buses. Both figures for each subsidiary are readily available, with the main source again being the Bus Industry Monitor. Specification of an output however is far more difficult. In this case two measures of output have been used in separate DEA specifications; the number of passengers carried and the number of vehicle kilometres produced. This data was obtained directly from the Department for Transport and covers the period 2002 to 2006, which was the most up-to-date date available to the author (after much difficulty due to commercial sensitivity).

Results are presented in Table 3, which are broken down into those based on vehicle kilometres, often referred in DEA terms as measuring (technical) efficiency, and those based on passengers, often referred to in DEA terms as ‘effectiveness’, although in the current context this closely resembles a measure of allocative efficiency. These figures were based on the assumption of constant returns to scale.

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Table 3: Average efficiencies, contestable, dominant and competitive bus companies

	2000	2001	2002	2003	2004	2005
Vehicle Km						
Contestable	55.5%	56.5%	59.1%	62.4%	60.3%	61.2%
Dominant	69.5%	66.7%	70.3%	71.5%	70.4%	71.6%
T Statistic	3.3677	2.7043	3.2736	3.0992	2.7391	3.2135
Prob:	0.0022	0.0113	0.0027	0.0043	0.0104	0.0032
Passengers						
Contestable	67.2%	72.6%	68.3%	64.1%	75.5%	66.3%
Dominant	54.7%	62.0%	59.2%	55.2%	62.9%	60.3%
T Statistic	-2.3026	-1.8118	-1.4788	-1.7521	-2.0358	-1.0295
Prob:	0.0307	0.0831	0.1528	0.0931	0.0534	0.3140

The two sets of results provide an interesting contrast. When vehicle kilometres are used, in all six years presented, dominant firms are found to be significantly more efficient, although some ‘catch up’ did occur during the period, with a 14% difference found at the beginning and a 10% difference at the end. In the carriage of passengers on the other hand, firms operating in contestable markets are generally found to be significantly more efficient – differences are found at least at the 10% level of significance in four of the six years presented. Firms in such markets therefore would seem to be better at targeting services to passengers needs, even although this may come at the cost of technical efficiency. This would also clearly suggest that the passenger to vehicle kilometre ratio is far larger in these firms, and this is indeed found to be the case with an average of 21.5 passengers per vehicle km versus an average of 15.4 for dominant firms. Interestingly, this suggests some form of ‘over-supply’ in dominant markets, an aspect usually identified as a protective measure against new entrants in potentially contestable markets.

In order to complete the analysis, a comparison of scale efficiencies was made. These were calculated as the proportion between efficiencies assessed under the assumption of constant returns to scale and efficiencies assessed under the assumption of variable returns to scale. No significant differences in scale efficiencies was found however for either vehicle kilometre or passenger kilometre specifications, although under both measures major subsidiaries tended to have a slightly higher level of scale efficiency. This would suggest that all efficiency differences are purely as a result of x-inefficiency rather than as a result of operating at different levels of scale.

This analysis, whilst not clearly conclusive, would nevertheless strongly indicate that firms operating in contestable markets are more (allocatively) efficient than firms in dominant markets.

*Contestability in bus markets – evidence from Great Britain***CONCLUSIONS AND CLOSING DISCUSSION**

The only conclusion from the preceding analysis is that across the three measures used there is clear evidence of the contestable market in the British bus industry. This results in lower passenger fares, higher efficiency levels and lower profit margins for the operator. It does appear therefore to provide an ‘efficient’ free market solution to the provision of bus services.

That conclusion however tends to avoid the real issue, which is the extent to which contestability is widespread throughout the whole market. Out of some 105 major bus subsidiaries operating in Britain, only 15 were identified as operating in a contestable market. When expressed in revenue shares, this only represents 8.6% of passenger revenue. Furthermore, this share has been decreasing over time as the process of merger and particularly acquisition has continued into the long run. Thus, whilst there may be evidence of the contestable market in the industry, it can hardly be described as widespread.

A second point of discussion is how this situation has come about. Unlike most other privatisations at the time, no single bus regulatory was set up but rather the industry was regulated like all others by the competition agencies, namely the Office for Fair Trading and the Monopolies and Mergers Commission (and now its successor, the Competition Commission). It was through these bodies, particularly the latter, that competition would be maintained. The research presented in this paper suggests that if this had been successful, then the outcomes in terms of lower fares, improving efficiency and better meeting consumers needs, may have been achieved. In other words, whilst competition in the market may not be possible due to violation of the assumptions of perfect competition, competition for the market, based on free market rather than Demsetz principles, should be attainable if the competition authorities are able to maintain a competitive industry.

The British experience would tend to suggest however that such a position is simply unattainable, as the market is far stronger than the regulatory bodies – regulation, after all, would not be generally referred to as a ‘second best’ solution without good reason. Cowie (2009) has also suggested that as the level of competition increases, from for example national to international, then lower levels in that hierarchy become far less competitive. Thus whilst the move towards a single European market in bus services would increase competition across the EU, it will lead to a reduction in competition within individual Member States.

Whilst there are many potential benefits in the free market provision of bus services, due to market imperfections these will always remain unrealised. The only ‘sensible’ model of introducing contestability therefore is in the form of Demsetz competition through regulation, where by and large the strategic and tactical levels remain the preserve of the public sector, and the operational level is maintained by the private sector. Variations of that basic model do exist however, and whether it is the ‘best’ way of providing bus services, or whether some form of negotiated contracts may be a better approach, is a whole other issue.

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