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BIG AND SMALL IS BEAUTIFUL: THE EMERGING ORGANISATION OF THE PAN-EUROPEAN BUS INDUSTRY

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Abstract

Conventional wisdom has suggested that the urban bus industry exhibits constant returns to scale. Why then do bus companies aspire to be big? An operating cost model for European bus companies indicates increasing returns up to a fleet size of around 100 vehicles and decreasing returns when fleet size exceeds around 300 vehicles. In cost terms, there seem to be some advantages in being relatively small. However, there are a number of reasons to suggest that in demand terms there are advantages in being big. Leading edge bus companies are trying to achieve the best of both worlds by being big but also by having a decentralised organisation that replicates some of the advantages of being small.

INTRODUCTION

Conventional wisdom has suggested that the urban bus industry exhibits constant returns to scale. However, where bus markets are free to agglomerate they appear to do so. The aim of this paper is to investigate this paradox. This is done as follows. In the rest of this section some evidence on economies of scale in the bus industry is reviewed. Some recent trends in the British and European urban bus markets are also examined. In the following section, some econometric work is undertaken to determine whether there are cost economies of scale. Then work on demand side economies of scale is reviewed. Lastly, some conclusions are drawn with respect to the future of the pan-European bus industry.

Evidence on Economies of Scale in the Urban Bus Industry

The standard assumption has been that the bus industry has constant returns to scale with respect to fleet size (see, for example, Nash, 1982). This was broadly supported by early cost studies in the UK (Lee *et al* 1970) and the US (Miller, 1970), although Wabe *et al* (1975) found some evidence of diseconomies of scale. Nash concludes that:

"at best, large fleet sizes offers no significant cost savings (although it may permit other advantages such as better marketing and co-ordination of services) ...this should not be taken to mean that there are no economies of scale with respect to the size of individual traffic flows ...higher traffic levels on a particular route permit some combination of large vehicles, higher load factors and better services. Moreover, the role of indivisibilities means that spare capacity on existing services is common; quite often, the marginal cost of carrying additional passengers may be virtually zero".

A review of the then available evidence by Berechman *et al* (1985) produced more mixed results. A useful distinction was made between two types of output: intermediate output (usually vehicle kms); and final output (usually passenger kms). Where final output was the key measure, there was some evidence for increasing returns to scale suggesting demand side economies. Where intermediate output was used, the broad picture was consistent with constant returns but with some evidence of increasing returns for small firms and decreasing returns for large firms. However, they also pointed out that results depend on the functional form specified, the types of explanatory variables used and the types of data used. A preference for generalised cost functions such as the translog was expressed.

Berechman (1993) provides a more up-to-date review of transit cost elasticities and he reports on nine applications of translog models including five European examples (DeBorger covering Belgium, 1984; Pettreto *et al* covering Italy, 1984; Button *et al* covering Great Britain, 1985; Gathon covering Europe, 1989; and de Rus covering Spain, 1989). He finds short run economies of capital stock utilisation, related to excess vehicle capacity, and some evidence of economies of scope. He also finds evidence of large scale economies of traffic density and constant scale economies. A number of other studies have been undertaken including those of Wunsch covering Europe, 1996a; Jorgensen *et al* covering Norway, 1995; Kerstens covering France, 1995; Fazioli *et al* covering Italy, 1993; Filipinni *et al* covering Switzerland, 1992 and Talvitie *et al* covering Finland, 1989. These studies are broadly consistent with the findings of Berechman suggesting constant returns to scale over a wide range of vehicle kms and fleet sizes, but with a suggestion of increasing returns for very small firms and decreasing returns for very large firms. This suggests that the industry exhibits a U-shaped average cost curve all be it with an elongated, flat bottom.

Recent Trends in Bus Industry Organisation

The most dramatic reforms in bus industry organisation in Europe have probably occurred in Great Britain. As a result of the 1985 Transport Act, the State owned National Bus Company was split into some 70 subsidiaries which were sold to the private sector between 1986 and 1988. Subsequently, the State owned Scottish Bus Group and London Buses were split into smaller companies (10 and 11 respectively) and privatised between 1990 and 1991 and 1993 and 1995 respectively. The 1985 Transport Act also commercialised the Municipal (Local Authority) sector. There were over 50 such companies in 1986, of which only around 15 remained in public ownership some 10 years later. The up-shot of these reforms was that in the late 1980s the local bus industry in Britain was probably in its most fragmented state since the 1930s. However, between 1988 and 1997 there have been over 180 major takeovers in the local bus industry (Transport Advisory Service, 1997). Table 1 shows that between 1989 and 1997, the share of the market (in terms of turnover) accounted by the top three private sector companies has increased from 11% to 53% and the market share of the top 5 companies has grown from 13% to 66%. Initially, this growth was driven by privatisation, with the publicly owned share of the market decreasing from 52% in 1989 to 7% in 1994 (and has remained fairly static thereafter). In recent years, the growth has been due to acquisitions from smaller groups, whose share peaked at 9% in 1992 but was down to 3% in 1997, and from Management Buy-Outs (MBOs) and Employee Share Ownership Programmes (ESOPs), whose share peaked at 29% in 1993 but was down to 11% in 1997. One feature of the reorganisation of the British bus industry has been the transient nature of MBOs and ESOPs (see Wright *et al* 1992) which may have been exacerbated by the nature of the bus privatisation process and of financial institutions in Britain.

There is thus strong evidence that the bus industry in Britain is re-agglomerating. Similar data for other countries and for other time periods is difficult to obtain but there is anecdotal evidence that these trends are occurring in other places and have occurred in other time periods. In France, the bus market is dominated by three major companies (CGE, Via and Transdev), whilst in Sweden a similar picture of market domination is emerging. In smaller countries, there may be a concern that the market can only support one network operator. In Britain, in the 1930s there was a rapid period of market concentration in which two major groups emerged outside the municipal areas: Thomas Tilling and British Electric Traction (Hibbs, 1968).

Moreover, with the Single European Market there is no longer any reason why this process should be constrained by national boundaries. The Transport Advisory Service (1997) report that:

"Stagecoach, British Bus (now Cowie*), Southern Vectis, National Express, FirstBus and Transit Holdings* (now Stagecoach) *have all shown interest in overseas operations both in Europe and farther afield - including Africa, Hong Kong, Australasia and South America. Further developments in this field may certainly be expected."* (Comments in parentheses inserted by the current author).

Table 1: Changes in Market Share by Turnover in the British Bus Industry Since 1989 (%)

	1989	1990	1991	1992	1993	1994	1995	1996	1997
Firstbus	3.7	5.5	6.3	6.2	6.8	12.8	12.8	19.8	21.6
Stagecoach	3.9	3.7	4.9	4.9	6.9	13.4	13.4	16.1	16.0
Cowie	3.4	4.1	4.0	4.0	4.5	11.4	13.2	14.9	14.8
Big Three	**11.0**	**13.3**	**15.2**	**15.1**	**18.2**	**37.6**	**39.4**	**50.8**	**52.5**
Go-Ahead	1.7	1.7	1.7	1.7	1.7	4.3	4.3	6.2	6.4
Nat. Express	0.0	0.0	6.0	5.9	5.9	7.7	7.7	5.2	5.9
Big Five	**12.7**	**15.0**	**22.9**	**22.7**	**25.8**	**49.6**	**51.4**	**62.2**	**65.8**
Small Groups	8.1	8.9	9.1	9.2	7.1	5.5	4.3	2.6	2.7
ESOPs/MBOs	15.5	18.3	21.0	21.0	28.7	23.0	22.1	13.8	11.1
Independents	12.0	12.2	12.9	13.9	14.1	14.6	14.6	14.2	14.6
Public	51.6	45.8	34.2	33.3	24.4	7.5	7.5	7.2	6.8

A pioneer in the emergence of a pan-European and indeed global bus industry is Stagecoach Holdings plc. The company has had transport interests in Malawi (United Transport 1989-1997), Canada (Gray Lines 1990-1992) and China/Hong Kong (Speedybus 1988-1993). Currently, the company has transport operations in Kenya (Kenya Bus Nairobi and Mombasa, acquired in 1991), New Zealand (Wellington City Transport, acquired 1992), Portugal (the Cascais and Sintra operations of Rodoviaria de Lisboa, acquired in 1996) and Sweden (Swebus, also acquired in 1996 along with its Danish, Finnish and Norwegian subsidiaries, the latter of which was immediately sold on). The companies overseas bus operations employ 12,000 people, operate 4,500 buses and have a turnover of £340 million. The corresponding figures for its UK operations are 17,000, 7,500 and £520 million (Cox, 1997).

The other main British player in the European bus market to date is the National Express Group (NEG) plc. In July 1993, Dutch based Eurolines Nederlands BV was acquired giving NEG control of a second major share of the Eurolines consortium, the main international express coach operator in Europe. In May 1996, Fregata Travel of Poland was purchased and a network of express coach services launched. In mid 1997, a partnership was formed with Norwegian group Schoyen, to look for acquisitions in Scandinavia and Germany. The company is registered in the Netherlands and 63% of shares are owned by NEG.

A number of other bus companies, in both Britain and on the continent, seem prepared to follow Stagecoach and National Express's lead. In particular, the big three French companies are known to be looking for European acquisitions with one of them having recently bought into the British market.

COST ANALYSIS

One way we may get an idea of whether it is beneficial for bus companies to be small or large is to undertake cost analyses. Such work has recently been undertaken for DGVII (Transport) of the European Commission by the ISOTOPE (Improved Structure and Organization for Urban Transport Operations of Passengers in Europe) consortium (European Commission, 1997). One aim of this work was to examine the relationship between costs and outputs, input prices and measures of organisational and regulatory factors for the urban bus market. This was based on combining the 188 observations from the ISOTOPE city database with 56 observations from the database compiled by Wunsch (1996A,B). This gave a combined data set of 244 cross sectional observations. The variables considered were: operating cost, vehicle kilometres, line kilometres, wage rate and vehicle price. In the event only 49 observations contained consistent data on all five variables at the firm level, with this figure increasing to 75 observations if only four variables (excluding line kilometres) were considered. This is because our data set is affected by both missing and extreme values.

A correlation matrix for the independent variables was examined. This indicated that there were no problems of multicollinearity. More details of this work are provided by Perez-Perez, 1996. In line with the recommendations of Berechman *et al* (op cit.) a translog model of the following form was estimated:

$$\ln C = \alpha_o + \alpha_v \ln VK + \alpha_l \ln LK + \beta_l \ln P_l + \beta_k \ln P_k + \frac{1}{2}\delta_{vv}(\ln VK)^2 + \frac{1}{2}\delta_{11}(\ln LK)^2 + \frac{1}{2}\gamma_{11}(\ln P_l)^2 + \frac{1}{2}\gamma_{kk}(\ln P_k)^2 + \gamma_{lk} \ln P_l \ln P_k + \phi_{vl} \ln VK \ln LK + \rho_{v1} \ln VK \ln P_l + \rho_{vk} \ln VK \ln P_k + \rho_{11} \ln LK \ln P_1 + \rho_{lk} \ln LK \ln P_k + \psi DV$$

where

C	=	Operating cost per annum
VK	=	Vehicle kilometres per annum
LK	=	Line kilometres per annum
P_l	=	Price of labour
P_k	=	Price of vehicles
DV	=	Dummy Variable (= 1 if city in Great Britain, 0 otherwise)

A number of other explanatory variables were tested most noticeably those related to city size but they did not prove to be statistically significant even in their main effects. The following models were also tested:

(I) No restrictions

(II) Homogeneity of degree one in input prices

$$\beta_l + \beta_k = 1; \gamma_{11} + \gamma_{kk} = 0; \gamma_{lk} = 0; \rho_{vl} + \rho_{vk} = 0; \rho_{11} + \rho_{lk} = 0$$

(III) Homotheticity (separability of inputs from outputs)

$$\rho_{vl} = \rho_{vk} = \rho_{11} = \rho_{lk} = 0$$

(IV) Linear separability test

$$\gamma_{lk} = 0$$

(V) Homogeneity and unitary elasticity of substitution (Cobb-Douglas)

$$\delta_{vv} = \delta_{ll} = 0; \gamma_{ll} = \gamma_{kk} = \gamma_{lk} = 0; \phi_{vl} = 0; \rho_{vl} = \rho_{vk} = \rho_{u} = \rho_{lk} = 0$$

Statistical tests, based on the log-likelihood ratios, supported models II and IV. As model IV is a special case of model II, model II was used for further analysis. This model is given by Table 2. One important finding was that we were unable to support a hypothesis of Cobb-Douglas production technology - a finding which is consistent with other studies (see, for example, Berechman, 1993, Table 5.2).

Table 2: Preferred Translog Model of Operating Costs

	Parameter Value	Standard Error
α_o	-13.276	19.67*
α_v	2.91	2.63*
α_l	-3.92	1.42
β_l	-1.45	2.07*
β_k	2.45	2.07*
δ_{vv}	-0.178	0.180*
δ_{ll}	-0.013	0.011*
γ_{ll}	-0.030	0.119*
γ_{kk}	0.030	0.119*
ϕ_{vl}	0.232	0.087
ρ_{vl}	0.236	0.135*
ρ_{vk}	-0.236	0.135*
ρ_{ll}	-0.336	0.088
ρ_{lk}	0.336	0.088
ψ	-0.829	0.269

R^2 0.984 Adjusted R^2 0.980
Log Likelihood 11.27 * Not significant at the 5% level

From Table 2, it should be noted that of the 15 parameter values estimated, only five are significant at the 5% level although this reflects the small number of degrees of freedom available. However, the model exhibits excellent goodness of fit, with 98% of variation being explained.

From this model, we can estimate the returns to density as:

$$RTD = \left[\frac{\partial \ln C}{\partial \ln VK}\right]^{-1} = 0.86 < 1$$

This suggests that there are diseconomies of density i.e. decreasing returns to density. This may occur because the densest networks are the most congested. This could be due to external factors, in particular speed. This variable was tested but was insignificant and reduced the plausibility of the overall model.

We can also estimate the returns to scale as:

$$RTS = \left[\frac{\partial \ln C}{\partial \ln VK} + \frac{\partial \ln C}{\partial \ln LK}\right]^{-1} = 0.71 < 1$$

This suggests that there are diseconomies of scale i.e. decreasing returns to scale. This may arise because as firms get larger they become more difficult to manage efficiently and become prone to x-inefficiency.

Our results therefore suggest that, on average, European bus operators produce too many vehicle kilometres and too many line kilometres, but any reduction in vehicle kilometres should be greater than the reduction of line kilometres. However, our results suggest that size is not too important. Given the wide confidence intervals around the parameter values, both our RTD and RTS estimates are insignificantly different from one. We are unable to reject the hypothesis of constant returns to scale with this model. It should be noted that with a slightly different version of the above model, we omitted line kilometres as a variable and calculated a returns to scale with respect to vehicle kms of 0.33 and with respect to passengers of 0.74. This model again exhibits decreasing returns to scale, particularly where vehicle kms is the output.

We were able to calculate the Allen's partial elasticity of substitution from this model using the following general formulae:

$$\sigma_{ij} = \frac{\gamma_{ij} + S_i S_j}{S_i S_j} \qquad and \qquad \sigma_{ii} = \frac{\gamma_{ij} + S_i^2 - S_i}{S_i^2}$$

Assuming S_l (labour's share of costs) = 0.7, and S_k (capital's share of costs) = 0.3 then the following results are obtained:

$$\sigma_{lk} = \sigma_{kl} = 1$$

$$\sigma_{ll} = -0.490$$

$$\sigma_{kk} = -0.600$$

The own and cross price elasticities of factor demand can then be estimated using the general formula:

$$E_{ij} = \sigma_{ij} S_i$$

This gives the following results:

$$E_{lk} = 0.7, E_{kl} = 0.3, E_{u} = -0.343, E_{kk} = -0.180$$

In contrast to some, but by no means all, of the studies summarised by Berechman (op. cit., Table 5.3), we find relatively strong substitutability between capital and labour. This may reflect different manning arrangements and the use of different sized vehicles. We also find the demand for labour to be relatively inelastic, but greater (in absolute terms) than the findings summarised by Berechman (op. cit., Table 5.4) who found an average elasticity of -0.10. Similarly, we find capital to be relatively inelastic, but in this case our results are similar to the mean of the elasticities studied by Berechman (-0.2).

One other important finding is the dummy variable parameter estimates. These were tested for individual countries and groups of countries. The only dummy variable which had a significant coefficient was that for Great Britain which suggested that, all other things being equal, operating

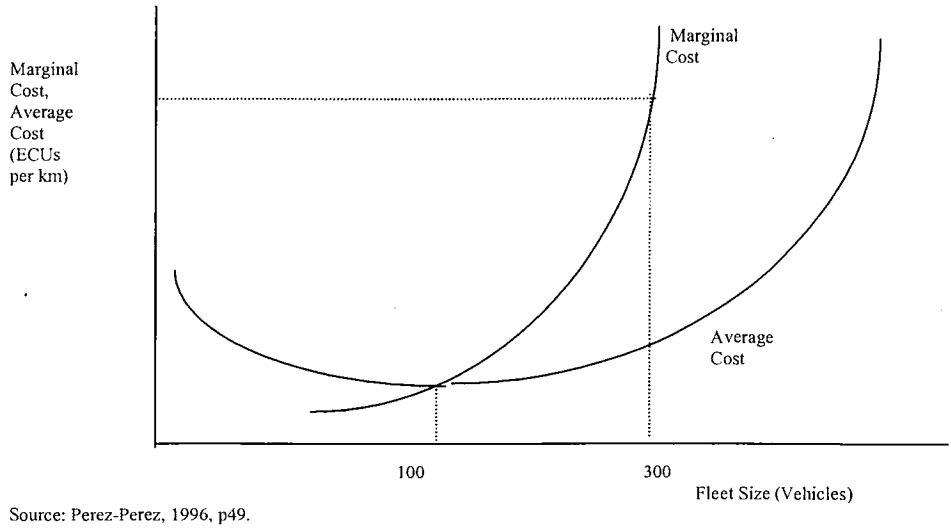
costs for bus systems in Great Britain are 56% below those of the rest of Europe. This seems a large difference until it is noted that operating costs per bus km have decreased by 47% in Great Britain outside London since deregulation (Department of Transport, 1997). This suggests that in the emerging pan-European bus industry, British bus companies, or their imitators, may have a marked competitive advantage.

It would have been possible to derive total factor productivity indices in the manner suggested by Talvitie *et al* Sikow, 1992 or Preston, 1997. However, there were concerns that the results would be unduly affected by data quality and it was therefore decided not to undertake analysis of this type.

Given the conclusions about data quality made above, it would obviously be dangerous to draw definitive conclusions but there does seem to be a suggestion that cost efficiency reduces with operator size. Our calculations indicate that the mean fleet size in our sample is around 300 vehicles. There is evidence to show that there are only limited economies of scale in the production of passenger transport services by bus. While economies of scale exist at relatively small production scales (up to 50 buses), these seem most often to be exhausted at around 100 buses (see Figure 1). This is at the bottom end of the optimal range postulated by Berechman (op. cit.) of between 100 and 500 vehicles. The extent to which such economies of scale can be realised depend on particular local market situations (network size and shape). In one of the 30 Monopolies and Mergers Commission's (MMC) enquiries into the British bus industry since 1989 (see Preston, 1991 and Bulman, 1997 for details), operator SBH asserted that there were substantial cost savings to be achieved through stock and spare part rationalisation (MMC, 1995A). Bulman estimated these savings to be equivalent to an amount in excess of £60 million, although this was a contiguous merger in which one operator had an ageing fleet which would benefit from renewal.

Besides this type of economies of scale which are related to production with given inputs, there are other economies related to decreasing input prices with increasing production size (vehicle price, fuel price, etc.). In a recent report (OFT, 1997), it is claimed that the large bus group can purchase vehicles at prices 20% below those offered to small companies. This results in the large bus groups having younger bus fleets that are less expensive in terms of maintenance and other operating costs. Bus operators themselves disagree on this point. Go-Ahead have claimed that a fleet of 200 vehicles is of sufficient size to achieve advantageous procurement terms (MMC 1996), whereas Stagecoach argued that scale economies in procurement costs, costs of capital and insurance provision could offset labour cost disadvantages compared to small units of 20-25% (MMC, 1995b). Given labour costs are typically 70% of total costs in the bus industry, this amounts to a 14-18% cost advantage.

The difference between the first type of economies of scale (production) and the second type (input price) is that the first one requires a bundled production, i.e. production at one place, while the second type of economies of scale can be achieved even if production is not at one place, i.e. non contiguous - scattered all over a country or even internationally.



Source: Perez-Perez, 1996, p49.

Figure 1 European Bus Average and Marginal Cost

Reviewing recent evidence, the MMC's chief economist (Sumner, 1997) has postulated that bus services have an inverted U-shaped average cost curve, with both very small and very large companies having cost advantages over medium sized firms. This model concurs with the maturing industry structure in Britain in that large holding companies dominate the industry but small independents have a steadily growing market share (see Table 1). This view does not of course concur with the evidence presented in Figure 1. Our data did not include many very large nor very small firms. Moreover it controls for variations in input prices. However, it may be that the cost curve for the market as a whole is comprised of a series of U-shaped cost curves for firms of different sizes, the envelope of which results in an inverted U-shaped cost curve.

DEMAND SIDE FACTORS

The above suggests that reforms that fragment the bus industry, such as competitive tendering at a route level, would not necessarily reduce cost efficiency and might promote it. Similarly, restructuring of publicly owned bus companies might be best undertaken in units of 100 vehicles or so (i.e. at the depot level).

The consequences of this production structure is that passenger transport companies tend to evolve towards the formation of large groups of relatively small subsidiary companies, which in turn are organised so that individual depots act as profit centres. For example, Stagecoach currently has 22 subsidiary companies in Britain and 5 abroad (including the former Transit Holding's Australian interests). Similar structures can be observed emerging in most countries where competition has been introduced (Sweden, Denmark, France and Great Britain). Such re-agglomerations may also be for a number of demand-side reasons that our simplistic cost model has not taken into account:

- Larger companies can spread fixed costs (e.g. marketing, administration, training) over a greater range of outputs. SBH argued that there were important economies in terms of advertising (MMC, 1995a). An alternative explanation of this phenomenon, is that transaction costs can be reduced for large firms as key activities are internalised (Williamson, 1987).

- Larger companies may, through the long purse hypothesis, be better able to withstand competition and be more able to engage in predation. Bulman (1997) argues that increases in market power lead to consumer welfare loss as revenue attributed to a set of services has an elasticity of 0.08 with respect to an operator's total revenue. In other words, all other things being equal, if an operator on a route is displaced by another operator on that route double the incumbent's size total revenue may be expected to increase by 8%. Assuming a fare elasticity of -0.3, this would be equivalent to a fare increase of almost 12%.

- Large companies may offer benefits in terms of co-ordinated services, discounted but branded ticketing (travelcards, multi-journey tickets and return fares) and integrated information (see, for example, Mackie *et al* 1995). This may result in cost advantages where final output (i.e. passenger km) is the measure used. In the one case investigated in detail by Bulman, these network benefits outweighed the losses of welfare due to increased market power.

- Operations by a small operator at a lower service frequency than is offered by the large incumbent, which appears to typify many examples of on-the-road competition, usually means that the small operator has a less than proportionate share of the market. Suppose bus demand is spread uniformly across time and a large operator has eight buses an hour and a small operator two buses an hour. By equal spacing of its services and thus dominating the timetable, the large operator can achieve an 87.5% share of the market rather than a proportionate 80% share of the market. It is only worth the large operator accommodating the small operator if the service elasticity is greater than 0.4, which is unlikely to be the case at such high frequencies. This timetable dominance may be exacerbated if the operators do not share terminal facilities (i.e. stops and stands at bus stations) and there is branded ticketing.

- Large companies may be the main beneficiaries of experience effects (Button, 1988) related to the difficulties in getting the product known in the market place as bus use is an experience good and the economies of experience that a skilled management team possess. Professor Michael Beesley has referred to this latter phenomenon as a problem of entrepreneurial scarcity - there are simply not enough Brian Souters (the charismatic chairman of Stagecoach) to go round.

- In a declining industry, which the bus industry is in Britain, with demand down by over a half since the industry's heyday in the early 1950s, the main source of growth is through acquisitions. The only other source of growth is through diversification. This is another noticeable trend in the bus industry, with diversification into heavy and light rail particularly important. For example, Stagecoach have acquired two former British Rail passenger franchises (South West Trains and the Island Line), a rail rolling stock leasing company (Porterbrook) and a light rail system (Sheffield Supertram). In addition, Stagecoach have a 49% stake in Virgin Rail (the operator of the West Coast and Cross Country rail franchises) and own Prestwick airport. Of the rest of the big five, the Go-Ahead Group has an interest in two rail franchises, as do FirstBus, who have also acquired an airport and interests in light rail. Similarly, the National Express Group has five rail franchises, two airports and interests in light rail, whilst the Cowie Group have some light rail interests.

What the above suggests is that there is little evidence of technological returns to scale in the European bus industry and some suggestion that large size may promote x-inefficiency, particularly if accompanied by public ownership. However, there is evidence for economies of scale due to price effects related to purchasing power and contractual financial effects related to spreading managerial costs. Where passenger kms is the measure of output, this is exacerbated by a series of demand complementarities related to the production of a network of services. In empirical studies, these demand side returns to scale may be obscured by increased market power.

CONCLUSIONS

Schumacher (1973) advocated that 'small is beautiful' and this seemed to influence the organisational reforms of the British bus industry in the 1980s. However, we have seen that in Britain the industry has re-agglomerated so that big firms have quickly re-emerged. Similar trends have emerged in other European countries and there is the prospect that we are witnessing the genesis of some pan-European and indeed global bus operations. These trends are consistent with the globalisation of economic activity and the emergence of flexible, post-Fordist production techniques (Dicken, 1992, Gertler, 1988).

Why are these trends emerging? On the cost side, the available evidence suggests that size does not really matter, although there may be some advantages of being relatively small in terms of labour prices and some advantages of being big in terms of the price of fuel, vehicles and capital. On the demand side, there may be more marked advantages of being big, although further empirical work is particularly required here. The main advantages may be related to ticketing, marketing and control of the timetabling process. What leading edge companies may be attempting is to organise themselves so as to be big and small at the same time in the belief that big and small is beautiful. This is done by adopting a flexible multi-divisional organisational form in which as much power as possible is devolved to the smallest free standing unit, which in the bus industry is usually the depot, which is often around the 100 vehicles mark. If this analysis is correct, then as the European bus industry is freed up, for example by the Citizens' Network's proposals for comprehensive tendering, then we may see a substantial re-structuring of the industry. British, and to a certain extent French, based public transport companies are likely to provide the vanguard for these pan-European developments.

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