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Gwilliam, K.M. (1987) Setting the market free: deregulation of the bus industry. 4th Smeed Memorial Lecture, 29th October 1987. Working Paper. Institute of Transport Studies, University of Leeds , Leeds, UK.

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### **Published paper**

Gwilliam, K.M. (1987) *Setting the Market Free: Deregulation of the Bus Industry*. 4<sup>th</sup> Smeed Memorial Lecture, 29<sup>th</sup> October 1987. Institute of Transport Studies, University of Leeds. Working Paper 259

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November 1987

SETTING THE MARKET FREE  
DEREGULATION OF THE BUS INDUSTRY

4th Smeed Memorial Lecture, 29 October 1987,  
given at University College London

K M Gwilliam

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## SETTING THE MARKET FREE; DEREGULATION OF THE BUS INDUSTRY

Though he was not himself an economist, Reuben Smeed is well known to transport economists as the chairman of a committee which, in the early sixties, examined the use of congestion charges to obtain a rational use of scarce urban road capacity.(1) The Smeed report showed that in the absence of a proper road congestion pricing system there would be an excessive use of the private car, and, by implication, a sub optimum level of use of public transport. Although, to the best of my knowledge, Reuben never turned his mind to the issues of public transport regulation, the ready acceptance of public transport regulation and subsidy as second best proxies for road pricing in the late sixties and seventies was, I believe, founded on the Smeed logic.

The regulation of public transport has, of course, other roots. In the nineteen twenties and thirties there was a belief that a free market would yield an excessive supply with the result that load factors would be low and the average cost per passenger carried unduly high. This was the basis for entry regulation. In the sixties and seventies there also developed a concern that in the absence of control some categories of person - the old, the young and the infirm, as well as those too poor to own cars - would suffer a progressive immiseration in the process of growth of incomes and car ownership. This was the basis for using the price and entry controls to enforce the internal cross-subsidy of unremunerative services. Hence from 1930 to 1980 the public interest theory of regulation - the idea that regulation could be framed so as to promote the public interest - dominated political and economic thinking about local bus services.

The adverse effects of regulation have also long been recognised. In the early seventies A.E.Kahn, later to become famous as the President of the U.S. Civil Aeronautics Board, spelled out the dangers of slackness in management, exploitation of the monopoly power of organised labour, overinvestment, and lack of innovation flourishing behind a statutory monopoly barrier.(2) In Britain, in the same vein, the 1984 White Paper "Buses"(3) argued that half a century of regulation had led to excessively high costs, inadequate innovation and a structure of internal cross-subsidy which was both inequitable (as it involved the poor subsidising the better off) and inefficient (as it involved resources being devoted to the maintenance of services for which there was little current demand or development potential).

The dilemma of regulation was thus that whilst it inevitably had adverse effects on the internal efficiency of regulated firms it still appeared necessary in order to secure an efficient structure of production and allocation of resources. As the political balance shifted towards emphasising the operational inefficiency of regulated regimes, there developed a desire to find a theoretical escape from the need to regulate.

The Gordian knot finally appeared to be broken in the early eighties with the development of the theory of contestable markets. The theory was most concisely stated by Professor W.J. Baumol in his 1982 presidential address to the American Economic Association. (4) He argued that, so long as there are no 'sunk costs' involved in entering the market, and there is absolutely no constraint on the freedom of entry, then only internally efficient firms, of the optimum scale and structure, with an optimal product mix and no cross-subsidy can survive. Hence the task of government should not be to attempt to determine the optimal structure of production and to protect it but to ensure that there are no constraints on free entry to limit the credibility of the competitive threat. If the conditions of contestability obtain, he argued, even monopolists must behave as though they were subject to actual competition in order to avoid attracting new entry which would destroy them.

The 1984 Buses White paper argued that the bus industry fits this bill well and that most of the problems of the industry would be overcome so long as the statutory restrictions on entry were eliminated. That philosophy was implemented in the 1985 Transport Act which combined the abolition of regulation on entry to the stage bus market with privatisation and fragmentation of the National Bus Company and the reconstitution of the municipally owned companies so that they had no initial advantage in the new competitive framework. Any operator able to satisfy the remaining quality controls could offer whatever service he chose on a commercial basis. Local authorities retained the power to supplement the commercially provided services if they felt that necessary on social grounds, but only on the basis of competitive tendering. Competition, both on the road and in the tendering process was thus to be the order of the day. The market was to be set free.

The White Paper, and the Act which followed, have been the subject of much debate (5), one of the most contentious issues of which has been whether the bus market is truly contestable. Why, it may be asked, should so much importance attach to so arcane an issue? The reason is this. If the market is truly contestable then, to paraphrase Voltaire, "all is for the best in the best of possible (i.e. completely free) worlds." Most of the economic or technical opposition to deregulation collapses. If the market does not possess all of the desirable characteristics of perfect contestability we may still need to concern ourselves with both the structure of the market and with the processes of competition if the best is to be obtained from deregulation.

My lecture this evening therefore addresses four related issues;

- (i) What a priori evidence is there that the bus market is highly contestable, and how well have the provisions of the Act promoted contestability?
- (ii) Is market contestability a sufficient condition for

welfare maximisation?

- (iii) What additional light does the behaviour of firms during the first year of deregulation shed on these issues?
- (iv) What morals for the market control mechanisms would I draw from the analysis?

1. Is the bus market inherently contestable?

(a) The technological conditions

According to Baumol, the essential technological requirement for a market to be contestable is that there are no sunk costs; that is that any investment necessary in order to enter the market can be fully recouped on exit. For many products the necessary capital equipment is fixed and highly specific; once set in place cannot easily be used for any other purpose or resold. In such circumstances the irreconcilability of fixed cost with the requirement of zero sunk cost makes contestability theory inapplicable.

In bus transport, however, the essential capital asset is the vehicle, which is by its nature versatile. It can serve different geographic markets. It may be cascaded from more to less demanding uses and a lively second hand market may provide the alternative escape of selling the asset and quitting the bus market altogether. The second hand market also offers a route to entry despite some initial attempts by large operators to stifle the flow of vehicles into the second hand bus market and hence create a barrier to entry. The basic technological requirements for contestability thus appear to obtain in the bus industry.

There may be other types of sunk cost however. Because transport is a service which cannot be stored potential passengers must be informed before production starts. That implies some promotional expenses which are inevitably sunk and also that there may be initial losses to be sustained in the process of developing market awareness. On already densely served routes these costs may be small as the new entrant may simply compete for the randomly arriving passenger; in effect he takes advantage of the incumbents existing marketing information. On thinner routes a more positive marketing effort may be required. Uncertainty concerning the magnitude of these costs may be sufficient to inhibit small new entrants.

Contestability theory also assumes the possibility of instant entry at optimal scale. But this may not be easy to achieve if there is a dominant incumbent offering an extensive, high frequency network using travelcards and other operator specific multi-journey ticketing schemes to secure loyalty. Such devices may give the incumbent some protection against piecemeal competition. The implication of this would seem to be that the maintenance of area wide, rather than company specific,

multijourney ticketing schemes may be in the best interest of the travelling public, despite the fact that it implies a wider residual role for the local authority.

(b) The institutional conditions.

Institutionally, contestability theory would suggest that so long as there is no statutory constraint on entry the initial market structure does not matter as incumbents have no alternative, in the interests of survival, but to behave in ways which are in the customers best interest. The historic evidence - of competitive practices in the unregulated markets of the late twenties and the long period of instability in the Hereford city trial area of the early eighties, - belies the applicability of that analysis to the bus industry. As part of the deregulation package attention was therefore paid to the ownership, size, and internal structure of incumbents.

(i) Ownership,

It was deemed necessary to reconstitute municipally owned firms as normal enterprises under Companies Act legislation, on terms which did not unduly favour them in the market, and to prohibit any direct subsidy being paid to them by the local authority owner to keep them solvent.

It has subsequently been argued that municipally owned companies retain some unfair advantage. They do not have to pay a dividend, and if they have inherited a reasonably modern fleet of vehicles may be able to remain solvent for a long period of unprofitable operation. New entrants, especially if they obtain equipment on leases which effectively convert their capital charges into an operating cost, may thus find themselves at some disadvantage, despite apparently being the lower cost operator.

(ii) Company size,

Deregulation was accompanied by fragmentation of the National Bus Company, with initial rules for the sale of the fragmented NBC companies which did not permit purchase by any other operator in the area of the company being sold. There are two quite different justifications which might be offered for this. Firstly, fragmentation might be seen as one way of ensuring that there were enough experienced independent operators in existence for the initial competitive threat to be effective. Secondly, there might be a fear that the continued existence of a large dominant operator would be a situation in which cross-subsidy, and the protection of dominance by predatory practice would flourish. The first of these arguments is consistent with a belief that the bus market is inherently contestable, the second is not.

(iii) Internal structure,

One potential distortion of a regulated system, elegantly demonstrated in theory by Averch and Johnson (6), is the inducement to excessive expansion of the capital base and to an uneconomic level of vertical integration. The converse of this, argued by Beesley and Glaister(7), is that deregulation of an inherently contestable market makes possible the emergence of new contractual arrangements and forms of organisation which redefine the boundaries of the firm to the advantage of the consumer. In the sale of NBC assets a number of different types of package have accordingly been created, partly in response to market demand.

(c) External relationships

As part of the deregulation package some local authorities have become both the customer for tendered services and the sole shareholder of one of the competing contractors. The reconstitution of the municipally owned companies as normal commercial enterprises, the embargo on direct subsidy from the owning authority, and the requirement of the authorities not to show preference in the allocation of tenders were intended to be the basis on which the two apparently conflicting interests of the local authorities were to be reconciled. In the metropolitan areas the planning function of the PTE's have been divorced from operations, in two separate organisations with differing, and often conflicting professional objectives.

At the political level the distinction is not so clear. The local authority or PTA can decide what supplementation of the commercial network to provide, albeit within a budget which is limited by statute. It can also specify fares for tendered services, though again subject to the legal obligation not to act in such a way as to restrict competition. It has been alleged that the local authority can still favour the municipally owned operator in a limited way by the form in which tender invitations are specified, and by the use of minimum subsidy tenders (which give an advantage to the incumbent company which knows the current revenue levels) But it is not able to retain the kind of comprehensive control which some authorities had previously exercised.

In contrast, as sole shareholder of the company it is able to determine both the general objectives of the company and the level of discretion which is left to the Board of Directors in day to day management. The temptation to use those much less obviously restricted powers to try to retain traditional networks, fare levels, operating conditions, and the like is great. Of course, if the market is highly contestable such a strategy would be unsustainable and could lead to the ultimate bankruptcy of the company. If not, however, some of the potential benefits of deregulation might be lost as the authority attempts to favour its own company.

## 2. Is contestability sufficient for welfare maximisation?

Let us now suppose that our doubts concerning the degree of market contestability are unfounded. Would we then be justified in assuming that market processes would automatically produce an outcome in the consumers best interest?

The issue here is that the theory of contestable markets ignores many of the dimensions of market failure which underpin the traditional case for regulation. It assumes that only welfare optimal competitive practices are sustainable and that user cost economies of scale or scope, external effects such as congestion and income distribution effects are absent or can be handled by other, more direct, action. Let us examine these issues.

### (a) Competitive practices

In contestable markets any successful competitive or competition pre-empting action is assumed to be in the public interest. In the bus industry, in contrast, there has been a traditional concern that the processes of commercial competition may actually involve practices, such as racing to stops, running just ahead of competitors scheduled buses, hanging back, turning short and missing stops, that are both antisocial and uneconomic.

Foster and Golay (8) argue that most such "curious old practices" are in fact either consistent with equilibrium and in the public interest (for example missing stops when the bus is full or near full and turning short when the bus is empty and there is a demand for service in the opposite direction) or can be adequately controlled by the requirements of the legislation (e.g. maintaining published schedules which will ensure that competitors iterate rapidly to a position which they are satisfied to maintain). Whilst conceding that some of the old practices (such as headrunning and predatory loss-leading) may not be welfare optimal they argue that such practices will not survive.

A more fundamental concern about the competitive process is whether the balance of service and fare changes which might result from freeing entry is socially optimum or not. Probably the most notable consequence of deregulation throughout the country has been the flowering of minibus services which have attracted new passengers, and have generally been popular. It is possible that the outcome on some routes at least will be the replacement of all or part of the traditional large bus service by minibuses offering higher frequency but at higher fares. Foster and Golay refer to this as being "in principle the main economic benefit of deregulation." The question is whether the fact that minibuses survive, and in some cases drive out conventional buses necessarily means that welfare is improved.

.....OMIT FROM ORAL PRESENTATION .....

The potential commercial viability of minibus services in Britain

was explored by Bly and Oldfield (9) who suggested that they would do very well because of the increased frequency and reduced journey times that they were able to offer, irrespective of whether there was any differential in passengers values of time or fares. Glaister subsequently forecast the likely split of traffic between minibus and traditional bus services on a hypothetical London route(10), and using real data for services in Aberdeen (11).He concluded that small vehicles would play an important part in a deregulated industry even if, as he assumed, they operated at premium fares. In high flow areas he concluded that big bus services would remain, at lower fares, to offer a service to poorer people, and that the availability of a range of different service qualities at different fares would cater for people with different values of time to the public benefit. In low flow areas, however, he conceded that big bus services might be substantially reduced to the detriment of the lower income groups. Both Nash (12) and Galvez (13)have agreed that small buses could survive in a competitive world, but concluded that the possibility of them driving out big buses in circumstances where such an outcome was against the public interest was greater than suggested by Glaister.

.....CONTINUE HERE.....

At the heart of the issue lies the nature of the consumer decision making process. If there are sufficient passengers who because of the uncertainty about the arrival time of a cheaper bus, will board the first suitable bus to arrive, irrespective of the fare charged, then high frequency, even at high fares, will be commercially attractive to the operator. Once the process begins, the gulf between the fare/frequency combinations available may widen. The choice set will then not include the original relatively high frequency/low fare combination and the commercial emergence of the new product mix does not necessarily guarantee its social optimality, as Evans (14) has recently demonstrated.

(b) Economies of scale and scope and user costs

We have previously noted that in a truly contestable market the existence of scale or scope economies is no problem because immediate entry of an operator of optimal scale and scope is assumed to be costless. This is based on the assumption that sufficient of the benefits of scale or scope accrue to, or can be appropriated by the entrepreneur for them to be effective in determining what structure is most profitable, and hence able to survive.

In the bus industry there may be some benefits of scale or scope which accrue to users which cannot be appropriated by producers. The "Mohring effect" of waiting time savings to passengers as route frequencies increase is the classical example. Similarly it has been argued that the maintenance of area wide fare scales, through ticketing arrangements and widely available system travel cards all yield benefits to the consumer but are not necessarily

sustainable in a freely competitive market.

On its own merits, the common fare scale does not appear to have a great deal to commend it, implying as it does the possibility of considerable, but uncontrolled cross-subsidy. But other arrangements such as the administration of a concessionary fares policy in a multi-operator environment and the maintenance of system wide travel card systems may become impossibly difficult in the context of very complicated competitively oriented fares structures. Moreover, there is clearly a threshold at which it becomes of commercial benefit to the larger operator to be able to use the company travel card as a competitive instrument offering loyalty rebates.

(c) Congestion.

The Department of Transport has argued that the replacement of large by more frequent small vehicles, would on balance reduce congestion by attracting passengers from cars. The conventional wisdom that there is little substitutability between public transport and cars was deemed inapplicable to a situation where the smaller buses were more closely able to replicate the speed, comfort and accessibility of the private car. However, as a second line of defence if that proved not to be true powers were to be given to the Traffic Commissioners to restrict buses where traffic management was demonstrated to be adversely affected.

(d) Distribution

As far as the distributional consequences of deregulation are concerned the formal position is that local authorities retain the power, within their current financial capabilities, to supplement commercial services through the tendering process. They also retain the powers to support concessionary fares schemes so long as those schemes do not discriminate between operators. They are no longer able to enforce preferred fares levels for commercial services, though some of the PTA's do appear to be trying to use their influence to maintain overall control on fares.

3. What light does the first year of experience shed?

Although it is still quite early in the game, it is already possible to make some observations on the way in which the deregulated markets are working.

(a) The effect on costs

It is already clear that the competitive threat, as well as actual competition on the road, has caused substantial revisions in working practices and reductions in real wage rates. In some of the metropolitan counties the ratio of bids to tenders in the first round was low and the prices relatively high. But competition does now appear to be intensifying and the pressure on costs increasing. Already in some places the transport unions

have accepted increased use of part time labour, large differentials between traditional wage rates and the new minibus rates, and even differentials between the wage rates for new employees and for protected old employees doing the same job. The prior estimate of wage cost reductions of 30% do appear to have been achieved in many cases.

The downward pressure on wage costs has been complemented by changes in product mix within a broadly stable total output, with a reduction of supply in the more costly and less well remunerated periods and locations. The fact that this has not enabled price reductions is partly because there has been a reduction in subsidy expenditures, but largely because increased frequencies and smaller vehicles on the more highly patronised routes has reduced the surpluses that they formerly generated.

(b) Company structure

Considerable restructuring also appears to be occurring. Technical services such as network design and computing, formerly thought to be sources of scale economies exclusively available to large operators, are now available at arms length, on a commercial basis. Some small operators have sought solutions to their problems of maintenance by buying in from the road haulage or light commercial vehicle sector, a prospect that becomes increasingly attractive with the move into minibuses; in the process of privatisation of NBC one of the packages which has proved to be marketable is a collection of apparently rather unattractive engineering facilities which the purchaser proposes to use to provide specialised engineering services on a common user basis. Bus suppliers and finance houses are beginning to provide vehicles on short leases which make it possible to separate the ownership of the capital assetsw from the management of labour in operations. This will undoubtedly facilitate more flexible uses of labour than has happened in the past, and reduces the capital risk to a calculable basis.

(c) Extent of on-the-road competition.

The incidence of competition on the road can be understood in terms of four factors;

(i) Characteristics of incumbent companies

In deciding on a target entrants appear to be looking for situations in which existing fare levels are high or service levels low so that they may hope to be able both to generate and attract traffic by improving service. It is also an attraction if, for some reason, the incumbent appears unlikely or unable to retaliate. Insofar as the major competitive dimension has been service frequency and the instrument has been the minibus, companies who do not have a fleet of such vehicles may be tempting targets. Inability to retaliate may also obtain where an out of district operator attacks a municipal who is statutorily not

permitted to go into totally new stage operating territory in retaliation.

(ii) Characteristics of potential entrants.

On the whole companies have tended to try to expand in areas where they have a base already, or where they have managerial knowledge. The latter characteristic seems to have been very influential, for example, in the strategies of the two major predators to date - UTB and Devon General. For large existing operators the availability of spare capacity may lead to diversification into other locations (as for example the Vectis move into Southampton) or other products (for example the moves of several small and medium size independents from contract and hire into stage business). Ownership also appears to be important. For example, the initial financial vulnerability of some NBC management buyouts, and the formal setting of non-aggressive objectives for former municipal companies has limited the initial extent of competition. For smaller entrants an existing base, and spare capacity appear to be important, though they appear to be particularly inclined to entry which is of low visibility (gap-filling rather than head on confrontation) and of low risk (tendering rather than commercial registration). In all cases entry has appeared more attractive where the entrant has no established market at risk to retaliation.

(iii) Characteristics of the market territory

The arrival of the manoeuvrable minibus has opened up some hitherto empty territories which are particularly attractive because of the belief that such entry is less likely to attract retaliation. Other areas of attraction are those which have historically been disputed (competition between Leicester and Midland Fox simply continues a historic rivalry), and those which are seen as very peripheral to the incumbents core.

(iv) The historic relationship between potential competitors

For the ex NBC companies potentially in a position to threaten a municipal or ex-PTE incumbents it may be considered prudent to ensure that they do not enter competitions that they cannot conclusively win. Given a high level of mutual understanding, particularly in the PTE areas where they have formerly operated jointly or in close collaboration, both parties may come to the correct conclusion, without registrable collaboration, that maintaining the historic division of territory without aggressive competition, is likely to be the most profitable strategy. At the other extreme, where relationships have traditionally been bad, and where there is no impediment to cross-subsidy, unsustainable levels of competition may persist. For example, experience in Strathclyde, where low

levels of bus occupancy continue to be sustained by the major operators in a capacity war, suggests that substantial loss-making and cross-subsidy can exist.

(d) Competitive practices

The competitive behaviour of operators may also be simply characterised. Competition on the road has usually taken the form of increasing supply and improving service quality (particularly by the introduction of smaller vehicles and higher frequency operation) rather than reducing fares. Moreover, wherever it has been felt that there is some prospect that a new entrant might attack with minibuses there seems to have been a tendency by the incumbents to anticipate that competition by obtaining their own minibuses, even where that has not been seen as the preferred outcome in the absence of competitive entry.

Once the minibuses have been purchased they are then almost inevitably used, a process accentuated by the ability of managements to reduce real wages and tighten working conditions in the process of replacing large buses by minibuses. Hourly wage rates for minibus drivers appear to be 25-40% lower than those for conventional bus drivers, while the differences in working conditions and operating speeds accentuates this so that the cost per comparable bus mile of a minibus may, for the moment at least, be less than half of that of a conventional bus within the same organisation.

(e) Integration and economies of scope

Already the area wide travel cards are beginning to be replaced by single operator schemes in the metropolitan area. Other area wide services such as integrated timetable production suffer from similar dangers of commercial unsustainability, whilst appearing to be of clear benefit to consumers. Dominant operators may also feel that the provision of these services by the local authority is unfairly undermining one of the advantages of scale, or is simply inefficient.

(f) Congestion

The evidence on the creation of congestion is not clear. Minibuses do appear to have been able to attract patronage from cars in some cases, though our own research shows that this has occurred more out of the peak than at the peak. The generation and attraction capabilities of small vehicles also appear to have varied between types of location, with the effects being greatest where better penetration and more flexible operation has made it possible to tap the middle class discretionary trip market and least where the traditional heavy journey to work flows were concerned.

In terms of the ability of the Traffic Commissioners to respond to problems when they do arise there can be some genuine difficulty. In the notorious case of Glasgow's Renfield Street,

it was not possible to secure reductions by mutual consent of the operators and the Traffic Commissioner did not find it possible to impose restrictions without being in conflict with his obligation to operate even handedly between operators. In Tyne and Wear deregulation has recreated congestion on the Tyne Bridge which had been greatly reduced within an integrated system.

#### 4. What lessons can we draw for control?

Let me now make my interpretations, and draw what lessons I can.

##### (a) Contestability and the development of credible threats.

Although the bus is a versatile asset which may not be regarded as a sunk cost in entering a market, the promotional costs and initial operational losses are likely to be irretrievably sunk by an intending entrant. It is the expected size of these, and the capacity of the intending entrant to sustain them, which deters entry. Entry to the core commercial network of another operator is perceived as high risk, likely to lead to a protracted period of mutual loss-making. The experience of even such an experienced, well-funded operator as UTB is hardly encouraging so far in terms of potential returns to competitive entry. Hence it is appearing rational to enter only if you are confident of supplanting the incumbent rapidly and cleanly, or if you have reason to believe that you can reach a quick accommodation.

By the same token competition has initially been more prevalent in the tendered sector where the sunk costs are limited to the costs of putting the tender together, and where immediate commercial retaliation is less likely. So long as vehicle capacity is available all other costs are only incurred in the event of the tender being successful and a market niche guaranteed. Hence, competing in the tender market may seem much less risky than competing on the road. Whether, having established a foothold in stage services through successful tendering new entrants are then emboldened to expand into the commercial network, remains to be seen. One interpretation of the low tender prices which were achieved in the first round of tenders is that incumbents were particularly keen to prevent this happening, and were more willing to risk immediate attack on profitable commercial services by cross-subsidising the tendered services, than to allow tenders to be lost. Similarly, the retaliatory attacks on lost tenders by large operators may be construed as an attempt to raise the costs of entry.

Of course this is not consistent with the contention that the market is truly contestable. The lesson is that obtaining and maintaining an appropriate market structure is of great importance in trying to get the most out of deregulation. Certainly there appears to be no clear criterion of what constitutes dangerous dominance. Already, in the more recent sales of NBC subsidiaries, there are beginning to emerge groupings of a size which certainly suggest considerable financial leverage, and even the elimination of potential

competition between contiguous operators (e.g. East Yorkshire and West Yorkshire). Reagglomeration may also need to be controlled.

(b) Competitive practices and the control of predation

The prevalence of non-price competition in the commercial service market, and the apparent importance of the nature of the incumbent and potential entrants, suggest that the oligopoly analogy is more appropriate to the analysis of industry behaviour. Predatory practice has not disappeared, and it may well be the fear of predatory retaliation which explains the reluctance of small operators to compete in the core markets of major incumbents. Hence freeing entry has increased rather than reduced the need for regulatory overview of the sector.

To meet that need the 1985 Act imposed on the bus industry the normal requirement to register with the OFT any practices which might be considered restrictive. However, the control of competitive practices is likely to be very difficult. For example, because the bus product is heterogeneous and complex the marginal costs and revenues of particular services may vary enormously over time and space. Hence it is difficult to know, without an extremely sophisticated enquiry, whether a particular action is predatory or not. The Office of Fair Trading has yet to prove its effectiveness in this area. Clear guidance on acceptable behaviour is required; perhaps progress might be made by requiring any operator introducing a service or pricing structure appearing prima facie to be predatory to maintain it for a prolonged minimum period as a condition for the retention of his operators licence. If OFT cannot cope with the extended and specialist work that is imposed on them it might be desirable to create an OFBUS to combine the kind of protective powers of parallel organisations in the newly privatised monopolies with specialised fair trading responsibilities. Careful attention now needs to be paid to developing - and publishing- standards of acceptable commercial behaviour in the industry.

(c) External effects and planning powers

Adverse externalities do not appear to have been adequately dealt with in the institutional arrangements. In particular the powers of local authorities to secure protection against congestion effects are inappropriate, and the Traffic Commissioners are themselves hamstrung by the need to act in a way which must primarily be seen as evenhanded between bus competitors rather than in the wider public interest.

The institutional weakness here seems to be the linking of the powers to manage bus traffic on the streets with those to ensure effective competition in the bus market rather than with the other responsibilities for traffic management. In principle that looks like an easy problem to solve; in practice, because it would involve passing rather more powers over the local bus system back to the mistrusted urban local governments it appears

to be rather a difficult step to take. That might be more acceptable if no operating company remained in municipal ownership. The PTA's and LA's could then be given extended responsibility to plan the service networks without either the suspicion or reality of a conflict of interest.

(d) Protecting the deprived.

In the first round of tenders it appeared that a very large proportion of the original service level was being maintained whilst considerable reductions in subsidy cost had been achieved. But there have been substantial and I believe accelerating changes in the pattern of services with considerable loss of service at the less popular times of the day. The financial picture also seems to be changing a little now as incumbent operators are beginning to deregister services in areas where the initial registration was particularly high, and as tender prices begin to rise in areas where the initial round saw very low tender prices more authorities are now beginning to restate their earlier warnings that the maintenance of the network is becoming increasingly difficult, and that some groups will be progressively deprived.

#### CONCLUSIONS AND PROSPECT

Let me now conclude. Deregulation appears to be having substantial cost reducing impacts on all operators and be increasingly replacing high cost by lower cost operators in parts of the tendered market. In the commercial registration field there is some reluctance to compete, and where competition does occur it is generally on capacity or quality rather than fares. Prolonged periods of unsustainable swamping, and a number of dubious competitive practices have resulted. Thus while the competitive threat is highly credible it is clear that the market is not completely contestable in the Baumol sense.

That being so a number of corollaries can be stated. Whilst we may rely on the processes of oligopolistic competition to keep down factor costs we cannot rely on them to ensure an optimum price/quality combination. Nor does either a highly contestable or an oligopolistic market structure generate an equilibrium with optimal levels of externality or optimum levels of service integration.

That synthesis tends to confirm my previous judgement that the comprehensive competitive tendering would offer the most powerful and credible threat to incumbents, whilst retaining the capacity to secure optimal degrees of integration. The major weakness of it is that it might have attenuated the inducement to service innovation which appears to be strong (perhaps even excessively so) under the present regime. In political reality an immediate move to comprehensive competitive tendering is most unlikely.

Given that, I believe that four institutional requirements are now required in order to get the best out of deregulation;

(i) Firstly, not only must the initial market structures be appropriate, but it will be necessary to maintain a continuing control to prevent monopolisation.

(ii) Secondly, it is necessary to develop an effective set of standards for, and control over, competitive practices.

(iii) Thirdly, the responsible local authorities should be given effective means of influencing both the management of bus traffic in their area and the protection of service quality and cost for deprived areas.

(iv) Fourthly, and I think essential if the proper degree of responsibility is to be returned to the local political institutions, ownership of assets and operational responsibility must be more cleanly and firmly removed from local political influence.

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