

UK BUS DEREGULATION: THE REASONS AND THE EXPERIENCE

Stephen GLAISTER*

The London School of Economics

Las subvenciones se han reducido rápidamente, sin excesivos incrementos de las tarifas y sin disminuir el nivel de los servicios. Más del 80 % de la red se ofreció comercialmente.

No ha habido tanta competencia en la carretera. Los pequeños vehículos han experimentado un gran aumento, aunque no se han creado mercados diferenciados. La congestión y la seguridad del tráfico no han sido un problema. La competencia por obtener concesiones ha sido fuerte.

La demanda no ha respondido al incremento de la oferta de servicios. Los factores explicativos podrían ser: irregularidad y una deficiente información y «marketing».

La coordinación de servicios y del sistema de tarifas se está restableciendo ahora reconociéndose su utilidad comercial.

La alternativa de propuestas comprensivas se ha adoptado en Londres. Aunque ha dado buen resultado, la presión ejercida sobre los costes es limitada. La legislación presente en favor de la competencia es muy lenta, inflexible y generalmente inapropiada.

1. Introduction

This is an overview of the context and reasoning behind British bus deregulation as it was seen in mid 1984 when the decision to deregulate was taken, and a comparison of some of the predictions made with outcomes to June 1990.

In order to come to a view on the success of the policy of bus deregulation, it is important to understand the *primary* problem that it was intended to solve. The impetus was primarily a result of a determination to reduce overall government expenditure—both central and local authority. Thus it was not only the result of a desire on the part of the Thatcher Government to introduce competition into markets as a matter of principle. Nor was it primarily in order to increase private ownership of public sector assets through privatisa-

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tion, nor to secure government income by non-tax means. These kinds of objectives were important to the Conservative Government, but they only became prime movers after the privatisation of British Telecom in November 1984.

Most of the controversy about the merits and demerits of bus deregulation and much of the subsequent evaluation has concerned the effects on passengers; that is, the effects on the demand side. Although the Government did express hopes of increased demand and lower fares (which, as we shall see, have not yet been realised) the prime motivation for the policy was actually to change things on the supply side in order to meet global requirements for subsidy reduction whilst minimising damage to passengers through fares increases and service reductions.

Nonetheless, a full evaluation of the success of deregulation must include effects on both the supply and demand sides. There are sound economic efficiency arguments which demonstrate that *external* bus subsidies can generate net economic benefits *if* they are not associated with reductions in operating efficiency; see Glaister (1987).

On the other hand *internal cross* subsidy is difficult to identify, not economically efficient, often perverse in its effects and not subject to political scrutiny (Annex 2B of the White Paper *Buses* is a telling critique of internal cross subsidy). The Government expected competition to drive fares closer to avoidable costs, by route and period of the day. Cost levels would themselves be generally reduced. This would imply fares reductions on heavily loaded routes, except to the extent that peak load pricing modified this. Conversely, fares might rise on routes then in receipt of generous cross subsidy.

2. The 1984 bus policy

In the British system a white paper is presented to Parliament of when a government announces its intention to introduce a major piece of legislation. The White Paper, *Buses* was published in July 1984 after an extensive internal review conducted during that Spring. *Buses* contains more detail and analysis than do many white papers, including four Annexes of facts and commentary. The proposals were successfully carried into legislation substantially unchanged in the 1985 Act so the White Paper serves well as a reference document.

The philosophy, aims and means of the new bus policy are well encapsulated in paragraph 1.12 of *Buses*:

The total travel market is expanding. New measures are needed urgently to break out of the cycle of rising costs, rising fares, reducing services, so that public transport can win a bigger share of this market. We must get away from the idea that the only future for bus services is to contract painfully at large cost to taxpayers and ratepayers [ie local property tax payers] as well as travellers. Competition provides the opportunity for lower fares, new servi-

ces, more passengers. For these great gains, half measures will not be enough. Within the essential framework of safety regulation and provision for social needs, the obstacles to enterprise, initiative and efficiency must be removed. The need to act is urgent.

The White Paper proposed (see Banister 1985 for more detail):

2.1. Abolition of road service licensing

Instead of having to apply for a road service licence operators would be required to register the route and timing of their services with a new licensing authority and to give adequate notice of intent to commence, make a significant modification to, or withdraw from a service (The registration function was subsequently left with the existing Traffic Commissioners and the length of notice was fixed at 42 days.) A competitive market would thus be created resulting in lower fares, reductions in costs, greater variety and responsiveness in services to demand and new opportunities for operators. Overall patronage would increase as a result. Taxis and hire cars were seen as a potentially important intermediate form of transport between the car and the bus; restrictions on numbers licensed would be relaxed and taxis would be permitted to accept more than one separate fare. All services with a minimum sector length over 15 miles were already entirely free of quantity control as a result of the 1980 Act.

2.2. Competition and cross subsidy

In order to facilitate and foster this competition the industry was to be restructured. The nationalised National Bus Company was to be broken into separate companies and then sold to the private sector (The Scottish Bus group was not to be immediately privatised - in fact this was commenced in 1990). The remaining publicly owned operators, in the metropolitan counties and the Municipals, were to be made into regular, «arms length» companies, owned by the local authorities and with normal company accounts so that any subsidy was visible and explicit. The extensive system of cross subsidy of unremunerative services by remunerative ones, a deliberate function of the route licensing system under the 1930 Act, would thus be removed. The previous, anomalous exemption of the bus industry from the provisions of competition law was to be removed.

2.3. Subsidy

After operators had registered commercial services local authorities would be required to secure such additional, subsidised, services as they believed necessary by competitive tendering with equal access to any who would care to bid. Local authority-owned companies would be in equal competition with the private sector, including the ex-National Bus Companies. If a local authority

chose to operate a system of allowing particular groups to travel at concessio- nary rates - the elderly for instance - then all operators would have to be given access to monies in compensation on the same terms.

2.4. *Safety*

The system of quality regulation in the name of safety was not greatly changed. Operator's licenses would be required and vehicles subject to regular and random inspection. The Traffic Commissioners would have limited powers to stop operators who behave foolishly on the road from running local services at all, and, where there are problems with traffic, to impose condi- tions about routes and stopping places, so as to produce a result which is both orderly and fair to all operators involved.

In interpreting the UK experience it is important to bear in mind that there were three distinct and simultaneous changes:

- a substantial reduction in subsidies
- removal of quantity regulation
- privatisation of the nationalised undertakings and separation of the others from their local authorities.

Care must be exercised in attributing any one effect to a particular cause. It is also important to note that it is, in principle, possible to adopt a policy of changing any one of these three without changing the others. In the case we consider here it was decided that, in practice, it was necessary to change all three in order to achieve the Government's objectives.

3. **The primary problem: subsidy reduction without cutting output**

Figure 1 shows the situation as it would have looked in Spring 1984, when 1983 data were available. The dotted lines show Treasury provision for reve- nue support in the annual public expenditure budgeting process ('Cmnd' refers to the Command reference number of the respective annual Public Expenditure White Paper). The solid line shows the outturn - ie what was being shown in the official accounts as actually having been spent. Bus reve- nue support was seen to be growing very rapidly. The figure shows official public expenditure provisions for revenue support in successive years: bus subsidy appeared to be running out of *central* Government's control as a result of deliberate policies of *local* authorities. The Government of the day was determined to reduce public expenditure for reasons of macroeconomic policy. There was also a long-standing desire to put the industry on a sounder, more commercial footing.

Thus the problems to be addressed were

- local bus subsidies were running far ahead of central government provision.

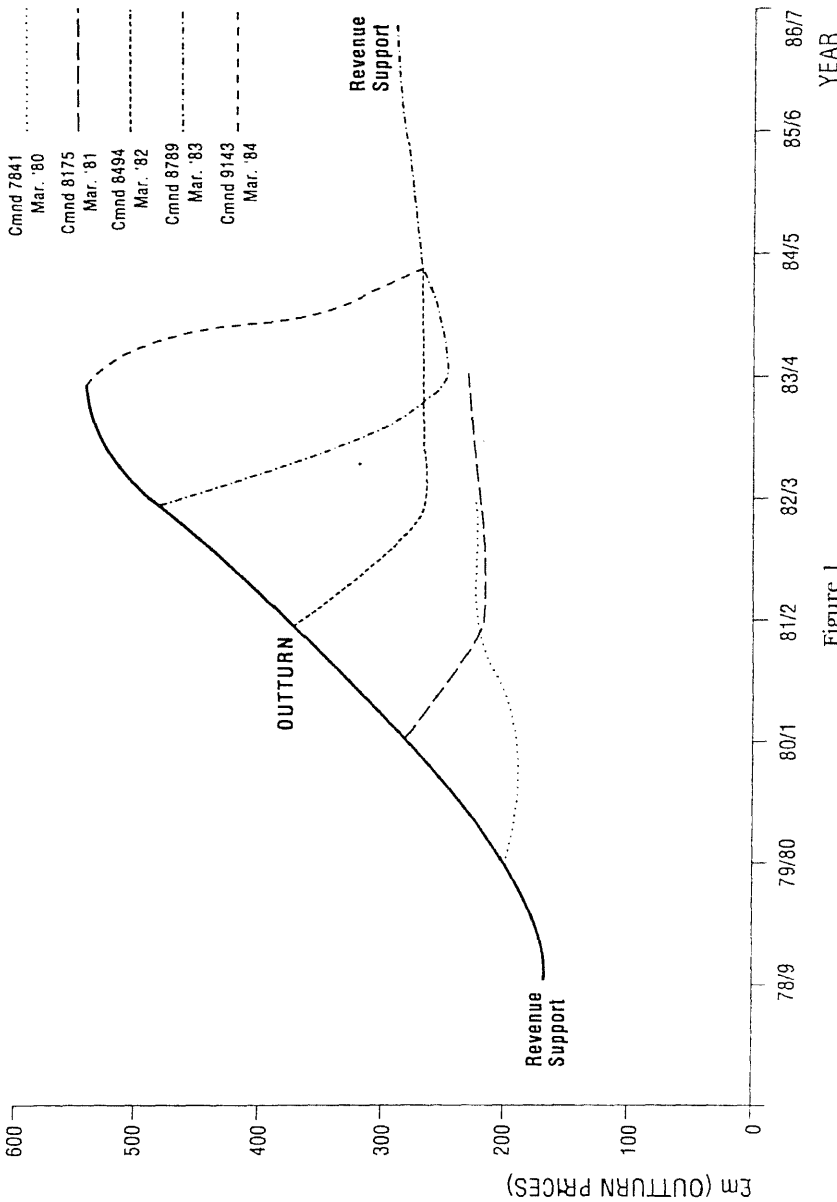


Figure 1
Local Authority subsidy for buses compared with public expenditure provision (England only)

- there was no effective control mechanism in the existing system
- the bus industry was not considered to have a sufficiently commercial outlook.

3.1. The cost reduction solution

The prospect of closing the gap shown in Figure 1 must have seemed daunting. Simple calculations show that if this were to be achieved by removing

subsidy at constant service levels and constant unit costs then fares would have to increase by at a factor of at least 2.5 on average in the metropolitan areas and much more in some of them. To do it by reducing output at constant fares would have implied an outcome which would have been just as politically difficult.

Salvation was offered by the observation that unit costs had increased in the industry, especially where subsidies had increased. Evidence was found by investigating differences within and between the National Bus Company (public sector; the major, or only, operator in most country areas, small to medium towns and cities) and metropolitan country operations, and between public and private operators at home and abroad (see *Buses* chapter 5 and Annex 2a). There were also investigations of the earnings of workers in the bus industry and those in similar industries such as road haulage. The conclusion was that (*Buses* paragraph 4.10).

the potential exists for cost reductions of up to 30 per cent of total costs of public operators.

Having established that the only feasible solution lay in cost reduction the issue became one of how best to secure it.

The front-running alternative to the line actually adopted by the Government was some system of authorities putting routes out to competitive tender, but disallowing competition on the road. This became summarised as «competition *for* the route rather than competition *on* the route».

This alternative was pressed by many of the operators and most of the scholars who had expertise in transport also advocated this approach; Gwilliam, Nash and Mackie (1985a, b) give a good contemporary statement of the arguments.

In brief, the argument is that tendering would avoid the risks perceived of deregulation, of bad behaviour on the road in the attempt to win passengers; and it would allow local authorities to keep control of fares and allow them to plan an integrated set of services with cross subsidy, perhaps optimally adjusted according to the principles of the second best familiar to economists. At the same time competition for tenders would provide the required pressure on costs (Glaister and Beesley, 1985a, b gave counter arguments and responses).

In the event the view was taken that the method most likely to succeed, and the *only* one with a chance of acting quickly enough to meet the timetable set by the public expenditure requirements, was to introduce genuine competition into bus labour markets by creating a competitive industrial structure - that is, to both deregulate and privatise. However, the tendering alternative *was* adopted in London and I compare the way in which the two systems have turned out below.

3.2. *The effect on costs and subsidies*

Deregulation proper occurred in January 1987, although a transitional arrangement started in October 1986.

Figure 2 shows the outcome at current prices including London - that was the way it was looked at when the policy was formulated because it was not known that, in the event, London would be treated differently. Figure 3 gives the same information but at constant, 1984 retail prices and excluding London¹.

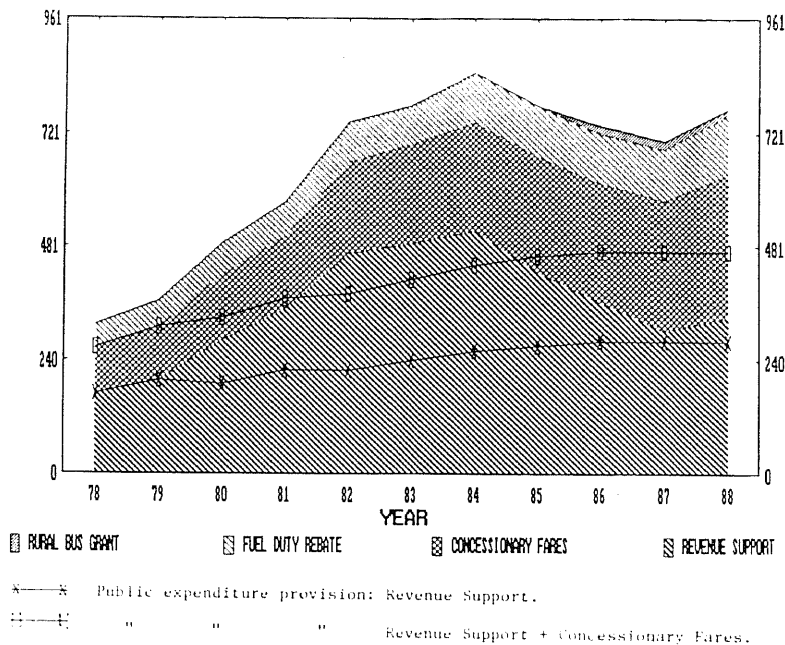


Figure 2
 Bus subsidy: England excluding London
 at current prices (m. pounds)

Viewed simply in terms of the objective of bringing revenue support back to the public expenditure plan levels, the policy worked better than many people would have dared to hope at the time. In the English metropolitan areas fares rose by an average of only 23 % real, 1984 to 1988/89. They did not rise at all in the English shire counties. On average they rose by 10 % in England as a whole². There has been a remarkable increase in output where a decrease might have been expected. There has been a 15 % increase in total vehicle

¹ The years indicated on the horizontal axes of these diagrams are April-March financial years. Thus '1988' means April 1988 to March 1989.

² These estimates, and many others in this paper are made from *Bus and Coach Statistics Great Britain 1988/89* HMSO November 1989. White and Turner (1990) note that alternative ways of computing these average increases can increase the estimates somewhat.

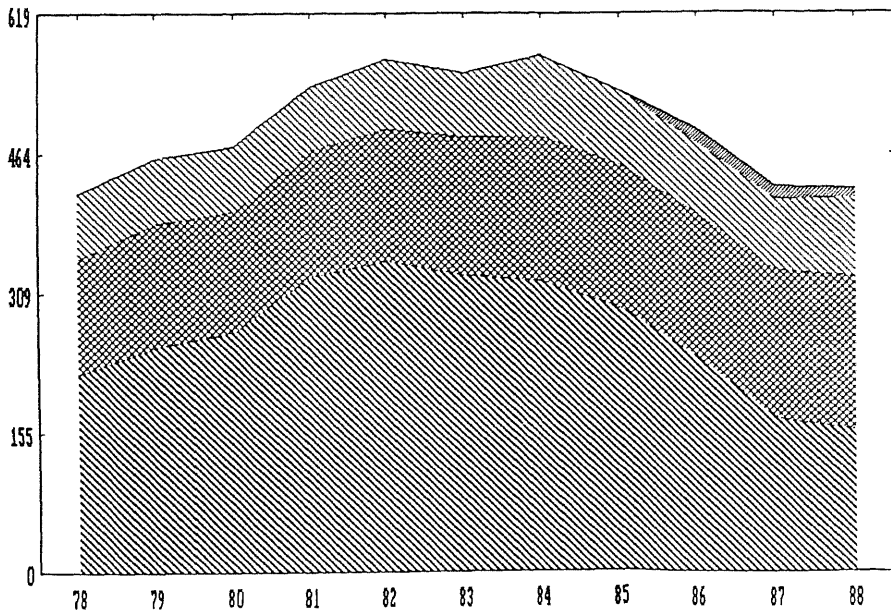


Figure 3
Bus subsidy: England excluding London
at constant, 1984 prices (m. pounds)

kilometres, 1985/86 to 1988/89 (but the average vehicle size has fallen, see below). There is now almost as much vehicle kilometreage operated as *commercial* service as the *total* in 1985/86; out of the big metropolitan areas there is more. The proportion of the routes extant before deregulation which carried on afterwards as commercial propositions —well over 80 %— was far more than anybody had predicted [see Gómez-Ibáñez and Meyer (1989)].

This has been possible because of the predicted fall in bus operating costs per vehicle-kilometre. Excluding depreciation, the real fall, 1985/86 to 1988/89 is around the predicted 30 % with the exception of London at 14 %. One source of these savings, was real weekly and hourly earnings in the industry falling, against an increase in other industries. Another source of savings was the fall in numbers employed which, together with the increases in output, suggest considerable increases in output per employee. These are superficial comparisons and one needs to conduct careful analyses to understand what has happened in detail. Several authors have done this, see Gwilliam (1989), White and Turner (1990), White (1990), Gómez-Ibáñez and Meyer (1989), Tyson (1989)³, and they confirm the general impression given by the aggregate statistics. White and Turner do note that there was a «windfall» reduction in costs

³ Tyson has noted the effects of changes in accounting conventions in the case of the Passenger Transport Executives, contemporaneous with deregulation, which reduced the apparent operating costs. In particular some historic pensions liabilities are now not borne by the bus operating companies.

due to the substantial reduction in fuel prices - worth 2 to 3 percentage points in cost saving. On the other hand, real labour costs have moved unfavourably, so that relative to general male weekly earnings costs per bus mile have fallen not by 30 % but by 44 %. The predictions in the White Paper were relative to the earnings levels then ruling, not to present real levels.

This outcome was consistent with the general strategy of the administration at the time: to weaken the power of the labour unions and break up nationally negotiated agreements on terms and conditions. In the case of the bus industry the dominance of the National Bus Company together with a relatively few large companies serving metropolitan areas made it easy for the Transport and General Workers' Union to keep a firm grip on negotiations. Deregulation and fragmentation of ownership was recognised as a means of loosening this grip and facilitating the development of new and individual labour contracts. Hibbs (1990) and Hesselstine and Silckock (1990) give accounts of how this has, in fact, happened. They estimate that roundly one third of the labour cost savings have been due to deterioration of terms and conditions and two thirds due to increased productivity. Hibbs⁴ reports that there was general agreement among the managers he interviewed that one of the biggest advantages of the post-1986 situation arose from the managerial side walking out of the two negotiating bodies that had for many years arrived at the National Agreements on pay and conditions. The result was the growth of plant bargaining and pay now reflects the local market for labour. Without this the spread of minibus operation at specific rates could not have developed (see below). Hibbs also notes that Municipal operation had always been constrained by the power of the unions through their influence in the Council Chamber and its committees. This was clearly most significant in Labour councils, but was not unknown elsewhere. Management authority was undermined and moves to improve productivity were often blocked by this route.

Two caveats are necessary here. A significant contribution to the cost reduction has been the introduction of new pay scales associated with small vehicles which have been growing in number. Therefore the fall in cost per vehicle kilometre overstates the fall in cost per seat kilometre - according to White and Turner (1990) by about one third. Secondly, the estimates quoted here excluded depreciation. It has been alleged that operators have been failing to renew their vehicle stock (for instance, White and Turner, 1990). If so then there are some missing components which will inevitably appear in the cost accounts sooner or later. This is a difficult issue to resolve. There has been considerable purchase of new vehicles. There has been a significant growth of leasing which must have affected the depreciation issue. It is also becoming more widely recognised that operators were initially over cautious in assuming a life of only four to five years for the new, smaller vehicles. Seven or eight years may now seem to be more appropriate (Banister and Mackett, 1990). In that case the depreciation will be substantially less than was previously thought.

⁴ In a personal communication and Hibbs (1990).

It may not be legitimate to attribute all of the subsidy reduction to deregulation. Figure 3 shows that in real terms and excluding London revenue support had peaked before 1984. No doubt this was due to other measures to limit local authority expenditure, such as precept control and the system of Protected Expenditure Limits under the 1983 Act. Supporters of deregulation will claim that the rapid increase in the rate of decline of revenue support after 1984 is largely attributable to deregulation because they will point to the reduction in labour costs after 1984 which was, itself largely attributable to deregulation.

The success in reducing revenue support was not matched by a reduction in two other important items, concessionary fares compensation and fuel duty rebate, both of which stayed broadly constant at constant retail prices. The lesson is that if some forms of subsidy are subjected to new market disciplines and others are not, then there is a risk of substitution occurring away from the disciplined subsidies in favour of the others.

As Figure 3 illustrates the overall fall in public expenditure on local buses in England, excluding London, 1984 to 1988 was about 26 % at constant retail prices. It is much the same when London is included: however the reasons are different: a smaller cost reduction and a larger revenue gain. White and Turner (1990) point out that there are some additional administrative and other costs in local authorities, connected, for instance, with the tendering process. If one accepts their estimate of these and assumes there were not offsetting administrative savings from deregulation and privatisation, then the saving is reduced from 26 % to 16 %.

The cost reduction must be counted as the success of the 1985 Act. Public expenditure has been reduced in the face of rising real costs of labour in a labour intensive industry. Yet physical output increased, fares rose only moderately and fares concessions were protected. The primary objective was achieved.

John Hibbs (1990) has conducted a series of structured interviews with managers in the bus industry. The managers are very clear that they would not wish to see a return to the system as it was before the 1985 Act. They prefer competition *in* the market to a tendering or franchising system because that gives them freedom to manage and develop their businesses in their own way, without the fuss of having to deal with a higher authority. Their greatest complaint about the former system was not regulation in itself, but the increasing interference from political bodies which inevitably accompanied the rapid increase of subsidy in the context of route licensing.

4. The alternative solution to deregulation: London

The White Paper proposed one exception to deregulation «for the time being» - London. The Government has several times stated its continued intention to

deregulate London, but Parliamentary time has not been found for the necessary primary legislation.

4.1. *Route tendering in London*

Provision for competitive tendering had been included in the 1984 Act, setting up London Regional Transport. This is a Nationalised Industry responsible to the Secretary of State for Transport and through him to Parliament. Its role is to plan and secure public transport services. London Buses Limited is a wholly owned subsidiary which provides the 'network' bus services and bids for the remainder, which London Regional Transport puts out to tender, in competition with other operators (many of which are privatised, ex-National Bus companies). London Regional Transport specifies the service to be provided in detail. The contracts, valid for three years, are for cost of operation: standard fares are charged, all tickets are valid and revenues are remitted to London Regional Transport.

To date about 30 % of bus kilometres have been put out to tender of which just over half have been won by London Buses Limited - they have done relatively well in winning the large networks which have been offered under a single contract and less well in relatively small single routes.

As a generalisation quality of service has been improved on tendered routes, not least because of the closer attention which is required for contract enforcement. Revenues have increased much as one would have expected from the increase in bus miles delivered, on the basis of past experience.

Each time a set of contracts is let an estimate is made of how much less the services will cost to run than they would have cost had they remained in the network. These estimates average 20 % gross and 16 % net of additional administration and enforcement costs. This is consistent with experience of similar kinds of tendering for various local authority and hospital services in the UK and US (see Glaister and Beesley, 1990).

I believe that tendering in London can be considered a success. The results have been good, the administration has run smoothly and the sensitive situation created by an in-house supplier bidding against outside competitors has generally been handled satisfactorily.

However, the London experience illustrates the weaknesses of the system which led to its rejection in favour of full deregulation out of London. First and foremost the official statistics show that bus unit costs in London as a whole have fallen 14 % in real terms over a period when they have fallen by 30 % elsewhere. After five years less than one third of the services are subject to *direct* competitive pressure, and less in the earlier years. There is no doubt that the threat of tendering has been important in helping in changing attitudes, negotiating changes in terms and conditions of work and labour practices. But it is probably not reasonable to attribute the whole of the 14 % to tendering. For instance, there has been significant saving by converting to one

person operation of buses, which was not greatly influenced by tendering. The main requirement of the bus policy in 1984 was that it should deliver cost savings in full and quickly. The London experience suggests that tendering might not have been as successful in this as deregulation was, unless it could have been made to apply to *all* routes straight away and it succeeded in applying more pressure on costs than it apparently did on tendered routes in London.

Second, London Regional Transport itself has recently hesitated about whether to accelerate the scale of tendering. Concern has been expressed about the principle of risking taking routes away from «its» own subsidiary whilst preparing it for future deregulation and privatisation. Also, the question has arisen as to whether a tender may have unfavourable cash effects on the Group as a whole in the early years because of costs fixed in the short run, and severance payments to displaced staff. London Regional Transport is presently short of cash - hence the hesitation. The point here is that this illustrates the proposition that any system of comprehensive tendering by a body which not fully exposed to commercial pressures will tend to falter and find good reasons for taking the process slowly, especially if it owns the incumbent operator!

Finally, there is the sheer size of the administrative problem of tendering all the services in a large urban area. So far the administration of tendering in London appears to have gone well enough. But, in equilibrium, with three year contracts one third of all the routes would have to be retendered every year. That is a tall order and the temptation will be considerable to simplify in ways which make the problem more manageable at the expense of competitive pressures on bidders - longer period contracts; bundling of routes into large contracts; negotiating extensions rather than reletting etc.

Some of the difficulties we are experiencing in London with tendering stem from the fact that the major incumbent operator is owned by the tendering authority. Similar problems are noted out of London by Gwilliam (1989) who regards the failure to separate ownership properly from the tendering authorities to have been an error in the 1985 Act. This inherently unsatisfactory situation is to be avoided.

Leaving aside the arguments about relative cost efficiency of the two systems, one's judgement between them must largely depend on the weight one gives to the benefits of planning and integration and to the faith that one has in the ability of *practical* planning under political influences to do «better» than market forces. In making these comparisons one must be careful not to be trapped into comparing an idealised (but not, in practice realised) planned solution with a hypothetical free market solution. One must attempt to account for the realities (cf Beesley and Glaister, 1985a, b).

5. The secondary expectations of the 1984 bus policy

I have argued that the primary aim was subsidy reduction and therefore cost reduction. The summary of the *Buses* White Paper given above contains seven-

ral secondary propositions and it is to these to which I now turn. I cannot attempt a complete recital of all the effects of bus deregulation. Here I wish to mention a few matters where I think the literature poses some interesting questions, or where there have been recent developments.

Most people accept that it is too soon to draw firm conclusions about the outcome. Change is still rapid. The most recent data at the time of writing relates to the year ending in April 1989; that is, just over two full years after deregulation proper and four and a half years after the publication of the White Paper.

5.1. A competitive market would be created

It is difficult to say «how much» competition has in fact occurred, beyond conceding that it has, so far, been less than the more optimistic of us expected. There is plenty of on the road competition to be witnessed in particular places. Evans (1990) notes that about 9 % of bus kilometres were involved in direct competition at one time but says that this «now appears to be declining». But he goes on, «active competition has been common enough and varied enough to have provided the industry with a wide range of experience». Tyson (1989) says of the metropolitan areas, «competition has been on a much larger scale than anticipated by many people, with at least 30 operators in the market in each area and an average of three bids for each tender for subsidised services». Generally, competition increased in the second year of deregulation. Against this is observed a tendency amongst operators to form larger companies or to create and expand groups of companies. In a more recent paper Tyson (1990) says that «whilst there are surprisingly few instances of two or more operators running identical routes there are many instances of two or more operators serving substantial segments of a corridor». Competition remains strong for tendered bus routes in London.

Gwilliam (1989) notes that companies have tended to expand into areas where they have local knowledge; they have tended to avoid confrontation; they prefer to compete for tendered routes rather than lodge commercial registrations. In many areas operating territories are similar to those before deregulation and it is possible that there has been a tacit agreement not to trespass on each other's territory. Hills (1989) reports active competition on the road in Scotland.

The national statistics fail to report numbers of small operators. They do show a 10 to 15 % each year increase in the number of medium sized operators.

As I have already said, it is too soon to conclude on this topic. Competition will increase if and when the investing institutions at home and abroad decide that there are profits to be made in the British bus industry. The firm prices at which the last few of the National Bus Companies were sold and the active trading in bus companies now going on may be an indicator that this is the case.

As of mid 1988 Gómez-Ibáñez and Meyer's (1989) assessment was that «neither the advocates nor the opponents of reform have been completely vindicated by subsequent events. However, as to whether or not competition would emerge, which was central in the prior debate, the advocates appear to have the better of the argument».

One disappointment has been that the owner-drivers have not become common as they always have been in the taxi industry. The requirement for an operator's licence seems to be an inhibition.

I return to competition and competition law below.

5.2. Traffic congestion

A fear that is often expressed concerning bus deregulation is that a flood of vehicles in competition will cause road congestion. The white paper acknowledged the worry and the legislation gave reserve powers to the Traffic Commissioners in the event that congestion caused by buses had to be controlled. Two standard counter arguments were given: that smaller buses are more agile in traffic and that they would provide a better substitute to private cars than conventional services and thereby reduce traffic congestion.

There has not generally been enough growth of service to cause traffic problems. The agility of minibuses is manifest and is illustrated by the greater speeds actually achieved. There is also some isolated evidence of substitution for car use (Banister and Mackett, 1990, for evidence on both of these points). Traffic Commissioners have not had to use their powers.

5.3. Fares would fall and cross subsidy would be reduced

This was an oversimplification of a quite complex series of propositions. The system of quantity licensing had fostered uniform pricing — rates per kilometre that did not vary much by time or place. It also enforced cross subsidy— permission to run profitable services was granted contingent on the operator also agreeing to offer unremunerative services. Operators themselves introduced other kinds of cross subsidy.

The new arrangements for tendering for non-commercial services has greatly reduced some forms of cross subsidy and has forced the authorities responsible to consider what it is worthwhile paying for. But price competition has not developed to any great extent and much uniformity in fares scales has survived. There is discussion in the current literature about why this might be (eg Evans 1990b, Dodgson and Katsoulacos 1990). A phenomenon which deserves explanation is the preservation of historically determined differences in average fares levels between apparently similar areas.

Tyson (1990) confirms that «in many instances vehicle mileage has, as would be expected, increased on potentially profitable routes and has diminished on

less remunerative routes and at unremunerative times, for instance, in the evenings and on Sundays».

5.4. Greater variety and responsiveness in services to demand and new opportunities for operators

An important part of the «variety» proposition was the belief that in the UK bus size was too great and that the forces of competition would greatly encourage the use of smaller vehicles. Some simulation work I did at the time for the Government (Glaister 1985, 1986) suggested that this was the case. There is an interesting piece of research to be done on the reasons why bus size increased systematically over the decades. It is possible, of course, that the big bus is in fact optimal for many market circumstances, as argued by Gwilliam, Nash and Mackie (1985a, b). But my conclusion that capacities of the order of 30 to 40 would suit many circumstances better than the 70 or more of the conventional double decker was not inconsistent with the findings of several other, more recent authors (see Banister and Mackett for a summary). Note that this is a rather larger size than the 15 to 25 capacity vehicle which many companies bought in the early stages because that was what was available. Recent purchases are generally of the larger size predicted.

There were actually two distinct predictions on vehicle size. The first was that in a free market, where the market is large enough smaller buses would be used as a means of product differentiation, filling the gap between the large bus and the taxi. They would operate at higher speed and higher frequencies and generate their own market at higher fares than the big bus, with which they would co-exist. On the whole this has not happened.

The second proposition was that taking into account speeds, service frequencies, capital costs, depreciation, maintenance costs, labour costs and so-on, smaller vehicles would displace the larger ones in markets too small to sustain more than one type of vehicle. Whilst there have been examples of moves in the opposite direction there are signs that this was substantially correct. Minibuses generally continue to displace larger vehicles. Banister and Mackett (1990) survey the minibus experience. They note that in 1985 about 40 locations were served by 400 minibuses and in 1987 390 locations were served by 5600 minibuses. More recent figures on vehicle stocks and new registrations confirm this trend. I expect the growth to continue, reinforced by the recent development of technically superior small buses and the experience that vehicle life is better than some had expected.

Banister and Mackett's (1990) survey confirms the simulation predictions of increased vehicle speeds. Conventional estimates of the beneficial effects of frequency on patronage are confirmed, which meets the test of economic viability without increasing fares according to Turner and White's (1987) calculations. They are also seen to have higher load factors which causes complaints of crowding and being left at stops from passengers. Greater route coverage, better penetration of residential areas and hail and ride operations have all

occurred. Passengers comment favourably on the better feeling of security from attack offered by proximity of the driver. Press reports have been generally highly favourable.

There are also important effects on the markets for drivers. The driving license requirements are less demanding. It is remarked that they enjoy the better social contact with their passengers and achieve better job satisfaction. The vehicles are less daunting to drive and so new labour markets have opened up. More importantly, the minibus has been the hook on which substantially less advantageous terms and conditions of work have been hung, both in the London case and under deregulation (Banister and Mackett, 1990). It is unclear to what extent these effects have anything to do with the technology of vehicle size. Nor is it necessarily to do with deregulation: sceptics point out that minibus experiments pre-dated deregulation and minibuses are being introduced in a regulated London. However, I would conjecture that it has been the commercial pressure brought to bear by deregulation which has changed attitudes and speeded change.

Some operators have taken advantage of opportunities to do things differently offered by the technology of small vehicles. For instance, in Exeter the entire workshop side of the business was closed down and the main technical activity was contracted out on a performance contract to the Ford dealer.

5.5. Patronage will increase

So far the official statistics to 1988/9 indicate that patronage has not increased. Gómez-Ibáñez and Meyer (1989) and White and Turner (1990) both argue that, after standardising for the fares increases the decline in patronage is much as it would have been on the basis of secular trends, so the increase in vehicle kilometres appear to have been unproductive. We have seen that costs per vehicle kilometre have fallen considerably. But vehicle kilometres have increased whilst passenger kilometres have remained stagnant - so load factors have fallen and costs per passenger kilometre have fallen little.

This is the great disappointment of the policy. It is also a mystery. The explanation given by White (1990) is that the potential benefit of the extra vehicle kilometrage was not converted into better service quality. This was because of irregular running, or vehicle bunching, lack of service coordination, or confusion amongst passengers because of frequent changes, or some other factor. There can be no doubt that some of these factors played a part. For instance, some authorities put a great deal of effort into opposing deregulation and none into preparing for it with most unfortunate short term consequences for passengers.

However, it is not at all clear that this is a complete explanation. In most detailed case studies of which I am aware bus output increase was accompanied by an improvement in observed or estimated service quality. Banister and Mackett document the favourable small vehicle experience so far in terms of

patronage (although they can find little direct evidence on delivered service quality) and note that the full market potential for minibus operations has not yet been identified. Evans (1990) estimates «scheduling efficiency» in two case studies, defined as the theoretical average passenger waiting time if buses had regular headway on every route as a percent of the corresponding figure with bus times as they were. He estimates a 5 or 6 percentage point fall in efficiency since competition started which is not enough to vitiate the considerable increase in bus kilometres - yet measured patronage did not respond. He surveys other examples and he notes that «This gap between estimated and expected patronage is a puzzle, both at the national level and at the level of the case-study towns».

One problem is that outside the metropolitan area the pre-deregulation patronage data are often of poor quality and after deregulation they became commercially sensitive with all the difficulties that implies. In many cases the «before» data is the outcome of a single day's observation. In call cases «after» data is difficult because of problems of grossing up samples when the universe of bus routes is changing rapidly. To state the obvious, if a fundamental change like deregulation is to be evaluated then it is essential to ensure that good statistics are recorded both before and after the event - particularly passenger usage. It seems that we failed in this respect in the case of UK bus deregulation.

Evans (1990) finds that the most convincing explanation of the expected patronage results, and the one accepted by other commentators is that a known infrequent service has been replaced by an unknown frequent one, so that effective waiting times have not been reduced. It is interesting to note that software houses report an unanticipated boom in sales of vehicle routing and scheduling routines, and no sales of the real-time passenger information systems they were successfully developing before deregulation.

If this diagnosis is correct then the remedy is simple: inform passengers about the services. The white paper foresaw some of these problems but took the line that providing good information would be in the operators' own commercial self-interest. However, a precaution was taken: the purpose of the system of registration of commercial services and the 42 day rule was to provide a central source of information and to constrain the rate of change as a source of confusion to passengers. We have noted that managers seem to have been slow to adopt good marketing practice and commercial pricing. In 1984 the UK bus industry spent less than one percent of its revenue on marketing (Wooton, 1984) and there is little sign that this proportion has increased greatly. If there really is a dysfunction of the normal commercial incentives then there may be a case for some short term action by public authorities.

To a degree this has been done by some local authorities from the beginning, where they have accepted this as one of their functions (see Tyson, 1989, 1990).

5.6. *Coordination and integration would be provided by the market*

The white paper took a strong, free market line on the matters of coordination and integration of services. To the extent that these things are in passenger's interests they would command a price and would automatically be provided by the normal commercial process. Of course, this was a controversial proposition because it attacks the heart of the case for intervention in route planning and in ticketing systems.

It was always accepted that some central agency would be required to administer concessionary fares schemes. Local authorities have undertaken this and the schemes seem to have worked surprisingly well, with participating operators being willing to settle on the strength of sample survey information on usage of their services.

Other forms of integration, notably the integrated travel pass, have had a more mixed experience as one would expect since some gave more advantageous terms than others to pass purchasers. Tyson (1989, 1990) has reported developments in the metropolitan areas, which are particularly interesting because of their size and complexity, and because the former authorities had specific duties to integrate.

This another area where change and the emergence of market forces has been slower than was expected. In his 1990 paper Tyson notes that

for many passengers, the impact of any reduction in co-ordination of services has been lessened by the increase in the volume of service provided... there have been commercial opportunities for integration between bus and rail, although it has taken time for them to be recognised and the market to react. The role of the Passenger Transport Executives in securing services under contract has been crucial to the continuation of integrated services and has, in some cases, only had to be temporary until the services became commercially viable.

After a period in which many schemes were withdrawn the inter-availability of tickets between modes and operators has now been substantially restored (see Tyson, 1990, Table 3). A development of particular interest and reassurance to those sympathetic with the white paper is the development in Tyne and Wear of a separate company - jointly owned by the Passenger Transport Executive and the bus operators - to administer a travelcard scheme. It issues tickets and allocates revenues in accordance with agreements amongst its members on the strength of survey data.

5.7. *Safety*

Safety was a subject of great debate when deregulation was proposed. It was alleged that competition would lead to neglect of vehicle maintenance and personnel training. Foster (1985) lists the various irregular driving practices that it is alleged that took place before regulation in 1930. It is difficult to

know how common they actually were then; there does not appear to be any evidence on the point. Some predicted that they would reappear. The operator licensing system and extra vehicle inspection resources were responses.

In the event there are few reports of serious problems of this kind. The official accident statistics show a steady continuation of the previous decline in injuries and deaths per passenger kilometre. It seems that the quality regulation has been sufficient so far. Further, one should note that times are different and, in the UK, drivers are now better educated, trained and generally more responsible than they were in the 1920's.

5.8. Barriers to competition: collusion, predation, merger

The white paper took a simple line on competition. Regulation itself was the important barrier. Technical conditions in the bus industry were thought to be such that economies of scale, network effects, information asymmetries etc. would not enable significant barriers to be sustained.

This was not to deny that predatory practices had been observed in the trial areas, but it was argued that it would not be commercially sensible, or even possible, to ward off competition on many fronts simultaneously without the sustenance provided by a protected, regulated sector. Nor was it to deny the historical experience that under competition there was a tendency for territorial companies to form and that in the dense urban areas operators had formed associations.

The lack of concern about these matters was founded on several observations. We now have sophisticated pro-competitive legislation; corruption and criminal enforcement of cartels is not likely to be as much of a problem in the UK as it might be elsewhere in the world; and combines, associations and territorial monopolies would be so constrained in their behaviour by the threat of competitive entry that they would have to behave almost as if the industry were perfectly competitive - the market would be contestable, to use the modern terminology.

The propositions to the effect that the market is contestable were strongly questioned at the time by opponents of deregulation (see for example Gwilliam, Nash and Mackie, 1985a, b). It is certainly true that as the primary, binding constraint to competition was removed, other, less important constraints have become binding. What is not yet clear is whether they will turn out to be sufficiently damaging in practice and sufficiently resistant to removal as to destroy the case for deregulation.

Some of the present barriers were created deliberately for well-meaning reasons: for example, the 42 day rule for entry and exit, the registration system and the requirements for an operator's licence all conspire to ensure that an operator is large enough to operate a whole route himself and to sustain the risk of having to run a misjudged service for a period of time. Owner drivers are not encouraged by the operator's licence requirement. Gwilliam (1989)

and Beesley (1990a) have argued that the operation of concessionary fares schemes has constituted a barrier.

In spite of the confidence that company size would not matter it was decided, as a precaution, that the National Bus Company would be broken up into relatively small companies (some 200 to 300 vehicles each) and privatised in such a way as «to promote sustained and fair competition» [section 48(1) of the 1985 Act]. Privatisation was not a necessary accompaniment to deregulation as the situation in Scotland illustrates; there the industry was deregulated but not privatised.

The market value of the NBC was recognised to be small in the absence of regulation. Little official information has been given about the proceeds from the sale of individual companies. Press reports suggest that the early sales did indeed realise rather little. It seems that the later sales realised more than had been hoped for. Recently there has been much talk of the trading in ex-NBC companies and other companies. It has been alleged that one or two companies are aggressively buying up companies, leading towards concentration of ownership and auguring badly for competition. The general view seems to be that there is a clear tendency towards concentration in the bus industry. It is almost impossible to know for sure whether this is true; such official statistics as there are do not (yet) show greatly increased concentration. It seems that the compilers, like the pro-competition authorities, have to rely on what they can pick up from the specialist trade press (see Beesley, 1990b), from which it is difficult to gain a representative picture.

The wheels of the system for appraising mergers grind slowly but the Monopolies and Mergers Commission has now ruled on several cases establishing that two geographically contiguous companies would form a «substantial part» of the UK within the meaning of the legislation and that such mergers would be viewed with concern. Conversely, mergers not involving contiguous bus companies - of which there have been several - are regarded as being of little concern.

Evans (1990b) gives a useful survey of both the theoretical debate about economic models of competition in the bus industry and the actual outcome. In short, there is reason to believe that there may be real problems for the pro-competitive authorities to deal with, but their extent is, as yet, unclear.

Tyson (1990) notes a possible *perverse* effect of current competition legislation:

any agreements with or between operators had to be registered with the Office of Fair Trading and if any agreement was declared to be against the public interest the parties to the agreement had to terminate it or be prepared to justify its continuation before the Restrictive Practices Court. This affected a wide variety of «co-ordination» issues, including inter availability of tickets, co-ordination of timetables and joint operation of services. ...When a large number of such agreements (often in respect of specific services) were registered and eventually scrutinised a large number of operators were warned that they were anti-competitive. They thus had the option of testing them

in court [or amending] or terminating them, and all chose the latter course. Travelcard schemes organised by the Passenger Transport Executives and open to any operator who wishes to participate have been approved after detailed scrutiny of arrangements for revenue sharing, etc. In this case, it would seem that the law will inhibit this form of coordination amongst operators' services.

General UK competition law is presently under review. Beesley (1990b) gives a critique of the present state of competition law as it affects the bus industry and of the way in which it is interpreted by the Office of Fair Trading and the Monopolies and Mergers Commission. The present failings include the difficulty of detecting non-registration of registerable agreements; inadequate sanctions for non-registration; slowness of action; the fact that no penalty is incurred if a registered agreement is determined by the Court so long as it is not continued; the difficulty of defining and detecting collusion and predation; the difficulty of interpreting merger. Beesley suggests remedies, including the possibility of adopting the US sanction of triple damages to a party shown to have been injured by anti-competitive behaviour.

The conclusion would seem to be that the White Paper did under estimate the importance of *potential* failures of competition and that UK competition law is presently not ideally suited to dealing with problems that may occur. However, so far it is unclear how important competitive failures have been *in practice*. It seems unlikely that a great deal of damage has been done. A particularly difficult aspect is the framing of legislation and implementation which will not unintentionally hinder desirable, market led integration and co-ordination.

6. Cost Benefit Calculus

Evans (1990), White (1990) and others have carried out preliminary cost benefit analyses of bus deregulation.

In brief, their conclusions are that if increased vehicle mileage had been translated into extra patronage then the result would have been clearly highly favourable. As it was, the costs of running unproductive extra vehicle mileage consumed some of the benefits from unit cost reduction. White still shows a net benefit in the metropolitan areas but a slight net loss in the shire counties.

7. Concluding summary

The primary objective of the bus policy was to greatly reduce subsidies to local bus services, rapidly, without undue fares increases and without cutting service levels. In this it was successful: competition led to cost and subsidy reductions, and bus kilometres run substantially increased. Over 80 % of the network was offered commercially. Some items of subsidy were not subject to market discipline and these did not reduce.

The alternative of comprehensive tendering has been adopted in London. This has worked well and serves as a good model. But it also illustrates some of the practical drawbacks of tendering, in particular the relatively limited pressure it puts on costs. Experience in London and elsewhere shows the importance of obtaining a proper separation between ownership of bidding companies and the authorities offering the contracts.

It is too soon to come to a final assessment of bus deregulation.

It is difficult to generalise about the extent of on-the-road competition. There has been a substantial amount, but not as much as was hoped for by the Government. Competition for tenders has been strong. Traffic congestion has not been a problem.

There has been little change in the general level of fares, after the initial impact of subsidy reduction. The failure of price competition to emerge in local bus routes is unexpected.

Cross subsidy has been reduced and replaced by explicit subsidy. Smaller vehicles have fourished, as predicted, but they have not created differentiated markets.

Patronage does not appear to have responded to the increased service offered. We do not know exactly why this is so, but irregularity, change and poor information and marketing may well be factors. If so, then the benefits of deregulation could be greatly increased by improving on those aspects and a greater role for policy intervention may be indicated in this area.

Initially, some co-ordination of services and ticketing was lost, but it is now re-establishing itself as a commercially worthwhile thing.

Safety does not seem to have been compromised.

Privatisation of the publicly owned National Bus Company operators was successfully accomplished, as was the transition from regulation to deregulation. The local authority owned companies were separated, although they have not yet been privatised. The problems of barriers to competitive entry and anti-competitive practices were underestimated. This has not yet done too much damage, although it might in the future. The present pro-competitive legislation is too slow, inflexible and generally inappropriate. It is currently under review.

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Abstract

Subsidies reduced rapidly, without undue fares increases and without cutting service levels. Over 80 % of the network was offered commercially.

There has not been as much on the road competition as anticipated. Smaller vehicles have flourished but they have not created differentiated markets. Traffic congestion and safety have not been problems. Competition for tenders has been strong.

Patronage has not responded to the increased service offered. Irregularity, change and poor information and marketing may be factors.

Co-ordination of services and ticketing is now re-establishing itself as commercially worthwhile.

The alternative of comprehensive tendering has been adopted in London. This has worked well but it put limited pressure on costs.

The present pro-competitive legislation is too slow, inflexible and generally inappropriate.

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