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ON THE WRONG TRACKS: THE GOVERNMENT'S PROPOSAL FOR FRANCHISING PASSENGER RAIL

By Antony W Dnes

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Foreword

The privatisation of rail services in the United Kingdom, long foreshadowed, is now on the brink of reality, following publication of the Government's proposals early in 1993. Privatisation is now entering a new phase of development, confronting the problems which arise when the service to be de-nationalised is a loss-making one such as British Rail. In this Occasional Paper, Dr Antony Dnes argues that, while in general privatisation is a good thing, the particular proposals for franchising rail are flawed in consequence of an over-emphasis on public finance considerations. Lessons may not have been learned from the recent auction of independent broadcasting franchises. He argues that as a result the benefits of privatisation may not in this case flow to the consumer of rail services, or even to the taxpayer. What Dr Dnes terms the systems of 'rental bidding' for profitable routes and 'subsidy bidding' are criticised as likely to give rise to inappropriate bidding competition. Instead Dr Dnes proposes a system of 'price bidding' derived from the theories of Edwin Chadwick and also giving effect to the Government's recognition that rail subsidies on loss-making routes will continue to be justified on the grounds that rail travel brings environmental benefits. Such a system will make the bidding for franchises more competitive, ensure consumers receive the services at the best possible prices and facilitate a more thoroughgoing privatisation of the rail system than is envisaged under the current proposals.

Dr Dnes presents these important arguments with care and clarity in a language which is readily comprehensible to the layman as well as the specialist. He also elucidates the current proposals with great skill. Since the debate over the form of rail privatisation is by no means concluded with the publication of the Government's proposals, The David Hume Institute is delighted to be the means of offering a significant contribution to the formulation of public policy in this area. It is of course necessary to present the views here published as those of Dr Dnes alone, and to say that the Institute disclaims any commitment to any approach to the topic of rail privatisation.

Hector L MacQueen
Executive Director
March 1993

Introduction

In a recent White Paper and further consultative documents the Government has announced that it will privatize parts of the railway network.[1] It has also introduced a Bill to Parliament embodying these proposals. The controversial plans are for far-reaching changes to the rail system, which may not represent the best way of privatizing rail. Privatization is a good idea since it can encourage cost efficiency and improved responsiveness to travellers' needs.[2] However, current proposals are over-influenced by public-finance considerations, which should not exclude other issues. The Government's scheme could be amended to ensure that travellers receive the maximum possible benefit from privatization.

Many details remain unclear until the Bill has been through Parliament but some have been announced. Broadly, access to routes ('railpaths') will be sold off with private companies competing for operating franchises for passenger services. The estimated number of franchises has varied in Government pronouncements. It seems that seven franchises could be in private hands by April 1994.[3] In the rare instances where a rail route is profitable, an operating franchise will be auctioned to the highest bidder in terms of an annual rental fee to be paid to the authorities over and above the cost-based charges for access to the network. I call this 'rental bidding'. For the most part, rail routes are not profitable and franchises will be awarded to companies offering to accept the lowest annual subsidy on a route.[4] I call this variant 'subsidy bidding'. Freight and parcel services, which are expected to be profitable, will simply be sold off, with the new owners being expected to negotiate over charges for access to the network.[5] The franchising system has similarities with one already in place for broadcasting.[6]

In this paper, my main concern is with passenger services. I believe that auctioning can be used to improve passengers' welfare but that rental/subsidy bidding is not the way to go. A better result would come from applying the contract-management scheme first proposed by the Victorian social reformer Edwin Chadwick in 1859, which was developed in the 1960s by Demsetz for use with natural monopoly. In this scheme, which may still embody subsidies, bids are in terms of the maximum prices firms would charge for the service.[7] I refer to this as 'price bidding' in what follows.

The Aims of the Government

The Government has stated a number of policy objectives for its treatment of the railways. Foremost among these is '[improving] the quality of railway services by creating many new opportunities for private sector involvement'[8]. Some weight is also given to establishing a scheme that is 'responsive to the market' and to '[cutting] out waste and ... [reducing] costs'.[9] These aims are somewhat tangled up with the means of achieving them in both policy documents, but they are probably compatible.

The method of improving operating efficiency is to auction franchises, so as to '[maximize] private sector involvement in the operation of railway services'.[10] The private sector is seen as likely to be far more sensitive to market conditions than British Rail (BR). The Government accepts the need to subsidize most routes, as it subsidizes BR at present. Lest this be seen as an argument for closing most rail services, the Government takes care to justify continuing operation on environmental grounds,[11] although there is no clear statement of the value of environmental benefits.

The Government has unusually low financial expectations from this privatization exercise. It appears to have selected franchising because simple privatization is not thought feasible for a loss-making industry. This is a realistic view and some kind of franchising is a sensible direction in which to move. It is fair to summarize its approach as aiming at the reduction of subsidies whilst maintaining or improving services for travellers.

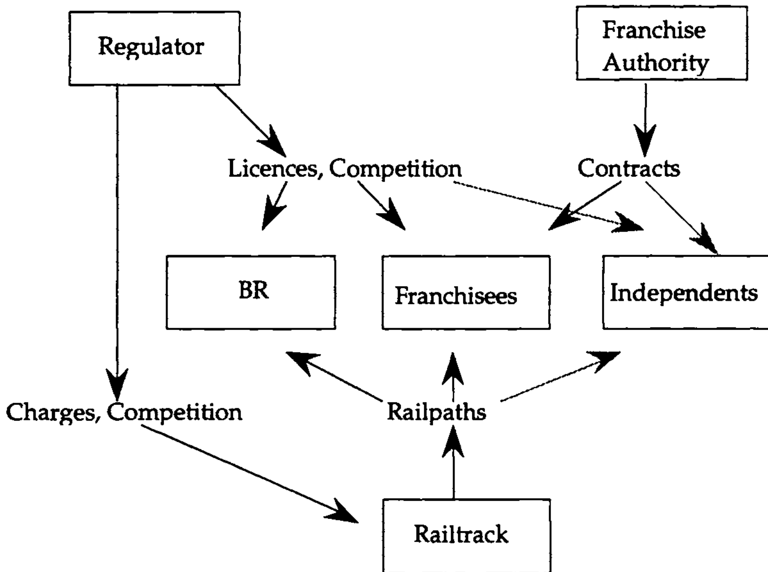
The Framework for Privatization

Franchising will create a distinct regulatory and institutional framework, which is shown in Figure 1. An independent Regulator will be established, modelled on the agencies created for privatized industries like telecoms and gas.[12] The Regulator will govern access to the rail network including the cost of access for franchisees and for other entrants, who may be permitted over time. Railtrack, a new nationalized company, will provide tracks, signalling and timetabling as a common carrier. Early plans for it to be part of BR, which would have persisted with a vertically-integrated monopoly

in many parts of the network, have been abandoned. The Government hopes eventually to sell off Railtrack.

The Regulator will issue licences permitting approved firms to compete for franchises or to act as independent operators, creating a quality threshold for the firms, and will also promote the interests of consumers and encourage fair trade. If, later on, routes were sold outright to the private sector, the Regulator would be responsible for price capping of fares if this were thought appropriate.

Figure 1 *The Government's Proposals for Passenger Rail*



A Franchising Authority will be responsible for the creation and monitoring of franchise contracts. It will group routes for franchising, define the level and quality of service for each contract, negotiate ceilings on fares where franchises have limited competition, determine the pace of the programme, and administer the auction that results either in the collection of franchise fees or the payment of subsidies. So far, it is clear that the starting quality and levels of service are to be those of BR.[13]

Seven routes have been earmarked, at the time of writing, to become BR-run models for the first franchised services.[14] These include three InterCity routes: Kings Cross to Edinburgh/Glasgow, Paddington to

Swansea/Penzance, and the Victoria to Gatwick express. ScotRail, the Isle of Wight line, the south-western arm of Network SouthEast to Portsmouth, Weymouth and Exeter, and the so-called 'misery' line between Fenchurch Street and Southend are the other four. Together, these routes account for one-third of BR's annual revenue of £2 billion. Although these need not become the first franchised services if private firms showed more interest in a different grouping of journeys, clearly the Government has indicated routes it is preparing for franchising. The model franchises could be transferred from BR to private firms by April 1994.[15]

Franchisees will be able to reduce or increase services as demand changes subject to rules laid down in their contracts. In principle, careful design of the adjustment rules should stop franchisees overbidding on services and/or quality to get a contract with subsequent opportunistic reductions based on claims that costs or markets have changed. The proposals are commendable for recognizing the need to be precise in advance about subsequent contractual adjustments.

Fees and subsidies will result from competitive bidding for the most part, although Passenger Transport Authorities and Local Authorities will continue to offer some subsidies. These arrangements make the Franchise Authority responsible for price capping a service like Network SouthEast, which has limited competition. This happens because the Authority may write pricing constraints into contracts if it wishes. For the most part though, franchisees will be left free to charge whatever prices commercial conditions suggest.

The Authority will enforce contracts with franchisees, with removal of a franchise being the ultimate sanction at its disposal. The general policy is for the Regulator and the Authority to be able to introduce independent operators into the system if service turns out to be unsatisfactory. The franchises are not to be exclusive.[16] This might be a useful device, capable of encouraging competitive pricing and decent service quality, depending on how it were used by the authorities and whether independents emerge. However, the Government has promised to limit competition for the 'first-generation' of franchisees to help them become established.[17] There must also be doubts about the availability of any longer-run competitive threat from independents. For these reasons I have shown independents in dotted outline in Figure 1 above.

It is not clear exactly how the Government sees the role of any independents. Is it to provide potential competition over the rental/subsidy or over fares and/or service quality? As I explain below there is a conflict between rentals/subsidies and fares.

The franchising procedure will not necessarily be identical for all cases. The Government rejects the idea of a 'universal template'.[18] Once the Franchise Authority decides upon a grouping of routes and given usage-related charges from Railtrack for railpaths, licensed firms will be invited to obtain information on service requirements and provide details of themselves. The Franchise Authority will then draw up a short list of suitable firms. The firms passing this qualitative hurdle will then bid for the franchise in terms of the maximum fee they would pay for profitable routes or in terms of the minimum subsidy each would accept to run a loss-making service. It is an example of a first-price sealed-bid auction in either profits or subsidies.[19] Bids take the form of draft contracts with the Authority and with Railtrack, which will collect any eventual rentals. Subsidies will be paid by the Authority either to the franchisee, or directly to Railtrack.[20]

The Government has distinguished between 'first-generation' franchising and the longer term. As mentioned, it has stated its intention to 'moderate' competition from open-access operators, during the first generation, 'only to the extent necessary to ensure the successful transfer of British Rail's passenger services to the private sector'.[21] Exact details of the protection from competition will be given in individual franchise agreements. There is no hint yet over how long the local-monopoly policy will last.

A further difference between the first generation and the longer term arises over the manner of bidding. Initially, the Franchise Authority will determine the routes to be franchised and underwrite Railtrack against losses. For first-generation franchises, Railtrack is expected to state its user-related (cost-based) charges before bidding commences and to inform the Authority of a fixed charge. The fixed charge embodies a contribution to common costs, which the Government's advisers (Coopers and Lybrand) argue cannot be attributed to any particular user. It is not yet clear what accounting rule will be used to allocate common costs.[22] Operators' bids will make a contribution to those common costs, sometimes leading to a surplus for Railtrack on a route and sometimes giving losses requiring subsidy.

In the longer term, Railtrack will play more of a role in determining access to routes. User-related charges will continue to be published at the start of bidding. Railtrack will forecast likely bids and will then negotiate a subsidy, if necessary, from the Franchise Authority.[23] It will bear more risk compared with the first generation. Railtrack keeps the bid plus the subsidy.

BR is prohibited from competing with private companies for franchises, although its workers and managers can bid as separate management-buyout units. BR provides the service if no acceptable bidder is found. Operating franchises are currently planned to be for periods of five years but there need not then necessarily be a repeat of the full auction, as the Authority may simply try to reach an acceptable renewal with an incumbent franchisee who has performed well.[24]

Franchisees will have access to existing stations, which are to be owned by Railtrack.[25]Rolling stock will be bought or leased from the current BR stock, or may be newly built. All firms will be expected to provide through ticketing, which will require the invention of a revenue-allocating mechanism for the system.

If franchises do transfer between firms, the Authority will have the right to purchase highly specific assets subject to an arbitrator's valuation if franchisees cannot agree on terms. In principle, this should inspire confidence in franchisees over investing in long-lived assets that are highly specific to particular routes, because incoming replacement firms would be prevented from buying facilities at 'fire-sale' prices. Sunk costs arise on highly specific assets because the investment expenditure cannot be recouped if the business fails. An example of such sunk investment would be some expenditure on stations, if other firms had no interest in competing with an incoming franchisee for the facilities or there were high costs of making a transfer. Rolling stock is not sunk, however, as it can easily be moved. Much of the debate about rail privatization in the press has questioned long-term investment incentives.[26] Actually, there is an attempt to deal with problems of asset transfer and create longer-term incentives in the proposals and criticism in this area is probably misplaced.

In practice, it is anyway unlikely that there will be severe problems of creating investment incentives for long-lived assets. This is because most investment by franchisees will be in highly mobile

rolling stock. Although this is long-lived, it is also on wheels and will not be sunk into a particular franchise. The market for rolling stock should, by itself, alleviate worries about long-term investment incentives. If stations were shared by franchisees - which seems likely - then much the same could be said about the prospects for resale of station space. Safety regulation will be the responsibility of the Health and Safety Executive, which anyway incorporates HM Railway Inspectorate. Safety assessment is part of the licensing procedure as well as a continuing issue. Safety is unlikely to emerge as a major issue.

A Fundamental Problem

Rental/subsidy bidding can at best transfer profits to Railtrack (and ultimately the Treasury) or reduce subsidies. It does not provide sufficient incentive to pass on cost savings to passengers. It is necessary to consider carefully the interaction between costs and revenues for a route in order to examine this issue very clearly. In the spirit of the Government's proposal, in what follows, I require private firms to offer at least the quality and level of passenger services currently offered by BR.

Rental Bids for Profitable Routes

Let us suppose that BR makes a profit on some bundle of routes. Also assume that private firms have lower costs for any level of passenger service and could make larger profits on the route, carrying any specified number of passengers. Costs include user-related payments to Railtrack. The firm with the lowest costs of all can offer the largest annual rental fee and win the franchise, whilst carrying at least the previous number of passengers. In principle, the franchisee could hand over as a rental fee any profits it makes above the minimum return it requires to stay in the rail business.

The minimum return required is whatever is available from investing, on average, elsewhere in the economy and might be expected to correspond to interest rates. We need to distinguish two components of accounting profit to see how rental bidding works. 'Normal' profit refers to the minimum profit a franchisee would require to continue supplying the service. It is really an (opportunity) cost of production. Any additional accounting profit is 'above-normal' profit, which is available to pay a rental fee. In competitive industries, firms cannot make above-normal returns for

long periods of time, since this would increase supply from other firms, depress price and reduce profits. Persistent above-normal profits require restrictions on entry into an industry.

What does rental bidding mean for passengers and for the Franchise Authority? The Authority should extract (for Railtrack) at least the above-normal profit that previously went into BR's general funds. This may have been used to cross-subsidize loss-making routes or for a variety of possible investments. The Authority may do better if the winning franchisee has lower costs than BR, and honestly declares its greater profits as its rental bid.

However, if the franchisee felt there were no real competition for the route, it need not bid all its above-normal profits to obtain the franchise. For example, if the franchisee knew that other firms had higher costs and would make the same profits as BR, it could bid an amount just one pound higher than BR's profits and win.[27] Rental bidding might fail to extract all above-normal profits from a franchised route.

This begs the question of what adequate bidding competition would look like. It is clear that there must be at least two firms, who either know they have similar costs, or who have no idea at all of each other's costs. This implies that the best strategy is to bid maximum profits to win the franchise - then at least the firm knows it does not miss the opportunity to make a normal return on the business. A large number of bidders would create the same kind of incentive. There must be a danger with the Government's scheme that few bidders will emerge and that they will have a good idea of each other's costs and likely profits. This may well have happened with some ITV franchises.[28] Much recent press comment in the UK has expressed doubts about the number of franchisees likely to emerge.[29]

The issue for passengers is whether fares fall or not. To take an example, it could be that profits are maximized for both BR and the franchisee at the same fare, holding service quality constant. This would happen, for example, if the level of fare were dictated only by the need to be competitive with an alternative mode of transport such as coach travel. However, even if the franchisee did find it profitable to lower the fare to sell more seats, it would never pay the franchisee to reduce the fare to the lowest level possible. The franchisee has to offer as much rental as competition over bidding requires. Therefore, there would always be scope to reduce the fare

if the franchisee were not required to pay the rental.[30] If fares fell, assuming demand to be responsive to price changes, this would also imply that more passengers used the service.

The Government has promised to protect early franchisees from entry. However, even in the longer term, it is unlikely that the Authority could use the threat of introducing further operators at a later date to push fares down to a minimum without this conflicting with collecting rentals. If it has extracted all above-normal profit, fare reductions would eventually cause the franchisee to close down. If a franchisee keeps some above-normal profits after bidding, it would realize that an independent could come in, charge a lower fare on the same level of service, and pay the Authority more rental. The franchisee will therefore increase its rental bid so that the independent cannot lower price without lowering its ability to pay a rental. Lowering the rental is contrary to the Government's intentions.[31] If this is how post-auction competition might be expected to work, and the Government has not made this clear, it really has the same effect as earlier bidding competition.

If a firm came along that could increase the rental and lower the fare, based on lower costs, the Authority might well let it in. However, this would not lower fares to the level of the entrant's average passenger costs plus an allowance for normal profit: the entrant is paying a rental. It is most likely that, at least after another franchise round, any gain in fares would be lost as the rental rose to safeguard the entrant's position. Potential competition from later, more efficient entrants, if it existed, would still leave passengers paying relatively high fares.

The requirement on the franchisee to supply at least the same level of service as BR implies that fares cannot go up. If BR were not maximizing profits because it had chosen to lower fares, an obvious way for a franchisee to increase its profits and its bid would be to raise fares. However, to produce this effect the franchisee would have to reduce output if demand were at all responsive to price.

There is one possible consequence of this type of bidding that has been overlooked. If BR were just making a normal profit before bidding, only firms with lower costs and able to make more profit would bid. They would bid only their above-normal profits (actually, minus bidding costs) which could be less than BR's previously recorded profits. Firms will not bid the normal component of profits as they need this to be attracted into the route.

It is not clear what the Government's intention is in such a case, or if it realizes it could arise.

It is also possible that if BR had the lowest costs the franchise could still go to a higher-cost private firm. This could happen because BR cannot bid for the route. If the higher costs of a franchisee just ate up some profit and left fares unaltered, and the franchisee could still pay a rental, would the Authority hand over the route? Since most rail business is not profitable, cases like these may not be of great current practical significance but there is an issue as resources could be wasted.

It is fair to summarize the impact of the Government's proposals for rental bidding in the case of profitable routes as at best leading to a transfer of profits (ultimately to the Treasury). This may not happen properly if there is inadequate competition at the bidding stage. There may be some limited incentive for fares to be reduced by subsequent entrants, although the role of these is not clear in the Government's proposals and the Government has committed itself to protecting early franchisees from entry. Anyway, franchisees must carry the rental fee and cannot reduce fares to a level possible for a firm with the same costs that only required a normal return on its investment. The system of rental bidding gives the franchisee an incentive to act rather like a classic monopolist and maximize its profits, albeit that some or all of these go to Railtrack.[32]

What about the effect on taxpayers? Will they benefit from the transfer of profits to the Treasury? Before privatization BR would be using profits from a route to subsidize loss-making routes or to fund general investment. This is equivalent to paying money to the Treasury, on the assumption that otherwise the Treasury would be funding those activities. If a franchisee makes a bigger contribution to the Treasury then it might be thought that taxpayers would be better off, since they could pay lower taxes or receive greater social benefits.

However, the individual's experience of government in the twentieth century is that it grows and expands its tax base and expenditure. Furthermore, its patterns of expenditure have the characteristics of fiscal anarchy, rather than reflecting the carefully considered targeting of benefits. There seem to be few, if any, cases of governments cutting taxes back. For example, the reductions in income taxes in the UK in the 1980s were accompanied by increases in indirect taxes. The chaotic nature of government expenditure

patterns shows particularly strongly when benefits are paid to the wealthy.[33] Any cost savings, transferred to the Treasury as rental bids, will probably not benefit taxpayers but will simply become lost in a fiscal maze.

Even if taxpayer benefits could be accurately discerned, they would still arise as a result of above-normal profits on routes. Fares are higher than they need be if firms ran the services whilst earning normal profits, behaving like firms in regular competitive industries. As I show below, price bidding could give these more favourable fares. Therefore, it is relevant to comment critically that support of rental bidding embodies the judgement that taxpayers should benefit at the expense of passengers, which is equivalent to the idea that monopoly profits earned at the expense of consumers are a good thing.[34] We should not get bogged down in this issue as the routes are not expected to be profitable. I shall comment below on possible taxpayer benefits from reducing subsidies.

Subsidy Bids for Loss-making Routes

The Government will award loss-making routes to firms accepting the lowest subsidy for providing at least the same service as BR. Since most services are loss-making, this is the most important aspect of the proposals.

Suppose there is a local commuter line that makes losses. BR receives an annual subsidy but private firms have lower passenger costs and could manage with less subsidy. No firm can actually run the line unaided at a profit. The required subsidy allows the firm with lowest costs to make at least a normal profit. The Government intends bidding to be in terms of total annual passenger subsidy.[35]

Therefore, from the point of view of the Treasury things seem clear cut. The existing level of service is obtained at the lowest possible cost, as long as the least-cost firm has an incentive to bid the true value of subsidy that it requires. This happens if it has sufficient competition at the bidding stage. Of course, if private firms by some chance did not have lower costs than BR, then - also similarly to the profitable case - the system might increase subsidies as BR cannot bid. Perhaps the Franchise Authority can be expected only to award a franchise when the subsidy falls compared with BR.

If there were inadequate competition at the bidding stage, the least-cost firm could offer one pound less than the subsidy required by its

nearest rival. If, for example, all other firms have higher passenger costs equal to BR's, the winning firm pretends to have virtually the same costs and asks for almost all of BR's old subsidy. Once it has the franchise, it enjoys the difference between its costs and BR's as profit. In this worst-possible case, the Franchise Authority transfers public money to create profits for franchisees. There must be a real danger that this will be a result of some of the planned auctions, given the worries voiced over the number of prospective bidders.

For passengers, the most likely result is that fares will not be altered by subsidy bidding. Fares cannot go up because of the contractual requirement preventing the level of service, including number of passengers carried, from falling. Furthermore, a loss-making route is likely to be associated with stiff competition from other travel media. This will mean that it is a question of providing rail travel at fares comparable to, say, coach travel -perhaps with an allowance for any speed advantages rail may have. If this limit exists, it is a more fundamental reason why fares would not rise and may well be what explains the need for subsidy in the first place.

Fares would not fall since the firms are asked to bid the minimum subsidy to provide at least the current level of service. For most types of average passenger costs, the total required subsidy should increase as more passengers are carried.[36] It seems the Government is interested in minimizing its total subsidy payments. The franchisee will do this by sticking to the minimum possible required output, which is the existing level of service inherited from BR. There is then no reason for fares to change as neither supply nor demand has changed.

It is also unlikely in the subsidy case that the Franchise Authority could use the threat of bringing in independent firms to lower fares. Suppose a franchisee could pay more rental. A later entrant with the same costs could offer a lower fare for a smaller subsidy for the same service. Realizing this, the franchisee will bid a still smaller required subsidy at the start. The Authority will not now have an interest in the possible entrant. After all, any firm can lower the fare by increasing the subsidy. Potential competition increases the incentive to minimize the subsidy rather than the fare.[37]

Again, it is worth noting that the Government has promised to protect first-generation franchisees from entry. An implication of this is that the incentive for early franchisees to bid their true subsidy requirements is diminished. Similarly, in the profitable case, there is

less incentive to bid true maximum rentals. Interestingly, the Government's wish to protect profits by limiting entry will conflict with its wish to extract profits or minimize subsidies.

The only real advantage of subsidy bidding is that it may reduce the Government's spending on the existing level of service for loss-making routes. The question then follows whether this benefit will be passed on to taxpayers, or whether it will - as I suggested in the analysis of rental bidding - simply remain in the government-spending maze.

This conclusion on subsidy minimization may be over-optimistic anyway. Subsidy bidding is dependent on the costs achieved by franchisees, which - in turn - depend on Railtrack's access charges. If cost control is lax at Railtrack and/or regulation fails to hold user-related charges down, subsidies may be unnecessarily high. A similar point could be made for rental bidding, where high downstream costs might erode any profits.

Subsidies in the Government's Proposals

The Government implies that minimizing public subsidy to an activity like rail is a worthy end in its own right. A little thought shows this is not so. If this were the object, then we have an argument for closing railways. By closing all the loss-making lines, which is nearly all of the system, the subsidy becomes zero and is clearly minimized.

The Government is careful to point out the environmental benefits of rail travel as a justification for preserving them.[38] Therefore, what is really needed here is an estimate of the value of these external benefits, in terms of the time savings to typical citizens from reduced congestion, and reductions in carbon-monoxide, sulphur and lead pollution. The explicit (even approximate) valuation of environmental benefits could then form a basis for the subsidy offered on a particular route.[39] This cannot be introduced into the subsidy bidding scheme selected by the Government.

If the current subsidies to BR are appropriate given the environmental benefits from rail, then logically the Government should offer these to whoever supplies the service. Strictly speaking, consideration might even be given to also subsidizing *profitable* routes to encourage lower fares and a switch to rail, if the Government is serious about obtaining the environmental benefits of

rail. Ideally, we require a scheme to incorporate both the travel and environmental benefits of rail into comparisons that assess how worth while a service is. The Government's proposals do not encourage this.[40]

The Government's treatment of subsidy is consistent with a vision that it is somehow trapped into the current provision of rail service. This is a bit like treating the system as a giant toy train set bought for a favourite child by a miserly parent. Perhaps the Government would like to abolish rail subsidies altogether but fears losing the votes of commuters. Its policy can be explained by a private-interest view of government regulation.[41]

Minimizing subsidies on a given level of service makes no more sense than cost-minimization, on an arbitrary output, for a private firm. The firm in fact needs to maximize its profits, which involves comparing costs and revenues. When looking at rail privatization, we need to find levels of passenger service that give the greatest surplus of total benefit over total costs. This means adding passengers as long as the benefit exceeds the change in passenger costs. If some of those benefits are environmental, they need estimating and incorporating into the comparison. Subsidy bidding will not do this.

Price Capping

Before moving on to consider an alternative franchising method for rail, price bidding, I wish to examine the impact of price capping on the Government's scheme. Price capping refers to a system such as the RPI-X system operating for British Telecom, where maximum charges are regulated.[42] It could be helpful for rail if it did not suffer from the problem that the authorities would need an initial idea of attainable costs for private firms.

I look first at price capping and rental bidding for a profitable route. Obviously, all firms must promise fares at or below the price cap. If the winning firm faced adequate bidding competition, it would hand over its above-normal profits as a franchise fee. If the price cap were set just above the winning firm's passenger costs, the franchisee would make only normal returns and passengers would enjoy rock-bottom fares. If the firm were not subject to adequate bidding competition, the winning franchisee could retain all or some of any above-normal profits but the price would still be capped.

However, price capping is not such a panacea as it at first seems. The problem is that you need to know where you are heading in the first place. For example, the price cap can only be set just above the passenger costs of the lowest-cost franchisee if you know what these are. It is unlikely that this information would be available at the start of a scheme.

Price capping could also be used, in principle, to improve the results from subsidy bidding. For example, the authorities could impose a price cap and see what passenger subsidy the franchisee would require to produce at least the current output from BR. The firm would state the minimum amount and would make normal returns provided there were bidding competition. The problem again is that the authorities need to know the minimum possible level of costs to judge a position for the price cap in relation to likely subsidy bills.

With both rental and subsidy bidding, the franchisee would meet full passenger demand at the price cap, as it is better to make more profit from a normal return over the largest possible output. If the price cap were effective in lowering fares, which it would be if it ensured bare cost-covering, more passengers would be carried. Lowering the fare this way could also be used to reflect environmental benefits from rail travel. However, less profit would go to the Treasury or more subsidy would go to the franchisees, which may not fit in with the public-finance aims of the Government.

Price capping is not a large part of the Government's plans. For the most part, franchisees are to be left with freedom over their pricing. Price capping is planned only in cases like Network SouthEast (a loss maker) where there is a perceived lack of outside competition. Even so, I would hold back from recommending extension of price capping because the required information on costs is unlikely to be available. The lower limit for a price cap could only be approached clumsily over time.

An Alternative Franchise Scheme for Passenger Rail

A system of price bidding, following Chadwick's suggestion, has much better potential. In the simplest case, firms bid in terms of the lowest passenger fares they would charge on a route. More usually there would be a bundle of routes, because even a single line comprises a number of possible journeys. Then it would be

reasonable to look for the lowest bid in terms of a distance-weighted fare index for the bundle of routes being auctioned. However, it does not hurt to illustrate price bidding with the simplest case of a one-stop route with just one class of fare.

Suppose that the route is potentially profitable. We wish to find the least-cost firm and motivate it to carry passengers at the lowest possible fare. However, it is no use just asking for bids in terms of a fare from each firm because costs per passenger may vary with the number carried. Therefore, firms are asked to bid the lowest fares they would accept, conditional on the number of passengers carried. They are given a number of possible figures for passenger demand to which to work. It would also be a good idea for the Franchise Authority to specify adjustment rules for cost changes before bidding occurred. The franchisee would not be entirely free to work to the accepted fare schedule as market conditions changed, but would have to show that conditions were as claimed. Initial conditions would also have to be clearly agreed with the Authority. I discuss this type of enforcement issue below.

If it has sufficient competition at the bidding stage, a firm will bid its average passenger cost, with an allowance for normal profits, for each possible market size as a schedule of fares.[43] Fares would be lower than is the case with rental bidding because we are not asking firms to pay rental fees based on maximum profits, where these could include above-normal returns. In fact, the winning firm has to price in much the same way as if it were in a perfectly competitive industry.

Price bidding selects the most cost-efficient firm equally as well as rental bidding. It therefore realizes the Government's aim of introducing private-sector cost efficiency into passenger services. If a franchisee's costs are lower than BR's, and even if BR only made the same minimal (normal) profits per passenger acceptable to the franchisee, fares must fall for passengers. Furthermore, it will pay the franchisee to meet the full demand at a fare as this increases the total value of its profits. Remember, the franchisee's fare is its costs plus minimum required profit per passenger: adding passengers adds profit. As the fare is lower, passenger demand may expand compared with BR's operations.

Passengers are clearly better off than under rental bidding or the prior regime of BR. It is also clear that the Franchise Authority extracts no profits so that this is not, generally, a scheme that will

raise continuing rental income for the Treasury.[44] However, the sale to operating franchisees of assets like rolling stock will still raise funds for the Treasury. Also, user-related access fees would still be paid to Railtrack, and be passed on to the Treasury if Railtrack remains nationalized. Taxpayers could lose out compared with rental bidding, if there were significant rentals that really meant lower taxes for them. I have already raised questions about whether rental bidding would actually transfer fees to taxpayers and whether they should benefit from higher fares.

This last point is well understood by the Australian Trade Practices Commission, which recently suggested price bidding as a means to introduce private-sector incentives into the ports:

> Rental for leased premises should not be put to bids as that would result in the Port Authority appropriating monopoly [profits] ... the lowest scale of service charge should be the criterion for the award of a lease.[45]

This case is closely analogous to rail in the UK. Private stevedore firms would move assets onto sites rented from a public authority retaining responsibility for waterfront infrastructure. The firms would pay fees to the Port Authority reflecting its costs but win their leases by bidding low scales of charges for service delivery. In the rail case, private firms move assets onto a network of tracks and signalling.

If a firm did not have adequate bidding competition, it might be able to avoid offering passengers the lowest schedule of fares that would cover its costs. It could offer fares just lower than its nearest rival's cost per passenger and pocket some profits. However, this is a better outcome for passengers than 'bidding failure' under rental bidding. Under rental bidding, the least-cost firm charges a higher price reflecting the nearest rival's costs *plus* the profits the rival would pay to the Franchise Authority.[46] The imperfect result under price bidding stands a better chance of being acceptable, even if it were not possible to increase the number of bidders or if it were too costly to introduce further controls.

A benefit of price bidding is that it works like a self-revealing price cap. There is no need to set a separate price cap to transfer benefits to passengers, as the Chadwick procedure takes care of this.

Price Bidding with Subsidies

It is relatively straightforward to introduce environmental subsidies for routes, if this were desirable. Firms are asked to bid minimum prices after receipt of subsidies. This may happen for both loss-making or profitable routes.

A Chadwick procedure would force the Franchise Authority to be specific about the environmental benefits attached to a loss-making route. Bidding then selects the least-cost franchisee who is best able to provide these benefits. One role for the Franchise Authority, or of a special sub-division of it, should be to gather estimates of the environmental savings from a typical passenger mile travelled on a route. This figure would form the basis of the subsidy to be clearly stated before price bidding commenced.

It would also be possible to add in subsidies to support concessionary fares for certain social groups such as senior citizens. However, it should be remembered that this is not an efficient way of helping people, as it would be better to increase their incomes whilst allowing them to decide how to spend the money.

This approach would be greatly preferable to the current unseemly situation in which the Government appears caught up in an electoral-cum-regulatory game. Subsidy minimization at arbitrary passenger levels creates an impression of bargain-hunting for electoral support from commuters.

Introducing Price Bidding Given the Government's Proposals

Could price bidding be introduced into the privatization framework proposed by the Government? This would appear possible even at this late stage, particularly as the Government has left itself room for manoeuvre in dismissing the idea of a universal template for franchising. There is some room for experimentation. The costs of price bidding are likely to be similar to those for rental/subsidy bidding.

There are some extremely useful parts of the current framework. The Franchise Authority could as easily operate a price-bidding scheme as one based on rental/subsidy bids. The plan for it to have powers

of compulsory purchase for long-lived assets at the close of a franchise contract, subject to independent valuation, is an excellent one. This would also be required with price bidding. It would be even better if independent asset valuations could occur at the start of contracts, along with agreement over depreciation rules. This would inspire maximum confidence over long-lived investment for franchisees. However, the Authority should not be obliged to exercise the power of compulsory purchase. It should be a facility available to sort out conflict between successive franchisees, if needed. It is better that there should be a possible penalty for franchisees who fail and wish to leave the business, in the shape of any costs attached to selling off their assets. This is a kind of 'hostage' that should help to make the firms' owners as careful as possible in checking that they really can deliver the promised service levels at the agreed prices.

It should not be necessary to force the Authority to buy assets if it ends a contract. This might be thought of as a good means to protect franchisees against attempts by the Authority to pick up assets at fire-sale prices and move them to replacement franchisees on a more favourable contract. As long as the Authority is covered by valuation and arbitration requirements whenever it purchases assets, there can be no incentive for such behaviour.

Independent valuers and arbitration mechanisms work well for similar problems in private-sector franchising.[47] The possibility of arbitration would also minimize the risk of the Authority trying to use its weight to obtain lower fares once a contract were running, through some abuse of a cost-adjustment rule. Again, this encourages franchisees to have confidence over long-term investment.

The Franchise Authority would remain responsible for establishing service contracts with franchisees. These should include specific values for any subsidies and rules for incorporating cost changes, as I have commented. Although it should be unnecessary, it would not hurt to make at least BR's prior service levels a formal requirement. Specific quality requirements for services could also be written into contracts. Having accepted a schedule of fares, the Authority would agree with the franchisee on the initial fares for particular journeys. Thereafter, the franchisee would have to demonstrate changes in market conditions to move to another fare (which must either come from the schedule or incorporate a permitted price change), or to alter the nature of the service in any way. If the Authority and

franchisee could not agree, the dispute could go to binding arbitration. Costs should be met by the losing party in a disagreement to deter unfounded claims.

This procedure should go a long way towards preventing the classic problem of overbidding, thought to be attached to contracting-out exercises. Overbidding occurs if firms offer a low price to obtain a contract, and then subsequently claim that costs have changed or the market has altered in unanticipated ways. They might seek price increases knowing that finding a new contractor, or going to court, has high costs for the contracting authority. As *The Times* columnist Simon Jenkins recently advised: 'You can blame any end-year deficit on Railtrack performance and threaten to cut services'.[48] There is also a danger that franchisees might reduce post-contract service quality as a less obvious form of overbidding. It is better to have adjustment rules agreed explicitly at the start of the contract. Use of the rules is then subject to third-party governance by arbitration.

There are some grounds for optimism that franchisees would carefully avoid acquiring reputations for overbidding. They are likely to be involved in subsequent franchising rounds, or in other business ventures. Reputation is going to be important to them. Recent research suggests that reputation effects do hold overbidding in check.[49] Overbidding is anyway a problem that could also affect rental/subsidy bidding, if franchisees tried to reduce their rental or subsidy commitments.

The period of five years for a franchise contract suggested by the Government is probably about the right length, as long as asset transfer conditions are carefully constructed. However, the formal franchising procedure should be repeated when contracts end. The Government's failure to commit itself to this gives it the problem of how to decide whether a renewal auction is needed or not. This discretion could encourage attempts by franchisees to 'capture' the Franchise Authority and persuade it to leave them alone. It has to be worth the administrative costs to have subsequent award criteria right out in the open. This makes sure that competitive pressures are maintained.

The Regulator has a role to play in enforcing contracts. There should be the greatest possible emphasis on its independence from the other parts of the rail system, including the Franchise Authority. The arbitration facilities discussed above, could be located with the Regulator. In a highly disintegrated rail system, it is important that

all firms should have access to economical methods of dispute resolution. Other roles for the Regulator are the currently planned ones of operating competition policy for rail and, possibly, price-capping Railtrack if it remains publicly owned.

Quality Issues

The Government has stated one of its aims as increasing service quality to travellers. It is unclear how this is to come about. This might be quantified in terms of the average number of delays or cancellations and the condition of rolling stock (*e.g.*, more first-class carriages). It is easy to handle this issue within a system of price bidding. It likely that quality will become an issue as private firms will probably wish to try out different price-quality combinations.

Firms would bid for contracts of specified service quality. This implies that it would be fine to allow a different quality of service to start, as long as renewed price bidding occurred. For example, a franchised route might be running at BR's old service quality when a new firm comes along wishing to offer a higher standard of journey. If this involves the same fare, passengers would clearly benefit from entry. However, a bidding round should ideally be held for the right to offer the better service to be sure that it is being obtained at the lowest possible fare.

It would be perfectly safe to allow in a newcomer who wished to provide a higher quality service at a higher fare, provided the old service is still available as an option to travellers. Otherwise there is a danger of quality being used simply as an excuse for high fares. Again, there should be bidding over the new service. It might also be necessary to consider bids for jointly running the different quality services, if they are complementary, as explained below in the section on 'cherry picking'.

However, rental/subsidy bidding does not handle the quality issue well. Is it really likely that the Franchise Authority would be presented with a choice between a high quality service and a more basic one? Even if a high-quality service paid more rental than a basic one, more rental still could be paid or more profit could be retained by cutting quality. This suggests that current standards will tend to stick.

The Government has already clearly stated that there will be a 'first-generation' period, of unspecified length, during which open-access

competition will be limited.[50] The first round franchises will be guaranteed local monopolies. This is a sad reflection of the incentive structure resulting from rental/subsidy bidding. All incentives focus on the profitability of franchisees, which is effectively transferable to the Treasury, regardless of how this is achieved. If necessary, competition is to be statutorily limited.

No such limits on competition would be required with price bidding. The focus here is on rock-bottom pricing whilst leaving franchisees a normal return on investment, after receipt of subsidies reflecting environmental benefits. Subsequent entry certainly causes no problems when it brings additional services and existing franchisees are aware of the possibility.

Railtrack

Consideration should be given to extending privatization to Railtrack and not just confining it to operating franchises. If this were done, it would be essential to base privatization on price bidding. Rental/subsidy bidding would encourage severe problems of monopoly behaviour.

It may well be that conventional privatization techniques are not feasible where loss-making firms are involved. In addition, governments may rightly worry about finding one permanent private owner for the entire railway network and bargaining periodically over subsidies. However, price bidding applied to the various parts of the system, including Railtrack, can cope with these problems.

It does not matter whether there are losses or profits for a franchise; price bidding with a possible subsidy still finds rock-bottom prices for passengers. It would also find rock-bottom track charges from Railtrack. Therefore, there is no obstacle to extending such contract management to tracks and signalling. However, rental/subsidy bidding for Railtrack would encourage a franchisee to price track services to extract all possible above-normal profit from the operating franchises, and would be undesirable. This is especially true as Railtrack would be in the classic position of an 'upstream' supplier of monopolistic services to 'downstream' firms. This incentive might also operate for Railtrack under nationalization, of course. It would not matter how willing the downstream franchisees were to charge rock-bottom prices to passengers, Railtrack could always raise fares by raising its track charges. Assuming that

Railtrack is best kept intact for reasons of scale economies, it must be either price capped or franchised using price bidding. The Government has indicated a wish eventually to sell off Railtrack.[51]

Furthermore, there seems no reason to preclude firms with operating franchises from bidding for Railtrack, as long as this is in a price bidding scheme where they are obliged to service all operating franchisees at the same rock-bottom charges. In fact, more bidders would give better results. A periodic Chadwick auction of the Railtrack contract would have to occur ahead of auctioning operating franchises to put access charges in place. The bidding could be for the lowest value for an index of track charges, with weighting set in advance as a policy decision. Bidders for Railtrack would have to allocate common costs of the network to routes to form their bids. A tie between bidders could be broken by random selection. Rules over asset transfer if an incumbent lost a subsequent round would sustain long-term investment incentives.

If Railtrack were allocated by price bidding, there would be no need for the Regulator to impose a price cap on track charges. Railtrack's self-revealed commitment to rock-bottom charges would prevent it from taking a monopolist's advantage over the smaller operators in the rail system.

The public finance implication of privatization is that (ultimately) the Treasury would receive a payment for Railtrack's assets, based on independent valuation. There would be no question of simply giving Railtrack away for promises over charging. However, there would be no continuing receipt of track charges by the Treasury unless the Franchise Authority chose to charge the Railtrack franchisee for the track and signalling assets this way.

Extending the System

With price bidding, no harm is done if the Franchise Authority is free to introduce additional franchisees. Out of fairness it should be careful to indicate this possibility when taking bids during the initial auction. The effect is to create possibly temporary exclusive franchises. If a better contractor comes along offering lower fares, then it might receive a contract. This would happen if input costs fell or technology changed in a unpredicted way. The existing franchisee would have the opportunity to incorporate the changes and keep customers by matching the new fares.

Non-exclusive franchises are common in the private sector. There appear to be no problems attached to following this model. If a franchisee were unable to face new competition on price and went out of business, this would be comparable to a firm losing out in a regular competitive business. The future is risky and private firms expect to bear uncertainty. The Franchise Authority could choose to buy up any sunk, long-lived assets from a failed franchisee, at arbitrated values. However, it need not be obliged to do this, unless it is feared that it might otherwise have an incentive to behave opportunistically towards a franchisee. I have already suggested that third-party arbitration should be an adequate control.[52]

Under the Government's scheme, the eventual possibility of independent entrants provides an incentive for franchisees to offer true maximum rentals or minimum subsidies, as I have already explained. This will not operate for the first round, where local monopolies will be created. With price bidding, competition is over fares at the outset, which is a great advantage for passengers. Also, at both the initial franchise round and on a continuing basis, competition is carried out 'on paper'. Thus, resources are not committed too early and bidders are more likely to be forthcoming.

Through Tickets and Natural Breaks

Franchising would work best if attention were given to finding the 'natural breaks' in the rail network. It is not obvious that route-operating franchisees or Railtrack are the best station managers. Station management could be separated from operating routes by holding franchising exercises, probably for groups of stations or large individual ones. Again the preferred method should be price bidding. This time the bids would be in terms of the lowest fees to be charged to station users: principally route franchisees making stops. Route franchisees could be free to bid, as long as they were committed to serving all users at the same charges. An index of charges might be the bidding target, if it seemed useful to consider charges to other businesses like restaurants and newsagents that are often located on stations.

There has been much discussion of whether through ticketing and national timetabling will be hampered by privatization.[53] Through ticketing is relatively straightforward for airlines and existing

regional groupings of BR, and really should not provide an insurmountable problem.

One way of solving the problem is to franchise the ticketing and timetable-publishing aspects of the rail network. Again, price bidding should be used. Also, there is again no reason to limit the field of competition. Firms running stations, operating routes or acting as Railtrack can be free to bid as long as they are committed to a non-discriminatory service. This approach follows the logic that if network ticketing and objective information on available connections is to be maintained, then someone needs to have a business interest in providing the service. Interestingly, as passenger rail moves towards franchising, suggestions have been made that franchisees might set up a jointly owned through-ticketing company responsible for coordinating their businesses.[54] If this were done without price bidding there is a danger that the 'centre' would be a means of keeping out competition and coordinating collusion among franchisees. Something of that kind seems to have happened with booking systems following deregulation of airlines in the USA.[55] A coordinator is likely to be useful but must be kept independent, which would be achieved by price bidding.

Freight

The Government's proposals for freight and parcel services are more straightforward. This is because the Government intends to break up the existing services into smaller companies and liberalize access to the network for private firms. There is much more likelihood of this benefitting customers in the form of lower delivery charges as there is scope for competition to emerge between firms.

At present, Trainload Freight carries high-volume shipments of goods like coal, metals, petroleum, aggregates and cement powder, usually for single customers. Railfreight Distribution ships lower-volume trainloads such as containers, cars and international freight. The Government proposes to break up these businesses and allow newcomers access to freight terminals.[56] New businesses of whatever kind will have to pay Railtrack charges. Most freight runs on passenger tracks.

Parcel business currently comprises Red Star, which actually carries parcels on passenger trains, and Rail Express Systems, which provides trains for the Royal Mail. The Government will sell these

businesses and liberalize access to the network for further private firms. All firms will pay Railtrack charges, running dedicated trains if they wish, and will negotiate their own contracts with passenger-service franchisees.[57]

Chadwick franchising could be useful if rivalrous firms failed to emerge for the freight and parcels services. However, this does not seem likely at the time of writing. Many delivery and courier services have emerged, for example in competition with the Post Office, in recent years. There is no shortage of road-haulage firms. Given the expected profitable nature of these services, entry should occur unless the Government creates barriers. If Railtrack were subject to Chadwick bidding, as I have suggested, it could be contractually obliged to provide common-carrier services to all entrants into freight and parcels. This would support competition.

BR

The role for BR under Chadwick bidding would be much the same as under rental/subsidy bidding. Given that a decision has been taken to privatize as a means of encouraging private-sector cost efficiency, there is no point in continuing with any form of state enterprise in the longer run. BR would act as temporary supplier of services until franchises have been awarded. The Government's proposal to prevent BR bidding for franchises would also be sensible for a Chadwick scheme.

It might be that existing BR operations would give the most efficient service on some routes, especially with an increase in competitive pressure from Chadwick bidding. It would then seem to be beneficial to let a bid from BR win the franchise. However, effectively the same thing occurs if management and worker groups within BR are allowed to bid, but must form a private company to do so. The private group would have access to BR rolling stock and to the same infrastructure through Railtrack. By sticking to this route, the costs of organizing and monitoring an extra state enterprise are avoided.

Cherry Picking

It is feasible to privatize the entire rail network, including the tracks and a central ticketing system, using price bidding. Some critics might argue, however, that private operators could be tempted to

pick off the more profitable parts to the detriment of the system as a whole. How would price bidding avoid encouraging cherry picking?

The problem can be simply thought of by considering the operation of two distinct rail routes. For simplicity suppose that they are both profitable, although the argument also works for subsidized routes. One might be a feeder route into the other, which I assume has the result that average passenger costs for any level of service are lower when both routes are operated together. Let each route be worth half the total business. If the routes are separated, they are poorly coordinated, which increases passenger costs on the final stage route because of greater waiting time. However, at the earlier stage, costs can be lower because of less waiting time but the saving is less than the increase in final-stage costs. It looks as though a stand-alone operator for the feeder would be able to offer lower fares albeit by increasing costs elsewhere.

To stop the price bidding scheme encouraging the cherry picking of the feeder route, contracts need to be carefully specified. The Franchise Authority would need to seek bids for a price index, which I have already suggested anyway, as well as for separate fares whenever there was the slightest suspicion that economies of joint production (of 'scope') existed. In the example, we would require bids for both fares together as well as for each separately. It would soon become clear that the best arrangement would be to franchise both stages to a single operator. The lowest combined fare would come from joint operation.

The example is very simple as equal weight is given to the two stages. In general, weights would have to be given to complementary services. To some extent, the Government is already proposing an automatic amalgamation of some services. This is because it proposes to take administrative decisions to bundle journeys and routes for rental/subsidy bidding. Price bidding with indices for complementary services would be a more logically coherent approach to combining services.

Conclusions

The Government's proposal to franchise passenger rail services has a number of problems. The rental/subsidy bids to be used encourage higher fares and are of doubtful benefit to taxpayers. Railtrack remains nationalized in consequence of fears it could exercise monopoly power over operating franchisees. Any system of

coordination between franchisees could lead to collusion. It is not clear what justifies the subsidies in the scheme.

Privatization could be accomplished more comprehensively by franchising but needs to be based on a different bidding scheme. By requiring bids to be in terms of the lowest fares to be charged (price bidding) the most cost-efficient firm is selected as an operating franchisee and is encouraged to maximize the level of service at rock-bottom fares. Subsidies should be separately assessed, based on any environmental benefits from a loss-making route, and announced before bidding commences. Bidding must be in terms of a price index when services are complementary, which they often are.

Price bidding enables privatization to be extended to Railtrack, since it does not create an incentive for profiteering by monopolistic behaviour. The incentive is to behave like a firm in a competitive industry, because competitors are periodically introduced. Similarly, a central ticketing company could be created this way. Price bidding would still involve private companies purchasing assets and land from BR, and contributing ultimately to the public finances. However, there would be no annual rental payments - although these are not considered likely to be substantial under the Government's scheme.

The Government's proposal to privatize rail is welcome as franchising should introduce private-sector incentives towards cost efficiency and a better orientation towards passengers. However, it is messy - if not dangerous - to leave some parts nationalized. The incentive structure needs more careful attention to avoid a tendency towards creating private monopolies. Price bidding could move franchising onto the right track.

Endnotes

[1] *New Opportunities for the Railways*, Cm 2012, Department of Transport, 1992 (henceforth abbreviated to *New Opportunities*); *The Franchising of Passenger Rail Services*, Consultation Document, Department of Transport, 1992 (henceforth: *Franchising*) and *Gaining Access to the Railway Network*, Department of Transport, 1993 (henceforth: *Access*).

[2] Research generally supports the superior cost efficiency of private business. See Ahmed Galal, Leroy Jones, Pankaj Tandon and Ingo Vogelsant, *Welfare Consequences of Selling Public Enterprises*, The World Bank, Washington DC, 1992.

[3] See 'MacGregor Unveils Model Franchises', *The Times*, February 3, 1993.

[4] See *Franchising*, p 31, Table 3. In addition, it may well be that the profit of £2 million shown for InterCity in 1991/92 would become a loss under accounting rules that were less generous over allocating capital costs across the system. InterCity is projected to make a profit of £5 million, on its present accounting rules, for the financial year 1992/93 according to a recent report ('£5 million Profit Boosts InterCity Managers' Fight for Network', *The Times*, February 6, 1993).

[5] See *Access*, p 11. Freight sometimes makes losses.

[6] See Antony Dnes, 'Bidding for Commercial Broadcasting', *Scottish Journal of Political Economy*, Vol 40, February 1993.

[7] Edwin Chadwick, 'Results of Different Principles of Legislation in Europe: of Competition for the Field, as Compared with Competition Within the Field of Service', *Journal of the Royal Statistical Society*, Vol 22, 1859; Harold Demsetz, 'Why Regulate Utilities?' *Journal of Law and Economics*, Vol 11, 1968; also see Antony Dnes, 'Franchising, Natural Monopoly and Privatisation', in *Regulators and the Market*, ed C J Veljanovski, IEA Readings 35, 1991. Natural monopoly arises if it is cheaper to concentrate production in one firm: traditionally this is seen as raising the issue of how to stop that firm charging monopoly prices.

[8] *New Opportunities*, foreword by John MacGregor.

[9] The quotes are from *New Opportunities*, p 5, and *Franchising*, p 5, respectively.

[10] *Franchising*, p 5.

[11] See *Franchising*, p 1, paragraph 2, and *Access*, p 7.

[12] *New Opportunities*, p 15.

[13] *Franchising*, p 15, paragraphs 4.1 & 4.4.

[14] Announcement by John MacGregor, Secretary of State for Transport, to the House of Commons, February 2, 1993.

[15] See *Access*, p 13.

[16] *Franchising*, p 15, paragraph 4.3.

[17] See *Access*, p 12.

[18] *Franchising*, p 5.

[19] The first (*i.e.* highest) bid is accepted from written submissions, as in the sale of houses in Scotland. The properties of this and other auction systems are covered in R.McAfee and J.McMillan, 'Auctions and Bidding', *Journal of Economic Literature*, June 1987.

[20] See *Access*, pp 13-16. Railtrack requires a fixed and a variable (user-related) charge. The variable one will be stated at the start of bidding. Bids will then either give Railtrack a surplus or a deficit compared with its undeclared fixed charge. The fixed charge includes allocated common costs. A deficit is made up for by a subsidy from the Authority. If the bid is negative there must be a subsidy to both Railtrack and to the franchisee.

[21] See *Access*, pp 12-13.

[22] See *Access*, p 14.

[23] See *Access*, p 15.

[24] *Franchising*, p 25, paragraph 7.7.

[25] See *Access*, p 18.

[26] See, for example, 'British Rail Sell-off Plan Condemned by MPs', *The Times*, January 21, 1993.

[27] See R. McAfee and J. McMillan, 'Auctions and Bidding', *Journal of Economic Literature*, Vol 25, 1987, pp 699-738, for details of auction systems and the effect of varying the numbers of bidders.

[28] See Antony Dnes, 'Bidding for Commercial Broadcasting', *Scottish Journal of Political Economy*, Vol 40, 1993, for details.

[29] See, for example, 'A Ticket to Ride through the Franchising Maze', *The Times*, January 6, 1993.

[30] See my *Franchising Passenger Rail Services*, Discussion Paper Number 9216, Department of Economics and Centre for Research into Industry, Enterprise, Finance and the Firm, University of St Andrews, for a more technical analysis of this point.

[31] I assume the later entrant pays a rental, since otherwise it is too easy to undercut the incumbent by just reducing payment to the Authority.

[32] The transfer of monopoly profit by rental bidding is well understood in the economics literature. For example, see Oliver Williamson, *The Economic Institutions of Capitalism*, 1985, p 329.

[33] See John Burton, *Why No Cuts?* Hobart Paper 104, 1984, for an excellent analysis of the growth of government, 'fiscal churning' and related matters.

[34] It has long been known that the loss to consumers exceeds the gain to the monopolist. See Alfred Marshall, *Principles of Economics*, 1890, pp 403-410. One way to see this is to drop the price by part of the monopolist's unit profits. Then existing consumers gain what the monopolist loses. The lower price means more consumers are willing to purchase the product. Price is still above unit costs so the new consumers can be supplied. The additional consumers must receive some benefit from consumption and, therefore, there is a net benefit from expanding output past the monopoly point. The monopolist will not add additional consumers, regardless of their benefit from consumption, if lowering price lowers his profits.

[35] See *Access*, p 14.

[36] Depending on demand, subsidy per passenger would be constant or increasing (for constant average passenger costs) or increasing (for increasing costs) as more passengers travel. This implies total subsidy increases with the number of passengers. The only case in which the franchisee could undercut BR's subsidy and expand

output is if there were rapidly decreasing costs per passenger. Then, the subsidy for the firm would fall, eventually to zero, just by increasing the number of passengers. Indeed, further expansion should bring profitability so this is not really a subsidy case. Even in this case, passenger costs would have to fall at a faster rate than the price additional passengers would pay for the service (average cost must fall faster than the demand curve) for this to be true.

[37] A lower-cost entrant might be able to displace the franchisee in terms of lower fare and lower subsidy. However, its incentive is still to minimize the subsidy, which prevents it from expanding the service level at the new fare. Displacement would surely occur in terms of a smaller subsidy requirement at the same fare.

[38] *Franchising*, p 1, paragraph 2.

[39] In this case it seems unlikely that a bargaining solution could be reached between car users and town dwellers, owing to high bargaining costs. Therefore, in the spirit of comparative institutionalism it is correct at least to investigate subsidy of the railways as a solution promoting the greatest total net welfare. On comparative institutionalism see Ronald Coase, 'The Regulated Industries: Discussion', *American Economic Review*, Vol 54, 1964.

[40] If the Government were to levy congestion charges on the roads, as it periodically suggests it might, there would be no case for subsidizing passenger rail. I would expect many motorists to switch to rail creating more profitable routes. Logically, taxing car journeys or subsidizing rail travel are each capable of leading to lower congestion levels but should not both be used or there is a danger of double counting the environmental problem.

[41] See George Stigler, 'The Theory of Regulation', *Bell Journal of Economics*, Vol 2, 1971.

[42] At the time of writing, BT has to keep an increase on an index of charges on a basket of services below the change in the Retail Price Index minus 6.25%.

[43] The firm bids its average-cost schedule.

[44] I show in my paper 'Bidding for Commercial Broadcasting', *Scottish Journal of Political Economy*, Vol 40, 1993, that consumers always benefit from Chadwick bidding. However, in the case of increasing costs only, it needs a simple pricing amendment to be certain to maximize consumer plus producer benefits. The amendment gives a revenue-raising scheme.

[45] *Port Leasing Policies*, Australian Trade Practices Commission Draft Report, December 1992, p 5. The Commission argues that public-goods aspects of waterfronts make full private ownership difficult.

[46] Bidding failure in both schemes is an example of moving from a first-price to a second-price auction.

[47] See my book *Franchising*, 1992, p 298.

[48] 'How not to Run a Railway', *The Times*, February 6, 1993.

[49] See Mark Zupan, 'The Efficiency of Franchise Bidding Schemes in the Case of Cable Television', *Journal of Law and Economics*, Vol 32, 1989; and Robin Prager, "Firm Behavior in Franchise Monopoly Markets", PhD dissertation, Massachusetts Institute of Technology, 1986.

[50] See *Access*, p 12.

[51] See *Access*, p 8.

[52] I discuss this type of issue in 'Franchising, Natural Monopoly and Privatisation', in *Regulators and the Market*, ed C J Veljanovski, IEA Readings 35, 1991.

[53] See 'British Rail Sell-off Plan Condemned by MPs', *The Times*, January 21, 1993.

[54] Roger Freeman, Minister for Public Transport, is reported to be looking into such a possibility, which would need the Regulator's consent. See '£5m Profit Boosts InterCity Managers' Fight for Network', *The Times*, February 6, 1993.

[55] See Severin Borenstein, 'The Evolution of US Airline Competition', *Journal of Economic Perspectives*, Vol 6, 1992.

[56] *New Opportunities,* p 11.

[57] *New Opportunities,* p 12.

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