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FAIR DEAL FOR THE TAXPAYER:

Why rail fares should be liberalised

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Summary

- Although the rail industry was privatised in the 1990s, the sector is still subject to substantial government intervention, including the imposition of price controls on a high proportion of fares.
- Fare regulation causes overcrowding on rail services by artificially inflating demand at particular times of day. Regulation of commuter season tickets creates congestion at peak times, while long-distance saver fares lead to packed trains just after the evening peak.
- Train operators are prevented from managing demand through the price mechanism and from making better use of existing capacity by incentivising passengers to shift to quieter services. The marginal cost of each additional passenger may be very high on overcrowded trains, but regulation means fares cannot reflect this.
- Artificial capacity problems create political pressure for large-scale state spending on railway infrastructure and new rolling stock. Such taxpayer support provides substantial financial gains to special interests such as Network Rail officials, specialist consultancies, engineering firms and train manufacturers. These groups have strong incentives to lobby for the current regulation and subsidy regime to be continued.

- A further problem with the current system of fare regulation is its indexation to the Retail Prices Index (RPI). There is no particular reason to expect rail industry costs to rise in line with general price inflation. If such costs increase faster than general inflation, an additional burden is likely to be imposed on taxpayers.
- Taxpayers now face an annual bill of about £6 billion to support the railways. This high level of subsidy partly reflects the cost of wasteful investment to address the problems caused by price controls.
- There is a strong economic case for phasing out fare regulation completely or at least giving train operating companies far more flexibility in pricing. The introduction of 'super-peak' fares that charged passengers more for travelling during the very busiest periods would flatten peak demand, thereby addressing overcrowding problems at low cost. The level of taxpayer subsidy could then be lowered substantially with beneficial effects for the wider economy.

Introduction

Britain's railway industry was privatised in the mid-1990s. The nominal transfer of ownership to the private sector did not however mean an end to state control. Intervention took three key forms. Firstly, the sector remained heavily dependent on government subsidies. Indeed the amount of taxpayer support rose significantly in real terms during the decade after privatisation, to roughly treble the levels during the 1980s. State funding for the heavy-rail network as a whole is currently running at approximately £6 billion per year, with roughly 40 per cent of industry spending funded by the taxpayer.[1] Secondly, the government imposed a complex artificial structure on the industry, partly in response to European Commission 'open access' rules.[2] Fragmentation was favoured over vertical integration, with separate companies owning the track and operating the trains. Finally, the government imposed strict regulations on the railways. These market interventions permeate the sector and include complex franchising rules for train operating companies and price controls on a high proportion of fares.

This paper examines the economic impact of the latter on Britain's railways. The analysis takes into account the interaction of fare regulation with the other policies summarised above, as well as wider trends in British transport policy. The first section sets out the scope of fare regulation, examining the types of journey that are

1 This figure includes non-Network Rail spending on the heavy-rail network, including Transport for London spending on the Crossrail project and London Overground. It does not include London Underground, other subway systems or light rail/tram systems. See DFT (2014a) for indicative estimates.

2 See, for example, Directive 91/440/EEC.

affected. The economic consequences are then analysed. In the context of the negative effects on efficiency, widely acknowledged within the industry, the government's stated rationales for price controls are assessed. It is concluded that the arguments for fare regulation are weak and that the self-interested behaviour of policymakers and rail firms explains the continued imposition of these economically damaging interventions in the transport market.

The scope of fare regulation

Regulated fares account for approximately 50 per cent of passenger revenue on the heavy-rail network. While the precise rules are complicated and intricate (see Butcher 2014), the main market segments that have been subject to price controls are as follows:

- All season tickets to, from and within London zones 1-6
- Oyster pay-as-you-go peak and off-peak fares for journeys within London zones 1-6
- Anytime day singles and returns for journeys to any London zones 1-6 station from a defined suburban area, roughly 35-50 miles from central London
- Anytime day singles and returns within London
- Off-peak, walk-up 'saver' fares for long-distance journeys (both the price and the time restrictions on these fares are regulated)
- Various weekly season tickets that are not covered by other fare regulations
- Commuter fares and some off-peak fares in areas under the jurisdiction of Passenger Transport Executives and equivalent bodies

Increases in these fares are limited by inflation-linked price formulae determined by central government (the vast majority of the regulated market) or the relevant regional transport agency. Before 2004, the government set regulated fares at the July Retail Prices Index (RPI)

minus one per cent, resulting in below inflation rises. From 2004 to 2013, the change was set by the government at July RPI plus one per cent. However, in December 2013, the Chancellor of the Exchequer announced that the 2014 rise would be in line with the RPI (ibid: 3).

The economic impact of fare regulation

Economic theory suggests price ceilings lead to shortages since they encourage more demand than would occur at the market price while reducing supply. In the passenger rail market this effect is manifested in overcrowding on many of the routes on which fares are regulated, with supplied capacity insufficient to cope with the artificially inflated demand at certain times of day. More broadly, price controls can be expected to limit entrepreneurship, innovation and market segmentation in the rail industry, since, for example, the scope for offering passengers different trade-offs between price and quality of service is constrained (see Starkie 2013).

However, such analysis is complicated by the high degree of state control over the sector, with key decisions on resource allocation subject to political interference and bureaucratic central planning. Thus fare regulation should also be assessed in terms of its impact on the incentives facing the government actors who have largely supplanted commercial decision-making on the railways.

Many of the effects of price controls are already well known within the rail industry (see McNulty 2011). For example, off-peak saver fares are responsible for severe overcrowding on some services at the end of the evening peak. Instead of a gradual drop in prices as demand subsides, as would occur under market conditions, the regulation creates a cliff edge with a big fall in fare levels immediately after the departure times when saver fares become valid (typically around 7pm). There is a particularly severe problem with ‘artificial

demand peaks' on Friday evenings on some long distance services to the North and Scotland. Reports describe 'sardine-like' conditions and hundreds of passengers left on the platform.[3] Fare regulation creates the perverse situation where there is often substantial spare capacity on the peak services that leave at the most convenient times, but overcrowding on less convenient services that depart later in the evening. The role of the price mechanism in allocating capacity efficiently is undermined.

A similar problem afflicts regulated commuter routes. In this case, fare regulation means that passengers travelling at the very busiest peak-times typically pay the same as those commuting during the shoulders of the peak. The result is severe overcrowding on some services. Train operators are prevented from using the price mechanism to make better use of capacity by incentivising passengers to shift to quieter services. The marginal cost of each additional passenger may be very high on overcrowded trains, but regulation means fares cannot reflect this. The government recently considered introducing higher-rate 'super-peak' fares to address this problem – still a form of price control but a better approximation for market pricing. This was rejected, however, apparently for political reasons:

> 'Allowing train operators to charge a premium in the "super peak"... would boost efficient capacity utilisation, which in the medium to longer term could help curb overall fare rises. In the short-term however this would result in additional fare rises for some passengers and in the current climate with other pressures on household budgets that is not something we can accept. *We have decided against super peak pricing* as we believe it simply would not be right to impose a further burden on hard-pressed commuters at this time. We have listened to passengers...' [emphasis in original]
>
> DfT (2013: 20)

3 For example, 'Rail firms push for budget airline-style fares to beat off-peak overcrowding', *Guardian*, 7 November 2010.

This kind of fare regulation also tends to narrow the gap between peak and off-peak fares[4], exacerbating overcrowding problems by reducing the financial incentives for travellers to use trains with spare capacity. Indeed, a greater difference between peak and off-peak fares would incentivise employers to shift their schedules to reduce the travel costs of their employees and customers. For example, universities could start their lectures later in the morning. By providing such incentives, market pricing delivers much more efficient use of existing capacity. This is important not just for commuters standing on packed carriages but also for taxpayers and the wider economy.

The marginal cost of a journey is particularly high when not just the train is full, but the infrastructure itself has reached capacity. The provision of new heavy-rail capacity is typically extremely expensive, as demonstrated by recent schemes such Crossrail. Moreover, the new infrastructure is typically not commercially viable, forcing taxpayers to fund a high proportion of the budgets. And price controls also make it more difficult to reclaim the costs of new infrastructure from the major beneficiaries – i.e. commuters on the busiest peak-time services – as would happen in a commercial investment, thus making subsidies from the taxpayer much more likely. Accordingly, the combination of price controls and state subsidy turns the allocation of resources on the railways into a political rather than a commercial process. Fare regulations generate problems of overcrowding which in turn put pressure on policymakers to provide additional infrastructure.

4 In contrast to the regulation of off-peak 'saver' fares on inter-city services, which tends artificially to widen the gap immediately before and after peak periods.

Indexation to the general inflation rate

A further problem with the current system of fare regulation is its indexation to the Retail Prices Index (RPI). There is no particular reason to expect rail industry costs to rise in line with general price inflation. The prices of goods and services within different markets rise at different rates. For example, in recent years there have been significant price falls in sectors such as computer hardware, due to rapid innovation and the removal of trade barriers. Falling prices in these areas will lower the RPI. Of course, this means that prices in other sectors will be rising at a faster rate than the aggregate figure. If rail industry costs were to increase faster than general inflation, but fares were pegged to RPI, government would be obliged to make up the difference at taxpayers' expense, assuming a given level of service etc. The opposite could also occur, for example if there were major productivity improvements on the railways, although in general this would be less objectionable since the effect would be to reduce the forced contribution of taxpayers. Nevertheless, it can be seen that the reliance of price controls on aggregate inflation indexes disrupts the market relationship between industry costs and fare levels, leading to a misallocation of resources.

The rationale for fare regulation

The above discussion confirms that the well-known economic costs of price controls are pervasive in the rail sector. In this context, the government's own arguments for fare regulation deserve scrutiny. A key question is whether there are valid economic justifications for the price controls or whether their imposition reflects political considerations.

Post-privatisation controls on London commuter fares appear to have been driven by fears about the potential 'market power' of operators on these routes (SRA 2003). According to the Department for Transport:

> 'London commuters were considered to be a "captive market" with no realistic alternative to the train for travelling into London. It was considered that this group of passengers needed to be protected against the risk of possible exploitation by train operators, who exercise a de facto monopoly position on commuting routes into London from many locations.' (DfT 2012: 18)

According to this argument, recent transport policies appear to have strengthened the case for regulation:

> '[C]ommuting into London by car has become slower and more expensive. As a result, the capital's commuters are even more captive to rail than when fares regulation was first established. So it is clear that we need to continue to use regulation to protect commuters from possible exploitation.' (ibid.)

Arguments about ‘market power’ have also been used to justify regulation in the Passenger Transport Executive (PTE) areas and around other major cities. Train operators are said to operate in a semi-monopoly position, leading to a presumption in favour of protecting commuters by controlling the structure and level of fares.

Even outside the travel-to-work areas of the major conurbations, a case for regulation has been made on the grounds that passengers need protection against possible exploitation by operators where they have no realistic alternative to the train. The regulation of inter-city ‘saver’ fares widens the rationale further still:

> ‘Given the uncertainty as to how the newly privatised train operating companies would act, it was considered prudent to regulate to ensure that an affordably priced walk-up fare continued to be available for long-distance travel during the off-peak...This was to ensure that rail continued to offer an affordable alternative to the private car for such trips, reflecting the wider social benefits of leisure-related travel such as visiting family and friends.’ (ibid: 20)

A critique of the case for fare regulation

The above case for price controls can be challenged on a number of grounds. A general point is that market-power issues do not necessarily justify state intervention. Regulation is far from costless and is prone to economic calculation problems and capture by special interests. Thus the costs of intervention may exceed the alleged costs of the original 'market failure' (Demsetz 1969).

In any case, the market power of rail firms would seem to be greatly exaggerated by the government. Although sunk costs and planning restrictions make it very difficult for new entrants to build competing infrastructure, rail is just one element in a diverse market for mobility that now includes low-cost virtual options such as video-conferencing and home-working. Transport markets are therefore high contestable and competition would act as a check on any rail firm seeking to take advantage of its 'market power'. This is particularly obvious outside the London commuter belt where rail accounts for a very small proportion of journeys.[5] One might also consider the extent to which any increase in the 'market power' of rail firms is the result of government policies imposed since the mid-1990s which have deliberately discouraged competing modes such as the private motor car (Wellings 2006). Low-cost transport modes seen in the developing world, such as shared taxis and private minibuses have also effectively been prohibited in the UK.

5 In Britain as a whole, rail accounts for only 3 per cent of trips (DfT 2014b) .

Within Greater London itself there is clearly substantial contestability, even in the context of the state suppression of many low-cost options. Heavy rail competes with London Underground services in much of the capital. There is also an extensive bus network offering relatively cheap fares to the main employment hubs. While the congestion charge and parking fees make driving too costly for many commuters, there are other private options. A high proportion of the city's population lives within practical cycling distance of the central area, while motorbikes offer another fast and low-cost alternative. Some travellers might choose a combination of modes to make savings through competition – for example, by driving from their home to a nearby tube station, bus route or a railway operated by a different train company.

Many of the above options are also available to longer-distance commuters travelling into central London from well outside the city boundary. In addition it should be noted that there is a large and thriving commuter coaching industry already operating in competition with the railways. Journey times are typically slower but stops may be more convenient and fares are around 40 per lower than rail (Starkie 2013: 52). Coaches also offer pre-booked seats and wi-fi, enabling passengers to work during their trip (difficult on an overcrowded train).

In the longer term, train fares will of course affect the locational decisions of households. High prices will incentivise employees to move closer to work, even if this means living in less spacious housing or a less desirable area. Alternatively, households might move to a transport corridor in which cheaper journeys are available, for example one served by low-cost commuter coaches.

Finally, improvements in communications technology mean that a high proportion of commuters now have the option of working from home for at least some of the week. At the margin, higher fares would incentivise some workers to make fewer journeys. Overall there has been an 18 per cent fall in the number of commuter trips per person in England since the mid-1990s, a development which might partly be explained by such innovations (DfT 2014b).

The various alternatives available to commuters effectively lower the revenue-maximising level of fares that can be charged by train companies, and, to use the government's terminology, severely limit their 'market power'.

If the economic rationale for regulating commuter fares is weak, it is weaker still for off-peak, long-distance journeys. There is ample spare capacity on the relevant train services and operators have strong incentives to offer low-cost tickets to reflect the very low marginal cost of additional passengers. This is indeed what happened after privatisation, with very cheap pre-booked off-peak fares becoming widely available. It seems likely that in the absence of regulation, some firms would also have offered low-cost tickets bought at stations immediately prior to travel or even on the train, albeit on a restricted range of services.

Furthermore, the market for inter-city travel is clearly highly contestable, with a very high rate of car ownership among the socio-economic groups who most frequently make such journeys. Extensive route networks are operated by coach firms such as National Express and Megabus - which offer fares as low as £1.50 for long-distance trips[6] - while many routes are also served by airlines. In addition, there is competition between rail firms on many routes. A passenger travelling from London to Birmingham could choose Virgin Trains, Chiltern Railways or London Midland services. Yorkshire can be reached using East Coast, East Midlands Trains, Grand Central or Hull Trains. Modal combinations further increase the choice available to travellers, for instance, by enabling them to drive part of a journey then take the remainder by train.

6 See www.uk.megabus.com

Incentives for fare regulation

Given the contestability of transport markets, even in the London commuter market but particularly on long-distance inter-city journeys, an analysis of fare regulation should also examine alternative explanations for the imposition of price controls. A plausible hypothesis is that regulation has been driven primarily by the self-interest of key actors in the development of rail policy.

In the early 1990s rail privatisation was deeply unpopular and faced strong opposition among backbench Conservative MPs. There were fears that steep fare hikes could result in the loss of marginal constituencies, particularly in the London commuter belt, where rail commands a significant market share.

Accordingly, fare regulation may be better understood as a political policy rather than an economic one. It was arguably designed to counter opponents' claims that privatisation would negatively affect the lives of key voting groups and fears it would deepen the unpopularity of an already weak government. Price controls were just one element of this risk-averse policy agenda, which also, for example, imposed regulations that made it very difficult for the industry to close even the most heavily loss-making lines.

The words of a senior British Rail official are telling,

> 'I came across a number of confidential privatisation papers circulating about fare levels...These, when leaked (and they all implied fare rises and a loss of multi-operator tickets), were, I think, instrumental in forcing the Tory government to regulate real fares

> downward, reversing the trend they had applied to BR.' (quoted in Wolmar 2001: 68)

Wolmar explains the development of the policy as follows:

> '[F]ares regulation was one of the great victories for opponents of the privatisation. The original plan had been to regulate fares only where train operators had a virtual monopoly – such as on the London commuter routes...but ministers were keen to make privatisation more palatable and eventually, late in the process, a scheme to regulate season tickets, savers and some other fares was implemented as a sop to passengers. It was a marked reversal from BR's policy of using fares to restrict growth but, as with all aspects of privatisation, the implications for the economics of the railway were not thought through.' (ibid: 68-69)

A rent-seeking coalition against taxpayers

Arguably the decision to introduce and persist with these policies has not just been the result of politicians seeking to 'buy votes'. After privatisation, the range of special interest groups with a stake in the rail industry – and hence government subsidies - expanded significantly to include various commercial entities such as train operating companies, lawyers, consultants and banks. As public choice theory explains, small, concentrated interest groups have far stronger incentives to devote resources to influencing policy than dispersed groups such as taxpayers. They also face fewer organisational problems and can more easily prevent free-riding (Olson 1965).

While fare regulation is a source of significant inefficiencies in the rail sector, various special interests benefit from its existence and the resulting market distortions. Clearly subsets of passengers perceive benefits from the arrangement, to the extent that it reduces their travel costs. Yet costs are imposed on those passengers who would prefer to pay higher fares in order to avoid overcrowding and associated delays. And travellers are inevitably ignorant of the potential benefits from the entrepreneurship, innovation and market segmentation that are hindered by the regulations.

The rail industry itself is a major beneficiary. Price controls increase demand, particularly during peak periods, creating artificial capacity problems that are eventually 'solved' by large-scale state spending on railway infrastructure and new rolling stock. Such taxpayer

support provides substantial financial gains to interests such as Network Rail officials, DfT bureaucrats, various consultancies, engineering firms and train manufacturers.

Thus it may be hypothesised that fare regulation and the resulting disbursement of state funds sustains a 'distributional coalition' of special interests who gain financially from the current regulatory system. According to Olson (1982: 44), distributional coalitions are 'overwhelmingly oriented to struggles over the distribution of income and wealth rather than to the production of additional output'. In other words they are engaged in 'rent-seeking' behaviour, extracting resources from the wider population through preferential subsidies and regulation. Such a group has 'little or no incentive to make any significant sacrifices in the interest of the society; it can best serve its members' interests by striving to seize a large share of society's production for them. This will be expedient, moreover, even if the social costs of the change in the distribution exceed the amount redistributed by a huge multiple…' (ibid.).

While a detailed analysis is beyond the scope of this paper, it is clear that the rail industry commits substantial resources to rent-seeking activities. For example, lobbying for the High Speed 2 rail project has been undertaken by special interests such as engineering firms, train manufacturers and transport bureaucracies (see Wellings 2013). Claims that the southern West Coast Main Line - which carries, amongst other traffic, regulated-fare commuter services - will soon be full, have been central to the public relations campaign for the new line. Proponents ignore the potential for more flexible pricing and market segmentation to make more intensive use of existing infrastructure.

Similarly, price controls have successfully been promoted through the Fair Fares Now campaign run by the Campaign for Better Transport, which calls for 'cheaper - affordable rail fares, including peak times and turn-up-and-go tickets', regulated fares to 'fall gradually, over time to the European average' and for the 'high

premium paid for flexibility and peak-time travel' to be reduced.[7] Such policies are clearly a recipe for higher subsidies from the taxpayer and would benefit significantly the distributional coalition represented by the rail lobby. And while the connection between the funding of organisations and their campaigning activity is not always clear cut, it is nevertheless the case that the Campaign for Better Transport is supported financially by major players in the sector. In the post-privatisation era, funders have included several train operating companies, as well as various government agencies.[8]

Another influential organisation, Passenger Focus, which has campaigned in support of fare regulation and opposed more flexibility in pricing, is sponsored directly by the Department of Transport (DfT), ostensibly in order to represent the interests of passengers. In 2013-14, the organisation received £4,930,000 'grant in aid' from the DfT (Passenger Focus 2014: 15). Thus the government is effectively using taxpayers' money to lobby itself (Snowdon 2012). Government officials employed to direct the rail industry are of course an important component of the distributional coalition.

However, it should be pointed out that there are constraints on such redistribution, for example in terms of the overall level of public spending and debt, as well as the voting power of taxpayers. While the incentives for the latter to engage in debates on the level of rail subsidy are very weak indeed, they may exhibit dissatisfaction with the overall level of taxation. And the rail lobby must compete with numerous other distributional coalitions for state funds. Within government, HM Treasury constrains bureaucratic budgets, including those of the various transport agencies.

7 http://www.bettertransport.org.uk/fair-fares-now

8 See Campaign for Better Transport Charitable Trust Report and Financial Statements, various years, and Transport 2000 Annual Review, various years.

Phasing out price controls

Fare regulation is partly responsible for the major problems facing Britain's railways. It distorts patterns of demand, leading to overcrowding on some routes at certain times of day, whilst at the same time hindering use of the price mechanism to make better use of existing capacity. In turn, these inefficiencies create political pressure for the government to fund expensive infrastructure enhancements. Price controls have thus played an important role in sustaining high levels of taxpayer support for the sector and the misallocation of investment towards poor-value rail schemes.[9]

There is therefore a strong economic case for phasing out fare regulation completely or, at the very least, giving train operating companies far more flexibility in pricing. In particular, the introduction of 'super-peak' fares that charged passengers more for travelling during the very busiest periods would flatten peak demand, thereby addressing overcrowding problems at low cost. Greater fare flexibility would also create possibilities for additional market segmentation, for example by allowing train operators to introduce cut-price, high-capacity carriages (Starkie 2013: 48-52). And deregulation would enable rail firms to make infrastructure enhancements on a commercial basis, since they would be free to charge passengers higher fares for an improved service. Accordingly, the level of taxpayer subsidy could be lowered substantially with beneficial effects for the wider economy.

9 See Dodgson (2009) for a comparison of rates of return on transport infrastructure schemes.

Phasing out price controls therefore has the potential to reduce the dependence of the rail industry on government support and perhaps remove it entirely on some parts of the network.[10] This would change dramatically the incentive structures facing firms in the sector. Their profits would depend to a far greater extent on the services they offered to their customers. The absence of subsidies would reduce the returns from rent-seeking behaviour.[11] Thus the removal of fare regulation has the potential to break-up the distributional coalition that extracts resources from taxpayers and the wider economy.

Yet key elements of this coalition would potentially suffer substantial losses from such a policy shift – in particular those firms and officials involved in the planning and construction of state-funded infrastructure enhancements. And as happened during the privatisation process, reform could be obstructed by risk-averse politicians fearful of losing support from certain segments of the passenger population. In this respect it is telling that ministers recently decided to reject proposals for more flexible pricing.[12] Although the economic case for deregulating fares is very strong indeed, significant reform is unlikely while special interests continue to have a disproportionate influence over rail policy.

10 There is also a strong economic case for phasing out state subsidies on routes that would not be commercially viable, even if this resulted in line closures, although that discussion is not the focus of this paper.

11 Although lobbying for taxpayer subsidies is only one aspect of rent-seeking behaviour in the rail sector. Other targeted policy areas include regulation and industry structure (e.g. franchising arrangements).

12 See, for example, the rail minister's evidence to the Transport Select Committee, 24 April 2013: http://www.publications.parliament.uk/pa/cm201213/cmselect/cmtran/uc874-iii/uc87401.htm

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