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Dear Sir/Madam

1 Introduction

I write as Managing Director of the Railway Consultancy (which has worked for all British franchised TOCS, some open-access operators (both existing and proposed), Network Rail, ORR and the Department for Transport, as well as overseas) and also as a Visiting Lecturer in Railways at the Universities of Newcastle, Birmingham and Sydney (Australia), where my material includes a session on "Railway Ownership and Structure". I write this a few days after new, offpeak-only, open-access rights have been approved for services between London and Blackpool.

I am broadly agnostic on the subject of railway ownership, but there is a wider caucus of academic and independent evidence which should guide the debate on this subject, rather than being limited to the political think-tank papers to which you refer, supplemented by the ongoing work at ITS Leeds.

You also make a number of assumptions, assertions and comparisons in developing your argument which do not themselves follow logically. I do not have the time or resources to deal with all of these, but examine some in the "General Comments" section below, before considering wider evidence and the detail of your proposals. I then highlight a number of key issues before trying to draw some conclusions.

Your comments about the railway industry being unduly risk averse are, I suggest, difficult to substantiate outside the area of operational safety which (I presume) you are not intending to weaken. These come across as subjective and intended merely to discredit opposing views where you have not yourselves been able to put forward a convincing case.

However, that is not to say that I am against open-access operation and, indeed, the Railway Consultancy currently supporting one such application, despite the bureaucratic hurdles put in place (for instance, a requirement to demonstrate funding before even initial track access availability is confirmed). The unresponsiveness of parts of the industry is also shocking; we have been involved in projects where both freight operators and Network Rail have failed to respond to commercial enquiries within three months.

2 General Comments

Your paper contains a number of comments which fail to understand passenger behaviour and/or the practicalities of railway economics, or which are logical non-sequiturs. Taking these in turn:

Passenger Behaviour

You repeatedly make the point that competition brings lower fares, but that is often limited to a consideration of point-to-point fares. Fares for journeys that passengers actually want to make (e.g. including connections, or across country borders) have not benefitted equally; the increase in the number of passengers in Britain having to buy multiple tickets, in order to get value, is an example of this. This means that your assertion that competition necessarily benefits rail passengers needs to be qualified.

The equivalent issue with service is the 'network effects' argument made repeatedly by Jonathan Tyler in his development of Taktfahrplan proposals for Britain. These follow practice from Switzerland, which is a country notable for its absence of competitive operators, because the network is managed as a whole.

Thirdly, your consultation paper makes no mention of equity impacts, which can be severe – intermediate communities along main lines can fare poorly as a result of competition between the key cities. More non-stop services from London to Newcastle are likely to put downward pressure on the (smaller) markets for travel to/from centres such as Grantham and Retford, but market size is *not* the correct measure of comparability. This is important, because it underscores a conceptual error in your objectives: aside from considerations of whether or not we should be trying to minimise the total amount of travel (to support environmental objectives), the correct aim of transport planning is to minimise total generalised cost, thus:

$$\min \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{p=1}^{p} (Pij \; x \; Gij)$$

where
Gij = generalised cost of travel from i to j (n origins and destinations)
Pij = number of passengers between i and j, summed across all passenger types p

Large time savings to smaller markets can be as valuable as smaller time savings to larger ones, but this is not an outcome guaranteed by greater competition – in fact, I suspect that the reverse is more likely.

Your comment about the limited use of inter-available tickets fails to reflect the reasons why this might come about, especially in the inter-city market. For instance, Grand Central offers such large discounts for its own website-based dedicated fares, whilst failing to provide these fares at all for journeys beyond its own network, that passengers are effectively forced to buy multiple tickets. In a recent example, the fare offered by GC for London (King's Cross) to Eaglescliffe was £30, but was £90 from Crystal Palace (only 10 miles from King's Cross), because that would have involved GC in more complicated revenue-sharing arrangements. The taxi fare from Crystal Palace to King's Cross is only £50, and the train/tube fare under £10, so of course people don't buy inter-available tickets.

Practicalities

It is also important to consider what we mean by "peak", and what the implications of this are. Many people would link "peak" open access services to "cherry-picking", and such services have generally been rejected because of capacity concerns. However, peak operations may not be profitable, if they use assets not fully-used during the rest of the week. Your comparison of open access operations on the East Coast fails to mention that the new operators have no peak slots, and therefore have no additional Peak Vehicle Requirement; that has to be met by the franchised operator, in order to ensure sufficient long-distance commuting/ business capacity is available in the height of the peaks. It may be, therefore, that limiting open access operators to offpeak periods does exactly enable them to "cherry-pick", since service patterns can be specifically designed around what is operationally-efficient, thereby enabling them to charge lower prices attractive to the time-sensitive traveller.

Of course, if prices are forced down by open access, demand rises – but some of the 'pricing up' by franchisees is merely a reflection of bidders trying to win franchises and maximising income. So it is also not clear that there is a causal relationship between type of operation and level of fares. You also do not seem to reflect the keen level of competition against car for all except the commuting market; car remains the dominant mode for all except the longest journeys (of which there are relatively few).

You also make the assertion that new signalling technologies will increase capacity, but this is only partly the case: they can increase line and junction capacity, but they make little difference to station capacity, which is increasingly a problem on the British railway network. And your comment on the relative financial contributions of users, operators and Government to infrastructure costs does not make clear that Government expenditure is effectively focussed for renewals and enhancements; our analysis shows that users already pay for the operations and maintenance of large parts of the network.

You mention that "offpeak" air load factors rose after competition, but then the largest single journey purpose for railways in Britain is taking people to and from work which is, by definition, in the peaks; much business traffic is similarly-constrained. Offering services from less-adjacent airports is only possible in an air market with longer journey times and lower journey time elasticities. For most Londoners, neither Heathrow nor Gatwick are terribly convenient, and neither would be appropriate for a rail station, because of the greater competition it already faces.

Some of the apparent differences in efficiency between franchises and open access operators are caused by the requirements of the franchise (e.g. to provide a certain level of capacity and/or to operate at times which are socially-necessary but not economic). It is very difficult to model these, which means that you have probably over-stated the apparent benefits of open access.

We whole-heartedly agree that Network Rail's cost inefficiencies are a major cause of the unnecessarily-high costs associated with the British railway industry (although these are reducing), and what may be equally important is the bureaucracy and slow timescales required to negotiate. A

lack of skills and shortage of resources in the train planning function, following its movement to Milton Keynes, is also relevant.

You should also be careful in using the example of East Coast, when comparing franchised with open access operation. Following failure of the previous franchisee, East Coast has recently been run by DOR on behalf of the Government for a number of years, with the specific aim of 'steadying the ship' following a period of turmoil. Service development was not on its agenda (so perhaps neither was efficiency improvement?)

Illogicalities

First, as is recognised in paragraph 6.79, your consultation paper does not always provide a 'do-nothing' example when considering changes in the competitive environment. This matters, both in time-series and cross-sectional approaches. Relative to the first, British Rail improved its efficiency at around 3% p.a. prior to privatisation. Relative to the second, British Rail was relatively efficient at the point of privatisation, whilst many other countries were less so, therefore providing a greater opportunity for the private sector to come in an improve things – and therefore making it appear that privatisation had been a greater success in those countries.

Similarly, in paragraph 4.55, you quote AECOM's analysis of East Coast conditions (finding that, for instance, passenger journeys grew by 42% at stations with competition compared with 27% at stations without competition) without distinguishing what part of this is due to the higher joint level of service provided at stations with competition, and what part is due to lower fares.

Secondly, in paragraph 6.45 you reflect Arup's finding that train service performance improved on the East Coast during the introduction of open access services, without considering whether that might have been due to investments or (e.g. timetabling) improvements made by Network Rail which were wholly-unrelated to open access.

It may be that privately-operated rail freight companies have presided over a significant increase in tonne-miles, but much of the early part of that was determined by longer hauls for coal, whilst traffic won in the smaller-load market has been minimal. Apparent freight train efficiency has largely been driven by investment to replace British Rail's inadequate assets, enabling the operation of longer trains; this is encouraged by Network Rail (for capacity reasons) but this has been at the expense of wagonload and European traffic, which is at pitiful levels.

In summary, I am concerned that your report uses language which is stronger than can be supported by the facts, once a detailed understanding of practical railway economics is taken into account.

3 International Evidence

Although you have clearly consulted with ITS at Leeds University, there is a wider range of evidence which needs to be adduced in assessing this issue, but there are also flaws in the argument that you have tried to develop.

You make the point about new entrants enhancing service quantity, which is of course true. However, you should dig deeper into why this has sometimes been possible. For instance, DB's capacity on the Ruhrgebiet – Hamburg route was insufficient for the demand, because they had insufficient ICE trainsets and did not wish to dilute their image or revenue. A second operation using lower-quality stock at lower fares did not require competition (it could have been sanctioned by the German Ministry of Transport or DB itself) – it just needed more rolling stock.

Your wider references to examples from Europe do not take into account all the relevant local conditions. For instance, in many of them (e.g. Italy and the Czech Republic) base service levels were quite low (e.g. hourly or less). Because of the non-linear nature of the waiting time curve, substantial traffic increases would be expected with increasing train frequency from that level. However, most British main lines operate services at least every half an hour, which limits the potential increase in demand from extra services (as well as the opportunity to run them).

The real evidence about competition in the railway industry is mixed. For instance, Bitzan (2003) demonstrated diseconomies of competition in the US rail freight industry. On the other hand, Mizutani's work in Japan identified that private-sector operators were c. 3% more efficient than public sector ones; it would of course be interesting to know what proportion of that extra efficiency we gain in Britain by tendering *for* the market, although one would not expect management-style contracts to provide the desired efficiency, as was shown by Smith & Wheat's 2012 paper.

Moreover, other arguments are dependent upon cultural and management factors; a particularly good manager may get a potentially-unpromising company structure to work. Nevertheless, Drew & Nash (2011) have shown that there is no evidence to support the EU's view that the full separation of infrastructure and train operations is necessarily more efficient, although Cantos et al (2010) showed that it enabled the entry of new operators, who generally were. However, Harper & Rushton (2014) describe the difficulties in trying to develop an open access operation – which subsequently failed; as both of them are still active in the British railway industry, I would recommend discussions with them about the real practicalities of open access.

Analysis by Nash et al (2013) has examined the impact of competition on passenger services, noting that the more liberalised regimes in Britain and Sweden have been associated with lower coverall costs and higher traffic growth (although economic conditions obviously also play a large part). Although total costs in Britain (e.g. total support per passenger-km or per inhabitant) have risen, this reflects unsustainably-low costs in the pre-privatisation era in Britain. Indeed, success must also be measured against the starting point: the fact that there have been few savings from privatisation in Britain but savings have averaged 20-30% in Germany and Sweden may say more about the initial cost levels in the respective countries.

Overall comments about British railway efficiency also need to include a consideration of Network Rail. Bringing maintenance functions back 'in house' in 2005 enabled NR to save over 20% in track

maintenance costs in Control Period 3 (2004-9), which were a direct example of the 'interface' costs identified by Harris & Godward in 1997. This emphasises the importance of keeping organisational arrangements simple.

Preston's work in the 1990s isolated the optimum size for a train operating company (TOC), which was broadly in line with British Rail's business sectors. The creation of 20+ separate TOCs clearly created companies which were too small and it is that, as well as the desired reduction in complexity of operations at key locations, which made the reduction in the number of franchises sensible. It also underscores why Grand Central has been more successful since the opening of its West Yorkshire route, since it has been possible to spread overheads more thinly. You clearly also recognise that, if open access operators were larger, they could be more efficient than they are at present. However, the railway is bigger as a result of greater demand than it was 10 or 20 years ago, so might support a limited increase in the number of franchises. This is supported by management-type understanding of worker empowerment, to which you also refer: the creation of the TSGN monster franchise would be expected to be too large to manage easily.

4 Your Proposals

You describe four possible organisational changes, and are honest enough to attempt a listing of advantages and disadvantages. However, this means that the case for change to any of them is not made. Changes (some of them significant) would be required, with no obvious net benefit (if there were significant net benefit, your lists of advantages would easily outweigh the disadvantages). Railway manager Gerard Fiennes famously wrote in the 1960s: "when you reorganise, you bleed", so it is important to be sure that the benefits exceed the transition costs. The transition costs of privatisation in the 1990s certainly removed substantial benefits from the overall outcome.

A Greater Role for Open Access

Whilst not against this in principle, your description of this scenario involves the greater separation of profitable from non-profitable services. Whilst making little difference to the mainline service, the branch line consequences of this can be significant. For example, the Cornish branches are heavily dependent upon demand transferring from mainline services, which are broadly hourly and which the branch line services are timed to meet. Capacity restrictions limit branch line frequencies, so they can only meet the services of one mainline operator, and substantial waiting time disadvantages would be imposed by anyone trying to connect to a competing operator. This has already been demonstrated to be a problem in work we did in Cumbria, where Barrow line trains are supposed to connect at Lancaster, but it has proved difficult for them to connect with all the relevant services (e.g. to London, Birmingham, Edinburgh, Glasgow etc.)

We understand that it is already theoretically possible for an open access operator to enter into negotiations with the Department for Transport in respect of supplying a PSO service; we would merely encourage the knowledge of this. Whilst potentially saving the DfT some service costs by replacing an existing franchise obligation, it would be helpful if this could be extended to include some revenue support. Provided that the revenue support required by the open access operator was less than that required by the franchisee (taking into account wider costs e.g. of the total vehicle diagram), that would seem to benefit everyone.

On the other hand, the levy idea seems both unnecessary and entirely unworkable. Why should open access operators in one area suffer a levy to support PSO services in another part of the country? Such a suggestion seems to create a new disincentive to open access operation.

Two Franchisees per Franchise

There seem to be so many disadvantages to this, that it's hard to know where to start. Economies of scale are lost (in an industry where nearly all TOCs are already smaller than what is understood to be the optimum size), passenger (ticket/service) inter-availability is threatened (which matters in a mode dealing with minute-by-minute competition with the private car), and extra bureaucracy is created (the interface costs I estimated at £850m p.a. (Harris & Godward, 1997)).

Greater Overlaps

This policy, on the other hand, is able to be introduced sequentially (minimising Government risk) whilst it has already proven to be effective in places – in fact, in rather more places than you identify (as far as I can see, the entire East Coast route already has inter-operator competition). It would not, however, be necessary to squander significant economies of scale, because the number of franchises does not have to be significantly increased – but what are the obvious areas in which to create

them? Nevertheless, your summary of pros and cons fails to mention a key concern of passengers: unnecessary complexity. Try watching foreign tourists arriving at Gatwick Airport and trying to buy a rail ticket to London out of the c.19 options available, before you recommend too many overlaps.

Licencing

This is somewhat similar to the slot-based system suggested by David Starkie in the 1990s, and completely fails to understand the scale of the railway industry, and the number of arrangements that would have to be made. At present, some 24,000 trains are run every day and, whilst perhaps only 10% of those are inter-city services on the lines you discuss, that would create an insuperable burden on the Department for Transport, Network Rail and others. One of the worst elements of privatisation has been a significant increase in interface costs (see above) and this proposal would exacerbate that.

5 Key Issues

Capacity

One of the important issues here is whether on-line competition is actually feasible, given the physical capacity of the network. Railway capacity is a major subject in itself, but your paper fails to understand the lower value of capacity along an entire line (including at junctions and stations), compared to the capacity at a point: our work for a proposed open-access passenger operator can find plenty of 'part-paths', but very few paths which are attractive over longer distances. This problem is not reflected in any of your comparator industries (rail freight (where journey times are less critical) or, more particularly, air (where there are relatively few constraints in any of 4 dimensions)). Britain does have a relatively-highly used railway infrastructure.

InterCity TOC service patterns are normally fairly under-described in franchise agreements, leaving them to expand services if economically-worthwhile; the recent Stagecoach/Virgin East Coast bid shows this happening in practice. However, it is not entirely clear that there is sufficient market for yet other services, and this is, of course, the 'cream-skimming' problem. On the other hand, it might be that, if Network Rail understood the market better, and there was a wider pool of active potential open access operators, it might feel able to spend more on capacity enhancements to satisfy those possible demands. Whether this is practical (in terms of the land-use planning process), however, is another matter.

On the other hand, you are right to note that some track access agreements are unduly inflexible, and this is not limited to franchised operators. Work we have undertaken on the GW main line has highlighted the loss of capacity enforced by the element of access implied by Heathrow Express' point-on-clock slots.

Before dismissing Network Rail's position as unduly risk-averse regarding punctuality, you should remember that market research shows that passengers are typically three times as sensitive to punctuality as they are to journey time, on a per-minute basis. Government instructions to NR to prioritise performance may therefore be in the overall interest of all customers, whether franchised, open access or freight.

However, our work on various projects also makes us believe that Network Rail could slightly increase capacity (and certainly the ease of using it) by providing standardised paths on key routes, and we suggested one pattern for the Didcot – Leamington corridor. Detailed irregularities between different hours of the day have, in some cases, prevented the planning of additional train services – for instance, an inability to return at (xx+1):00 may make an outward journey at xx:00 worthless. The development of standard timetables for the base passenger train service, with a menu of remaining paths for freight or open access passenger, is also being considered in France (Morvant, 2015).

Profitability

A key caveat needs to be made about the potential likelihood of extra open access operations being sought: although Britain has one of the highest proportions of (long-term) profitable network of any railway in the world, this tends to be the routes with least remaining capacity. On the other hand, open access operators are unlikely to challenge on corridors on which there is insufficient traffic for

even one company to make a profit. There is therefore a direct negative relationship between profitability and available capacity.

Efficiency

I have kept a keen interest in the efficiency of the railway sector since privatisation, and have also noted the non-appearance of the expected economies of density. However, there are a number of reasons for this which you do not explain. Issues such as the DDA have increased maintenance and operating costs (e.g. of power for lifts, and station staffing). The same has resulted from enhanced passenger-desired quality standards (such as round-the-clock station staffing, or air conditioning), whilst in some cases, BR's expenditure (e.g. on maintenance or repairs) was below the sustainable long-term requirements.

Complexity

You are correct to note that a wider range of fares are offered at stations served by multiple operators, but incorrect to deduce from this that this is necessarily a good thing. Considerable research undertaken by both ATOC and Passenger Focus shows a wide degree of confusion about fares amongst passengers, and a desire for simplicity. This matters more, the shorter the journey, and the more frequent the transaction; even the inter-city routes you discuss have significant proportions of passengers travelling quite short distances over them.

Rolling Stock

A lack of suitable rolling stock has undoubtedly been a factor in limiting open access possibilities. During 2014, we estimated that there were -24 DMUs available in Britain i.e. that franchised services required 24 more DMU vehicles than were required. With capacity hardly available in the (largely-electrified) South East, diesel power would generally be that of choice for open access. The restricted British loading gauge means that the use of second-hand motive power from elsewhere is impossible, whilst simultaneously making the ordering of small batches of new equipment from Continental suppliers inordinately expensive. (It is accepted that safety requirements then necessitate a vehicle approvals process).

Historically, the ROSCOs have not been market-responsive, with almost no orders for trains without guaranteed customers. However, whilst we agree that the situation is easing, we believe that your analysis of this is not quite correct. You note (para. 6.24) that recent applications for open access paths were all predicated on ordering new fleets, but the applications you refer to were all by, or supported by, very large companies. Rolling stock is a much larger barrier for smaller and/or start-up companies considering open access.

Information

Many of the references you make to other industries are in cases where regulatory authorities have much less information available than do operators. However, it must not be forgotten that, because the LENNON ticket sales database is shared within the industry (in order to support important passenger-benefitting characteristics such as through-ticketing), the information disparity in the British rail industry is lower. Combined with the consultation that goes on as part of franchising, the impact of 'local market knowledge' is probably lower than you imply – at least at levels which might enable effective rail competition. (knowing that the 15:xx train needs to run 10 minutes later to

collect school children is valuable local knowledge, but is very unlikely to enable competition, because of the larger 'size' of trains and rail companies).

At present, however, information is a significant barrier to competition. For instance, existing TOCs have automatic (if read-only) access both to electronic timetabling information, and to the LENNON ticketing database, and so can test service options in hours, if not minutes. Prospective open access operators have no such access, and may have to spend months undertaking independent demand forecasting work to get to the same level of understanding. Moreover, the ORR, in its consideration of open access proposals, (understandably) requires demand forecasting to be undertaken through the MOIRA system even though, for new stations and services, this is patently not the best tool for the job.

6 Conclusions

Your paper is based on conventional economic theory (albeit from a right-of-centre political perspective), and cites a range of numerical evidence. However, much of that evidence is circumstantial, and not all of it follows logically, whilst you do not include a number of international academic studies which have been able to prove/disprove some of the assertions made, nor really prove that the market actually exists for more open access operation in what is generally a subsidised market. Your text also does not seem to contain sufficient understanding of the practical realities of passenger behaviour or trying to run an open-access train operation in Britain.

As such, it fails to consider a number of detailed measures which would be of real value in developing open access train services, but instead postulates some significant and unproven changes to the entire railway funding and operating regime. Dismissing any criticism of these ideas as risk aversion by the railway industry is only a smokescreen for failing to provide a logically-argued case for change. The comment about risk aversion is entirely unnecessary, and suggests that this report might have derived more from political, than economic considerations.

However, there are, of course, improvements to be had to railway industry procedures, and there are some good ideas, both in this discussion paper and elsewhere, with the aim of enhancing competition and which are worthy of further consideration, including:

- a more explicit understanding that open access operators should be able to negotiate with the Department for Transport to provide (part) services more cost-effectively than franchised operators;
- a recognition that franchise specifications and track access agreements should not be specified to the minute, as this removes possibilities for Network Rail to maximise the use of capacity;
- the development of regular-interval service patterns for franchised passenger services, with a menu of spare slots for freight and open access, may increase capacity, and certainly the ease of its use;
- a relaxation in the tests applied by ORR to verify operator funding before even indicative access rights have been given, because funders are only likely to guarantee funding if they think that track access will be forthcoming;
- increasing the availability of information to potential open access operators.

Subject to commercial confidentiality, we could explain some of the above in more detail, but at present your case for wholescale change to franchising methods has simply not been made.

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