

# Agenda

## Advancing economics in business

### Changing trains? Assessing options for greater on-rail competition

**What is the economic impact of introducing greater on-rail competition? A regular theme in transport markets concerns how to balance (in the same network) tendering for socially necessary services, and the benefits of competition where services are commercially viable. In December 2015, Oxera and consultancy, Arup, addressed this question for the GB Office of Rail and Road (ORR) in the context of the GB passenger intercity rail market**

There are two main forms of competition in rail.

- **Competition for the market**, where operators compete to win contracts (or franchises) that grant them the exclusive right to provide passenger services on a particular route or franchise area.
- **Competition in the market**, where two or more operators directly compete for passengers in the same product market (e.g. on a particular route). In the rail sector, this is often referred to as 'on-rail' competition, as the operators directly compete for passengers on the same stretch of track.

Debate over the optimal level of competition in and for the market has recently resurfaced in the GB rail sector, which opened up the passenger rail market to competition in the mid-1990s as the infrastructure manager and train operating companies were separated during the privatisation of British Rail. Competition in the GB passenger rail industry has since been primarily 'for the market', with limited competition 'in the market'. Indeed, franchised train services currently account for around 99% of passenger miles in Great Britain.<sup>1</sup>

The franchising system has not been without its successes—in particular, it has provided strong incentives for operators to grow volumes (to generate additional revenue) and to reduce costs over the franchise period, and has provided services with long-term funding certainty across government budget cycles. However, over the lifetime of franchises, operators rarely compete directly with one another, except where franchises overlap (which has become less common following franchise re-specifications in recent years) or where there are parallel routes between city pairs.

There are provisions for open access operators (OAOs) to enter the market and compete directly with the franchisee.

However, entry is subject to the open access services primarily generating new revenue as opposed to abstracting revenue from franchise operations (as determined by the ORR's 'not primarily abstractive' test), and open access competition has, to date, been restricted to a small proportion of the network.

In January 2015 the UK Competition and Markets Authority (CMA) began a policy project—not a formal investigation or market study—to examine whether increasing competition in passenger rail services would result in better value for money and improved service quality in the sector.<sup>2</sup> This article outlines the options that the CMA identified for increasing on-rail competition, and provides an overview of their economic impact.

#### What are the options?

##### Option 1: increasing the role of OAOs alongside franchises

The first option considered by the CMA is to increase the extent of open access competition on the network. The increased presence of OAOs would be likely to increase competitive pressures, outside of franchise competitions, with open access and franchise operators competing on price and service quality, which would result in a reduction in fares and/or improvements in services for passengers at the market level. Given the different incentives on OAOs and franchise operators, it seems likely that this option would see a range of new business models being developed to better match consumer preferences with the product offering, and potentially significant reductions in fares (both from the OAOs and, as a competitive response, from the franchise operators).

In addition, it seems likely that the efficiency of passenger operators and (given the different incentives on OAOs)

the efficiency of the network infrastructure would improve, as OAOs develop new business models and franchise operators copy some of these improvements (subject to the constraints of their franchise agreements and any historical contractual arrangements such as those regarding pensions).

However, significantly expanding the number of services run by OAOs is likely to create friction with the ORR's duty to have regard to the funds available to the UK Secretary of State for the purposes of his functions in relation to railways or railways service. At present, the DfT takes franchise revenues above costs (including a profit margin), and uses these 'premium' payments to subsidise other activities in rail (and elsewhere in its remit). More open access competition would reduce these payments. Under European law, OAOs pay only variable track access charges while, under the current system, franchised operators also pay fixed access charges to Network Rail, the infrastructure manager of the rail network. The CMA's suggested approach is for OAOs to contribute towards fixed track access charges and to use the construct in European law of a 'PSO Levy', which would in effect be a payment from the OAO to funders to compensate towards the loss of premium payments.<sup>3</sup> More work is needed to develop this levy from the simplified version used for our analysis, and explore its implications in the context of (existing and proposed) EU legislation.

## Option 2: having two competing franchise operators in each franchise area

The CMA's second option is to appoint two franchisees for each franchise, rather than one. There are a number of ways in which this option could be implemented, including by splitting the franchise approximately in half; or by dividing the franchise asymmetrically into a profitable part and a socially necessary but loss-making part.

This option would be expected to deliver some fare reductions and quality improvements, as the franchised operators would need to compete with each other for passengers. Under Option 2, both operators would be franchised such that funders would have the same ability to specify minimum levels of service to deliver economic and social benefits as they would in the current situation. However, the extent of competition is likely to be less than under Option 1, as both franchises would be subject to franchise agreements, which would be likely to limit their responses to the greater levels of competition.

## Option 3: increasing the overlap between franchises

The CMA's third option is to increase the overlap between franchises (i.e. the extent to which different franchises cover the same routes). The impact of Option 3 is very much dependent on the extent of direct competition that is created through the redrawing of the franchise map. In general, it is expected that competition created through overlapping

franchises will be more limited in extent than competition created by splitting franchises in two. This is because the overlaps may be limited in geographic reach, but also because it is more likely that the franchises will serve differentiated markets.

In a similar way to Option 2, the introduction of more intense on-rail competition would strengthen operators' incentives to improve efficiency, although franchise operators would have limited flexibility to reduce costs, given the franchise specification. It is presumed that the creation of overlapping routes is likely to result in an overall fragmentation of the franchise map and a loss of economies of density, which could potentially offset any efficiency gains.<sup>4</sup>

## Option 4: licensing multiple operators, subject to conditions

The CMA's fourth option is the most radical departure from the current industry structure and would require the licensing, through either an administrative procedure or an auction process, of multiple operators. This option could be implemented in many ways, and the requirements to maintain access to particular parts of the network that might not be commercially attractive could also be handled in many ways.

Creating a system of licensing poses challenges in terms of ensuring that socially valuable services continue to be provided, without undermining the objective of encouraging innovation. Oxera and Arup did not consider that these challenges would be insurmountable, although at present there is limited information about how Option 4 would work in practice. We did not formally assess the quantitative impact of this option, although it might offer significant benefits to consumers due to the level of competition between operators that is likely to be invoked. In particular, Option 4 might allow operators to compete as one 'type'—i.e. without the current distinction between franchises and OAOs that can cause controversy. This could help to drive lower fares and improved services for customers, thereby making the most efficient use of scarce network capacity. Furthermore, the potential funding issue due to the DfT no longer receiving franchise premiums could be resolved through path auctions. Given the potential benefits that could be achieved under this option due to significantly higher levels of competition, further work should be undertaken to scope out how it could be implemented.

## Assessing competition impacts

To assess and quantify the impact of introducing greater on-rail competition, Oxera and Arup drew on a conceptual framework developed by Oxera and outlined in a December 2015 *Agenda* article.<sup>5</sup> Conceptually, we considered three main mechanisms through which greater competition can affect market outcomes:

- price competition from new entry;
- efficiency gains from new entry;

- changes in product offering.

The extent to which these outcomes occur is likely to be influenced by the type of greater competition—for example, whether it is direct competition only, or whether there is an additional indirect ('halo') effect. In the case of on-rail competition, the key was to evaluate the mechanism that was likely to occur under each of the options, and then substantiate this with empirical evidence.

## And the winner is...

Oxera and Arup quantitatively examined Options 1–3 and provided a qualitative assessment of Option 4, focusing on the three main intercity franchises. It is therefore difficult to compare the options directly. However, none of the options are inconsistent and it may be appropriate to use a range of models on different routes, depending on the characteristics of each route and the market it serves. Of Options 1–3, we found that **Option 1** was likely to deliver the highest level of benefits—primarily through lower fares for passengers but also as a result of improved efficiency. This is shown in Figure 1.

The analysis suggests that Option 2 would also be expected to deliver significant net benefits overall when compared with the status quo. However, less optimistic assumptions were employed here due to the loss of efficiency that might result from dividing a franchise into two separate operators. This is shown in Figure 2.

The impact of Option 3 is very much dependent on the extent of direct competition that is created through the redrawing of the franchise map. In general, it is expected that competition created through overlapping franchises would be more limited in extent than the competition created by splitting franchises into two, or the significant increase in open access services in Option 1.

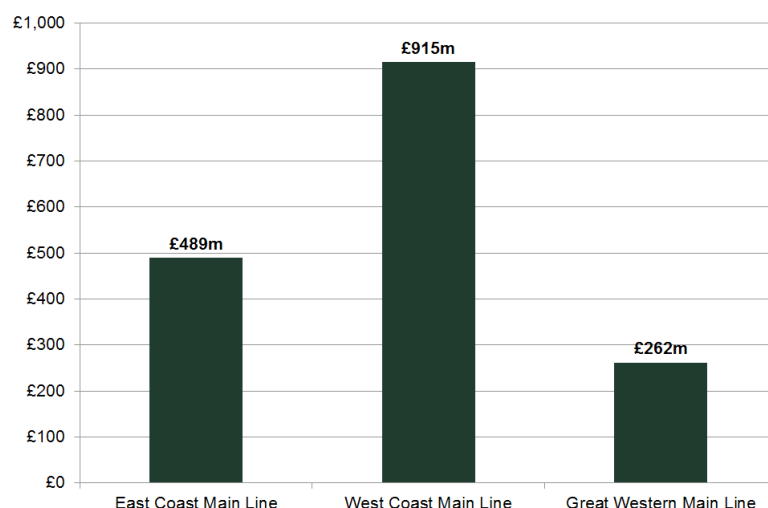
Oxera and Arup's quantitative analysis focused only on the Great Western Main Line for this option (given the need to redraw the franchise map with sufficient overlaps). We estimated that Option 3 would generate an NPV of around **£56m** in the central case, which is significantly less than the NPV estimated under Option 1 for the same franchise (£262m).

Despite not formally assessing Option 4, our qualitative assessment concluded that large benefits could be achieved under this option due to the potential for significantly higher levels of competition relative to the current system.

## Conclusion

Increasing competition in passenger rail markets is on the agenda of policymakers and regulatory authorities across Europe. Experience from Great Britain, which was at the forefront of rail liberalisation 20 years ago, shows that competition can have a significant impact on outcomes in the rail sector. All three of the CMA's options for more

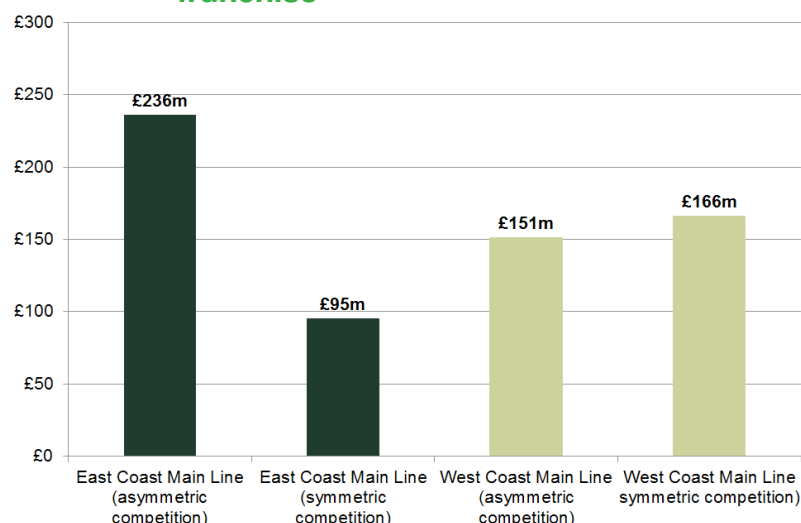
**Figure 1 NPV (£m) of Option 1: increasing the role of OAOs**



Note: 20-year appraisal period assuming implementation in 2023. Results are given for the central scenario only and are assessed against a 'do minimum' scenario. The analysis excludes a range of potential impacts (such as impacts on service quality, capacity and reliability) that are assessed qualitatively and are not captured in the economic appraisal of the options.

Source: Oxera and Arup.

**Figure 2 NPV of Option 2: two franchisees for franchise**



Note: 20-year appraisal period assuming implementation in 2023. Results are given for the central scenario only and are assessed against a 'do minimum' scenario. The analysis excludes a range of potential impacts (such as impacts on service quality, capacity and reliability) that are assessed qualitatively and are not captured in the economic appraisal of the options.

Source: Oxera and Arup.

on-rail competition that could be quantitatively assessed—greater open access; multiple operators per franchise; and increased franchise overlaps—would have benefits relative to the status quo. While this analysis was specific to Great Britain (or, more specifically, three franchises in Great Britain), the implications for the rest of Europe are clear—more competition on the tracks is likely to be a good thing for passengers and taxpayers in the long run.

This article is based on Oxera and Arup (2015), 'Impact Assessment of the CMA's Options for Increasing On-Rail Competition, Final Report', prepared for Office of Rail and Road, 31 December, <http://www.oxera.com/Latest-Thinking/Publications/Reports/2016/Impact-Assessment-of-the-CMA-s-Options-for-Increas.aspx>.

<sup>1</sup> Competition and Markets Authority (2015), 'Competition in passenger rail services in Great Britain: a discussion document for consultation', 17 July, p. 6, para. 1.10.

<sup>2</sup> Competition and Markets Authority (2015), 'Competition in passenger rail services in Great Britain: a discussion document for consultation', 17 July.

<sup>3</sup> In this context, the phrase 'PSO Levy' is an imperfect descriptor of the mechanism, although we retain it given its use in the CMA report. As noted in European Directive 2012/34, the PSO Levy is considered to be needed to compensate operators for providing socially necessary services, as opposed to compensating funders for receiving lower monopoly profits.

<sup>4</sup> Economies of density express cost savings resulting from a denser network (where density is measured as the number of train miles operated as a proportion of route miles).

<sup>5</sup> Oxera (2015), 'Not mutually exclusive? Assessing competition impacts in an appraisal framework', *Agenda*, December, <http://www.oxera.com/Latest-Thinking/Agenda/2015/Not-mutually-exclusive-Assessing-competition-impac.aspx>.