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03 August 2016

Peter Swatridge
Head of Regulatory Economics
Network Rail

Dear Peter,

Network Rail's cost allocation work

1. I am writing to set out ORR's support for Network Rail continuing the work to develop an improved understanding of the relationship between its costs and use of the network, by extending the cost allocation pilot analysis it has already undertaken on the Wales route.
2. This work has the potential to deliver significant benefits in terms of greater transparency around network costs and provide useful information to decision makers, including Network Rail, operators and funders. Reflecting this, it would be beneficial to continue this work and roll-out the analysis at a national level.

Background

3. In 2015 Network Rail appointed Brockley Consulting to undertake a review of cost allocation and cost attribution approaches in the rail industry, and explore potential alternatives. The initial phase of the project considered cost allocation in terms of both variable costs (i.e. costs that vary in response to relatively small changes in traffic levels) and fixed costs (i.e. all other costs not identified as variable).
4. The report identified two alternative approaches for further consideration:
 - a. revision of the existing approach to fixed costs to reflect a Long Run Incremental Cost (LRIC) or avoidable cost approach, including a revised approach to the allocation of common non-avoidable costs; and
 - b. expansion of the existing approach to allocation of variable costs (based on short-run marginal costs) to include the marginal costs associated with capacity constraints.
5. Having identified these two alternative approaches for further consideration, Network Rail and Brockley Consulting started the next phase of the work to assess the potential effects of applying these alternative approaches by conducting a pilot study based on the Wales Operating Route. The pilot study estimated cost allocations based on these alternative approaches, and compared them with existing cost allocations.
6. This second phase of the work has now concluded and emerging findings have been shared with industry through the Rail Delivery Group's Contractual and Regulatory

Reform Working Group (CRRWG) at a meeting on 26 May.¹ Network Rail is due to publish its final report on this work later this summer.

7. On 10 December ORR published a consultation looking at the way in which Network Rail charges train operators for use of its network². This was the first consultation as part of a review of Network Rail's structure of charges for control period 6 (CP6, which is likely to run from 2019 to 2024) and beyond, i.e. Periodic Review 2018 (PR18).
8. In the consultation, we proposed prioritising development of a better understanding of the drivers of the fixed costs of using the network and how this improved understanding might be reflected in charges (the infrastructure costs package). We confirmed our intention to continue developing this package of options in a letter to industry on 7 April 2016.

The case for extending the Network Rail pilot

9. The pilot study considered first how the allocation of total costs between operators could be revised, in order to better reflect cost causation, and inform an improved allocation of fixed costs between operators.
10. It took as a starting point the method used in the calculation of the fixed track access charges (FTAC) to allocate costs between operators. This methodology relies on allocating costs based on a number of traffic metrics (e.g. train miles, a tonnage metric, electrified train miles etc.). The FTAC methodology only allocates costs to franchised passenger operators.³
11. The pilot study took a number of different approaches to the allocation of fixed costs:
 - a. allocation of total costs to all operators using the route;
 - b. allocation of Regulatory Asset Base (RAB) return on the basis of asset costs;
 - c. geographical disaggregation of the cost base to route sections; and
 - d. moving towards an avoidable cost approach (i.e. an approach that links the costs allocated to train services to the costs that would be avoided in the long run if those train services stopped running).
12. This analysis has highlighted the potential for more sophisticated cost attribution and allocation to refine the understanding of costs. For example, this analysis provides information about the balance of costs between parts of the network that have higher and lower levels of traffic, and the extent to which heavier and faster trains are likely to cause additional costs to be incurred. We would expect further useful information and insight to result from an extension of this work.
13. In our December 2015 consultation on the structure of Network Rail's charges, and the supporting impact assessment for the infrastructure costs package, we highlighted that gaining a better understanding of cost causation in terms of fixed costs could have significant benefits for industry, funders and tax payers. It could help improve decision

¹ An update on the cost allocation pilot study is available [here](#).

² The consultation document is available [here](#).

³ In CP5 a small amount of fixed costs has also been allocated to certain types of freight traffic through the Freight Specific and Freight Only Line charges.

making in terms of for example franchising, capacity allocation or allocation of government funding.

14. More specifically, the methodology developed as part of the cost allocation pilot would for example enable:
 - a. a more accurate allocation of the costs of Network Rail's assets at a geographically disaggregated level. This would provide transparency around the relative costs on different parts of the network, and would ensure costs are transparently allocated to those who use those parts of the network. Note that this does not mean that these costs should be recovered from those users, but could for example provide more transparency around the allocation of government funding;
 - b. following on from the above, this kind of information would be essential in allowing for different forms of ownership of parts of the network in the future (an option highlighted in the conclusions of the Shaw review); and
 - c. allowing the development of options, as part of the PR18 review of charges, of an alternative approach to recovering fixed costs from operators, and possibly promoting more competition in passenger services.
15. As highlighted in our consultation, we believe significant benefits (relative to the costs of obtaining this information) could be obtained through better information and transparency alone – i.e. without necessarily passing this improved information into a charging structure and exposing operators to these charges.
16. Further, we note the analysis has employed a modelling approach which is, as far as possible, based on data already available (or which Network Rail is in the process of developing) such as unit cost estimates for around 10,000 different asset types termed "Asset Lifecycle Profiles". Additionally, the approach has been developed so that it can be replicated on other operating routes and in subsequent years without undue additional work.
17. These two aspects are a significant benefit of the work and mean that extending it would be a practical and useful step that would not impose too many costs on Network Rail and industry, relative to its potential benefits.

Issues to consider in the next phase of work

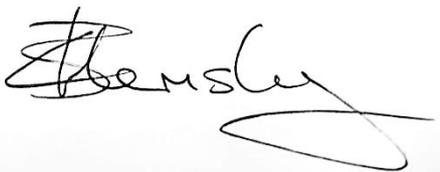
18. In the pilot study Network Rail and its consultants also explored a potential approach for determining the costs caused by traffic in terms of the additional investment that it was likely to cause to take place. This relied on information from Route Studies, which identify constraints on the network and associated enhancement projects.
19. The pilot analysis concludes however that a Route Study approach to estimating the cost of capacity constraints might have significant limitations, not least because:
 - a. in a number of cases, the schemes considered involve benefits going well beyond the simple expansion of capacity, making the identification of the capacity-only element of expenditure difficult.
 - b. in one case, the scheme is at an early stage of consideration, with no detailed estimates yet available.

- c. collectively, these limitations have meant that of the five capacity constraints identified, only one has appeared suitable for a straightforward calculation of the cost of capacity constraints.
20. In light of these conclusions we agree with the conclusions of the pilot study and do not see value at this time in spending more time exploring cost allocations based on estimates of the incremental costs of investment.
21. In terms of next steps, there are a number of refinements and improvements to the methodology for allocating fixed costs which Network Rail and its consultants have already identified. These could be taken forward as part of extending this analysis to cover the whole network.
22. One particular area for further consideration is the analysis of the extent to which peak traffic can be said to have caused costs to be incurred (i.e. the costs that would have been avoided in the absence of peak traffic). This is an area that has not been explored in great detail in the pilot, partly reflecting the absence of a significant peak in traffic in the Wales route.

Next steps

23. We welcome the outputs from the cost allocation work and believe this work could significantly improve overall understanding in the industry around what causes costs to be incurred in the long run. We hope the results of this work will stimulate discussion among stakeholders, who will work with Network Rail to help it refine and further develop this work.
24. This letter is also being published on our website to allow for wider stakeholder engagement with this work.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Chris Hemsley', with a large, sweeping flourish underneath.

Chris Hemsley