
Peer review of First Interim Evaluation of High Speed 1

Note prepared for Department for Transport

Introduction and scope

The Department for Transport (DfT) commissioned me¹ to carry out a peer review of the First Interim Evaluation of High Speed 1 (HS1) report prepared by Atkins, AECOM and Frontier Economics.² The scope of my review focused on the approach and methodology described in the report and Appendices. It did not include a detailed audit of the models or other spreadsheets underlying the report.

Scope and time horizon

As noted by the report's authors, the evaluation of HS1 should be thought of as a programme of study, including ongoing monitoring/data collection. The authors suggest that the planning for ex post evaluations is an important part of the evaluation process and point out that, in this instance, the absence of an evaluation plan including a monitoring system for ongoing data collection has posed significant challenges. I would agree with this and note that this is especially important for large projects like HS1, where future decision making would be greatly improved by robust research on existing projects.

The scope of the impacts considered in the report is largely consistent with the DfT's WebTAG guidance.³ This is both a strength of the evaluation, in the sense that there are well-established and accepted methodologies and principles behind the analysis, and also a weakness, as the scope of the WebTAG guidance could fail to fully capture the impact of the project. As Oxera has suggested in the past, the assessment of high-speed rail projects might warrant

¹ The views expressed in this document are those of the author (Andrew Meaney) alone, and represent his professional opinions on the matters to which they refer.

² Atkins, AECOM, Frontier Economics, 'First Interim Evaluation of the Impacts of High Speed 1: Final Report: Volume 1 – Main Report'.

³ Department for Transport (2014), 'Transport analysis guidance: WebTAG'.

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a wider scope due to the large-scale, and potentially transformational, nature of such projects.⁴

Overall comments

With regard to the time horizon of the study, I note that an evaluation at this stage of the project relies heavily on forecasts to estimate benefits (and, to a lesser extent, costs). From the appraisal period of 60 years (66 years if taken from the completion of section 1 of HS1), only ten years of the project's benefits have been realised (and only four years for the full project). This issue is intensified by the recent recession, which has delayed a number of the expected benefits, such as regeneration. As a result, a significant proportion of the project benefits (and therefore the benefit–cost ratio, BCR) are still unknown and are based on long-term forecasts.

It is surprising not to see much reference to the original ex ante appraisal in the report. While the ex post evaluation rightly generates its own counterfactual, I would expect the original ex ante appraisal to play more of a role in providing context to the results of the evaluation.

Forecasts

The future demand forecasts are based on a survey of the counterfactual. I acknowledge that owing to the lack of data available on the counterfactual scenario, using a survey is a reasonable approach to estimating the demand impact of HS1. In addition to the survey, it would have been helpful to see some form of quantitative analysis using supplementary data to cross-check the results.

I note the use of a cap on demand growth starting in 2033. This is consistent with the guidance suggested in WebTAG for a demand growth cap starting 20 years from the date of the appraisal. The cap on demand growth is likely to suppress both the user benefits and the likely value of future franchise awards, and increase the cost of ongoing subsidy paid by government to domestic operators. I consider the use of this form of demand suppression to be inappropriate in this case. For an ex ante appraisal, there is a case for adopting this form of demand cap to ensure consistency across schemes (which will be implemented in different years) and to build in a degree of caution in decision making when dealing with large investments. However, once the investment has been made, and baseline costs and demand are known, there is no longer a strong justification for a deliberately cautious approach. Instead, the objective should be to provide the best possible view of future demand. While, clearly, the challenges with long-term forecasting remain relevant, the uncertainty associated with the forecast could be dealt with using sensitivities on the central case.

Assessment of user benefits

The assessment of user benefits covers the majority of user impacts that would be expected in this type of transport appraisal. The methodology implemented generally follows the approach and framework outlined in WebTAG (and the Passenger Demand Forecasting Handbook, where relevant). I therefore consider that the approach taken is reasonable. However, I recommend that:

⁴ See Oxera (2013), 'Not in my kitchen: the economics of HS2', *Agenda*, February.

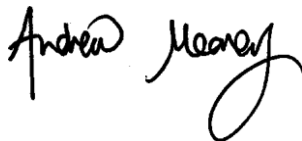
- the impact that HS1 has in terms of adding an option value for individuals travelling to Europe (i.e. the number of additional destinations that can be reached within target journey times for high-speed rail) should also be considered and quantified;
- an assessment of the likely size and sign of a terminal value for costs and benefits at the end of the appraisal period should be undertaken, given the timescale over which the project is expected to generate costs and benefits.

Conclusions

In summary, the First Interim Evaluation of High Speed 1 (HS1) report presents a useful initial analysis of the impact of HS1, and the estimation of the impacts and benefits of the project broadly follows established methodologies such as WebTAG and the Passenger Demand Forecasting Handbook. That said, I consider that there could have been scope to explore whether the assessment could have been extended to take into account the large, and potentially transformational, nature of HS1.

The use of a survey to establish a counterfactual case has clear limitations, and highlights the importance of establishing a monitoring and evaluation plan in the early stages of scheme development. While the report's authors do note the issues associated with relying on the survey, I consider that there could be greater use of supplementary evidence as a cross-check. More reference could also be made to the original ex ante appraisal to provide useful context for the reader.

Finally, I would note that the use of the demand cap in the forecast is likely to understate the benefits of the project and potentially overstate the costs. While the approach is in line with current appraisal guidance, it is less appropriate for assessing a completed project.



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