High-Speed round up

[Posted by Prof Henry G. Overman]

In light of today’s HS2 vote, a quick post on where things stand in terms of our understanding of costs and benefits.

1) Other ways of spending the money: Using standard methods HS2 has a benefit cost ratio of 1.8. Including wider economic impacts this rises to 2.3. This does not represent high value for money. For comparison see, for example, the BCRs for projects considered by Eddington. These numbers do not include wider economic impacts, so should be compared to the 1.8 figure for HS2. Evidence considered by Eddington doesn’t suggest that the wider economic impacts are particularly big for inter-city schemes. If anything they are stronger for intra-city schemes, so if we could add in the wider economic impacts for the Eddington projects this would make the relative return on HS2 look worse.

2) Other ways of addressing the north-south rail capacity ‘problem’. One option would be different pricing. This option has not been properly considered. A second set of options involve improvements to the existing networks. As outlined in section 6 of the strategic case the alternative to the full-Y has a BCR of 3.0 (including Wider Economic Impacts) considerably higher than HS2. The case for HS2 suggests that there would be lots of disruption associated with these alternatives. These should be costed, compared to the disruption costs for HS2 and the BCR’s adjusted accordingly. Unfortunately this hasn’t happened because ‘the alternatives are at an early stage of development’. Whatever you think of HS2 it is deeply depressing that parliament is being asked to vote on whether to initiate the project when we haven’t fully considered the alternatives.

3) In this kind of appraisal, the standard BCR and the wider economic impacts represent the ‘knowns’ and the ‘known unknowns’, respectively. There could be other benefits out there that this modelling doesn’t capture. That said, I don’t think these other elements are likely to be large given the evident to date in the academic literature. For example, the increased accessibility from HS2 might generate fast growth as a result of ‘agglomeration benefits’. However, most of the academic literature suggests that these effects are more important at small to medium scales (i.e. within cities) rather than large scales associated with HS2. That suggests that these additional effects might improve the central BCR a little, but not a lot. This would also be true for other schemes so it doesn’t particularly strengthen the case for HS2.

4) There is a large amount of uncertainty around the benefits and costs for HS2. In these circumstances it is most appropriate to take the central estimate (1.8-2.3) and discount it if we care about the risk. It is not appropriate to only look at the upside risk and argue that the gains could be massive or to pretend that the central estimate is uninformative and BCR pointless.

Overall, on the balance of the evidence that we have, HS2 is not an awful project (it delivers benefits that exceed the costs) but its not a great project either (there are other options for addressing the problem that we should consider and there are better ways of spending the money).