High Speed Rail – A critique by Professor Stephen Glaister, director of the RAC Foundation – 24th February 2011

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There is no fundamental objection to High Speed Rail (HSR) in principle. But, unless there has recently been a dramatic improvement in its economics, the evidence is that in British circumstances HSR should have a lower priority than many other ways of spending public money to meet the nation's transport needs.

Until the "consultation" is published at the end of February the best estimates we have, come from the March 2010 report by HS2 Ltd, the company created by the Labour government to advise. The proposed HSR line from Euston to Birmingham (opening in 2027) will cost getting on for £26 billion - £17.8 billion to build and £7.6 billion to operate - in today's money, i. e. in discounted cash flow terms. Allowing for net extra revenues the cost to the taxpayer will be £12 billion: approximately £200 for every British citizen. Though a financial loser, the value of the benefits to individuals would be about 2.4 times the costs.

Would it be better to spend this on something else? The costs are immediate: the Spending Review 2010 allocates £750 million over the next four years for preparation of HSR. Meanwhile transport services people care about are being severely cut.

In what follows I take as given the estimates published by HS2. Whilst there is scope for differences of view about many of the assumptions, these are what the government itself have been using.

The following are *not* arguments against HSR:

- HSR will take land and cause disadvantage to particular individuals, particularly property owners on and near the line of route: this is most unfortunate but it is a feature of any major infrastructure investment and we must rely on the normal due process to ensure that individual interests are dealt with reasonably.

- HRS is too large a scheme: the correct question is does it produce sufficient benefit (however defined) to justify the large expenditure?

- HSR will only produce a return after many years: It is a characteristic of big infrastructure investments that they take a long time to plan and bring into service. One of this nation's great failings has been an unwillingness to develop long term infrastructure strategies. The commitment to HSR is one such and to that extent it is to be welcomed.

It is particularly important to scrutinise the commitment to HSR because it is essentially the only strategic transport policy the government has. There is a danger that a fixation with HSR and an implicit hope that it will solve all the major transport problems, will divert attention from other things that require urgent attention.

Strangely, the Coalition Government, and its predecessor, committed to HSR without publishing and debating in Parliament a statutory National Policy Statement for road and rail. This is most unfortunate. A more defensible sequence would be for the government to set out its understanding of the nation's transport needs for the forthcoming decades and then say how it intends to meet them. Then it would become apparent to what extent HSR can contribute to this broader picture. Plainly, there are many things that HSR cannot do, such as meet the needs for local movement of the rapidly growing populations in several Regions of the country. An NPS ought to diagnose these problems and say to what extent, and at what cost, government intends to respond to them.

In the Spending Review 2010 the government spoke of having made "hard decisions about priorities that have allowed us to secure the investment in vital transport infrastructure that will support the national recovery." The reality is that expenditure on rail has, indeed, increased, but the strategic roads have suffered a severe cut in capital and maintenance budgets and local authorities are also likely to have to cut their roads investment, maintenance, road safety programmes. Bus services are under significant threat.

Roads carry 92% of passenger movements and a similar proportion of freight, and it is uncongested, reliable roads that are essential to the economic recovery. This is reflected in the high rates of return estimated by the government for investment in road schemes: when Sir Rod Eddington reviewed the evidence for his report to the Treasury and Department for Tranport in 2005 he documented benefits on average more the four times the costs. Secretary of State Hammond confirmed this in the Spending Review when he announced the road schemes that were to go ahead, saying "for every pound invested, there will be over six pounds worth of public benefits. On some schemes, this figure will be higher than ten." It is safe to assume that a number of the national and local road schemes not approved in the Spending Review would have rates of return considerably better than those estimated for HSR.

Eddington found that Britain is generally well-connected, but that there were problems of shortages of capacity and congestion that risk inhibiting productivity and economic growth. He doubted whether there is evidence to support a policy of transport investment in order to stimulate economic regeneration: transport should follow the growth, not the other way round. He broadly endorsed the methods governments have traditionally used to estimate value for money and recommended that these estimates should be taken into account in making decisions. He also pointed out that there are many smaller opportunities available with good rates of return which one should think carefully about before giving up in order to fund a big project: one could have twelve projects costing one billion pounds each for the price of the HSR from London to Birmingham.

The argument that "everybody else is doing it, so we should" is not an argument: we need to look carefully at the specifics. There are good reasons that HSR is likely to be less effective in Britain than in other parts of the world: construction costs are higher; distances are lower; and, crucially, we already have a fast intercity rail service by international standards. In any case, by no means all HSR schemes elsewhere have turned out to be good value for money. In the US the Federal Government has been offering funding to encourage HSR schemes. But recently Florida, Ohio and Wisconsin have all lost

interest on investigation leaving only California, because, on investigation, they realise that the market for HSR is likely to be weak and they do not wish to be landed with paying operating subsidies in perpetuity.

Is the economic appraisal missing something important? Maybe: but assertions of extra benefits must be backed by some evidence when sums of this magnitude are at stake.

Some people claim that trains are green and HSR will reduce carbon emissions. Not so. The HS2 report did the calculations and came to the conclusion that the HSR scheme to Birmingham would be broadly carbon neutral.

HSR does little for road congestion. This is simply because most trips on the road are far shorter than those served by HSR. HS2 estimated that HSR would reduce traffic on the M1—on the same line of route—by about two percent (a couple of years worth of traffic growth). In any case, HSR only serves a limited number of corridors and can offer nothing to roads elsewhere.

Transfer from domestic aviation turns out to be a minor consideration when one looks at the trip patterns: only 8% of HSR's passengers were expected by HS2 to com from domestic aviation.

Are there "agglomeration" benefits, not accounted for by conventional time savings? There is now some evidence that within big cities there are, indeed, additional benefits of easy access to one another. But the research for HS2 suggested that these are negligible over the distances involved for HSR.

Claims will be made for job creation. Of course, a massive public infrastructure project will create new jobs whilst constructing it (many in the London area, where the engineering is particularly expensive). But so would spending the same public money in a different way. Claims are made for long-term job creation in the cities served by HSR. Maybe, but this is difficult to substantiate objectively. One important issue is the extent to which these jobs have been transferred from other places: certainly cities not served (in South Wales, for instance) will complain about the increased competition. Further, there is the risk that, rather than helping the Birmingham economy to flourish, HSR would see Birmingham become a dormitory city for a flourishing London.

Little research has been published on whether HSR would help the rich or the poor most. But we do know that the present railways are predominantly used by those on higher incomes. It seems likely (though this needs to be researched) that HSR will have the same characteristic. Certainly, the HS2 study showed that a significant proportion of the benefits accrue from time savings to business travellers.

Ministers have claimed that HSR would help to cure the "North-South divide." It is quite unclear what this might mean or what the evidence is in support of the proposition.

HSR as proposed will actually achieve just two main things. It will make long distance journeys between the cities served quicker: offering the benefits of the time savings to users. And it will provide a massive increase in rail capacity along the specific lines of route: the design allows for up to 18 trains an hour in both directions as far as Birmingham, each with a potential for 1,000 seats.

Whilst there will likely be a need for more rail capacity between London and Birmingham, this is more than will be necessary for a long time. In the consultation the government will be discussing the merits of approaching the capacity problem in other ways, to see if there are ways of achieving a smaller increase at considerably less cost, and hence giving better value per pound spent. The present proposal amounts to good-old predict-and-provide: forecast what the growth in demand is going to be and then provide the capacity to meet that demand, whatever the cost. A better approach must be properly considered.

The bottom line is that unless the estimates published in March 2010 have become significantly more favourable in the meantime, the benefits for which there is hard evidence are simply not high enough to justify the expenditure of public money – money which would be better spent on other things at a time of painful cuts in other areas of transport policy that directly affect a far greater number of people.

High Speed Rail has become an article of faith with insufficient evidence to support it.