The Red House
10 Market Square
Old Amersham
Buckinghamshire
HP7 0DQ

16 September 2010

Chancellor of the Exchequer
Rt Hon George Osborne MP
HM Treasury
Horse Guards Road
London SW1A 2HQ

Dear Chancellor of the Exchequer,

High Speed 2 (HS2): an opportunity to save many £billions

I am writing to you in connection with the economic case for HS2, on behalf of HS2 Action Alliance. HS2 Action Alliance are a not for profit organisation aiming to ensure sound government decision making on HS2.

We are concerned that the economic case for HS2 is inadequate, and that if it proceeds it will result in the waste of considerable sums of public money. As you know, such funds can only be provided at the cost of real deprivation to some and a reduction in the quality of life for many others.

Our principle concerns about the economic case for HS2 are:

- The demand projections underpinning the case are exceedingly high compared to those made by other reputable bodies, and are anomalous in the context of clear evidence of saturating overall demand for domestic travel
- The benefits are considerably overstated, depending on plainly false assumptions about the usefulness of time spent on long distance train journeys, and unrealistic crowding benefits
- DfT's assessment methodology ignores the important social cost of loss of property values resulting from HS2's blighting affect on properties in the vicinity of the route
- Lower cost alternatives are discarded on inadequate grounds –despite meeting HS2 Ltd's demand projections and having better net benefit ratios
- Ignoring new capacity being achievable (by lengthening trains) without disruption
- Competition that will undermine any case for HS2 is assumed away.

We are additionally concerned that the government seems to be favouring HS2 on three bases that are transparently incorrect:

- That HS2 will be part of the low carbon economy, when DfT's own White Paper on HS2 says that it is only 'broadly neutral'[1] on CO_2, and induces a major increase in

travel that would otherwise not occur – which seems diametrically opposed to the aim of the new portfolio responsibility within DfT for 'non travel'[2]

- That there will be considerable regeneration benefits to the regions, when the analysis commissioned and published by HS2 Ltd shows that the wider economic benefits of high speed rail in the UK will be minute[3], and the forecast increased demand is predominantly leisure trips to London which will increase spending in London at the expense of the regions
- That high speed rail will greatly reduce domestic flights, when domestic air travel is already declining, and with the growth that there is being on routes that will be unaffected by high speed rail routes. Furthermore, if domestic flights are reduced they will be replaced by more polluting long-haul ones.

These further points are covered in a letter sent to your colleague, Philip Hammond, the substance of which is attached.

Demand

The cost benefit assessment is based on massive increases in demand – demand with HS2 on the West Coast Main Line (WCML) route is forecast to increase by 267%[4] for 2033. And large forecast increases are not restricted to long distance rail journeys, with a 44%[5] increase in long distance car journeys and 178%[6] increase in domestic air passengers.

HS2 Ltd's forecasts are out of line with other estimates of long distance rail travel – even before taking the huge uplift in demand accredited to HS2 itself (a further 133%, taking the total forecast increase to 267%). This is shown in the table below.

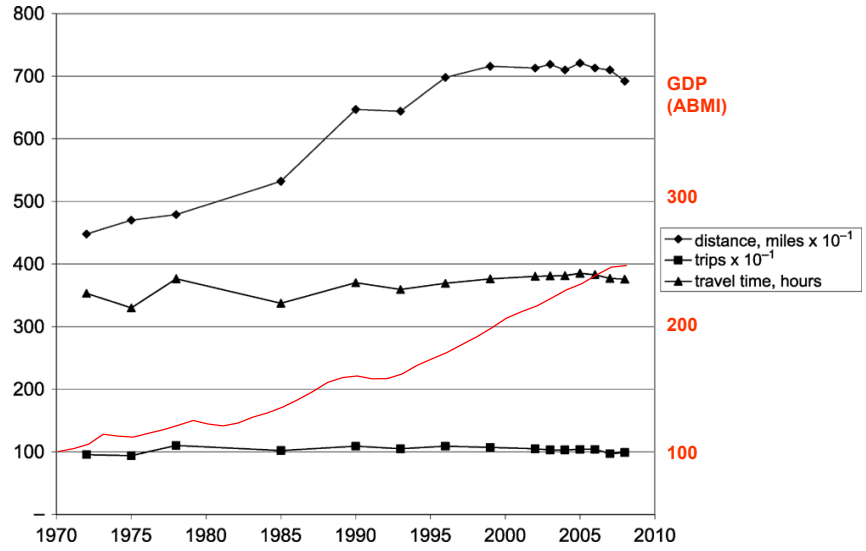
Forecasts of long distance rail travel demand

Source	date	period	increase	annual rate
DfT[7]	2007 (July)	2006-2027	65%	2.4% (1.8% from 2017)
Network Rail[8]	2010 (August)	2008-2034	70%	2.1%
Prof J Dargay[9] (for Independent Transport Commission)	2010 (January)	2005-2030	35%	1.2%
HS2 Ltd (Atkins)	2010 (February)	2008-2033	133%[10]	3.4%

It should be noted that just a 20% shortfall on HS2 Ltd's forecasts would reduce the net benefit ratio (NBR) to below 2[11].

HS2 Ltd's estimates are impossible to square with recent historical evidence. Total domestic travel (from all modes) has saturated, (see graph below) with per capita total domestic travel static for 15 years (on National Travel Survey data), and long distance domestic travel similarly saturated. This is dominated by the reduction in the growth of car travel, but also applies to coach travel and, in recent years, domestic air travel. This no doubt relates to the growth of international travel, road congestion, as well as some element of simple demand saturation. The relationship with GDP that drives HS2 Ltd's forecasts has in reality broken down.

Travelling time, journey numbers and distances per person (compared with GDP)[12]



Although total domestic travel is saturating, long distance rail travel continues to increase. But this is model shift in response to improved rail services. There is no underlying long term relationship with GDP: total train passenger kilometres were static from the 1950s to about 1993, since when demand grew in response to major service improvements that themselves resulted from large increases in funding following privatisation.

HS2 Ltd assume that demand for long distance rail travel will continue to grow with GDP until 2033. This is despite there being no historical link between GDP and rail travel, and there being clear evidence of demand saturation for domestic travel generally.

Benefits

The largest benefit attributed to HS2 is the time savings to travellers (over £13bn[13], or about 40% of the benefits). This is plainly overestimated (and DfT have conceded as much to us[14]) on two counts. Firstly it assumes that all time on a long distance train is wasted, and secondly uses out-of-date data on the value of business travellers' time. It takes no account of current on-board working practices, nor the consequences of improving information systems on these working practices. There is no doubt that business users already work productively during long distance train journeys[15], and improvements in technology continue to support this. For commuter and leisure travellers, the same technologies are eroding the disutility of time during such journeys, hence reducing any consumer surplus from shortening journey times.

Together these effects reduce the £13bn to perhaps less than a quarter of the sum.

Another large benefit (£5bn[16]) in the HS2 assessment is the reduction in crowding. This arises because HS2 Ltd assumed that demand can grow before HS2 becomes available without the service improvements and investment in capacity needed to support it. They assume that trains would have an all day load factor of 81%[17] in the absence of HS2. This is infeasible for services that are forecast to be predominantly trips to London (like commuter services). To reach 81% either people would have to stay overnight or suffer crush loading on the trains servicing the trips to London. For the 133% increase in demand to develop, more capacity would be needed before 2033 than is provided in the 'do minimum' reference case. Provision of additional capacity is an unavoidable cost to meeting the projected demand, and hence should be reflected in the assessment.

Excluded costs

While several important costs are not monetarised, such as the effect on the local environment, generally such aspects are assessed elsewhere within appraisal framework (eg under 'sustainability'). However, the reduction in value of properties adjacent to the line is not included – only the sums required for the planned compensation schemes, which are significantly less than property owners lose.

The compensation payments made for acquiring property necessary for the construction or operation of the railway, the exceptional hardship scheme, and compensation payments (a year after starting to operate the railway) for the nuisance of the railway once constructed do not represent the full cost of value loss. The greater part of this loss is currently borne by those private individuals and companies owning the properties. This loss can be estimated, as they are naturally measured through market value, and is apt for inclusion in the cost benefit analysis.

That the loss is a private one is no reason for its exclusion in the cost benefit assessment, it is a cost in the way that travellers' consumer surplus is a benefit. Even if the government does not intend to compensate those suffering losses, while an offence to natural justice, this is no grounds for disregarding the cost in the appraisal.

Alternatives:

DfT's treatment of alternatives is profoundly unsatisfactory – partly because the best alternatives are not developed and partly because the alternatives are not given proper consideration in the assessment.

A 65%[18] increase in capacity could be provided on the WCML through additional rolling stock with trains lengthened from 9 to 12-car. The analysis conducted by Atkins for DfT[19] (reported under the title of 'Rail Package 1') shows that this is practicable without additional work on the infrastructure and therefore without disruption. This would meet the level of demand projected by the Independent Transport Commission, Network Rail, and previously by DfT for the 2007 White Paper. It also substantially answers concerns about disruption.

There is also considerable potential for additional capacity through additional rolling stock on the Chiltern Railways service between Birmingham and London, which will have been upgraded for next summer to offer fast services.

The lowest cost means of meeting HS2 Ltd's projected demand, which involves fully exploiting the potential for longer trains, is neither costed nor combined with other options.

However an alternative is developed ('Rail Package 2') that meets demand and has a higher net benefit ratio than HS2 (3.63 compared to 2.7). However, this is discarded on the basis that it does not create the surplus capacity that HS2 would[20]. The value of other benefits, eg shorter journeys, greater reliability etc are all included in the NBR calculation for which Rail Package 2 is superior to HS2. This rejection is despite the absence of a value for surplus capacity, and the fact that surplus capacity would be used to run competing services which would undermine the business case – unless competition is suppressed.

Atkins also develop packages of changes to the roads, as alternative means of addressing road congestion. 'Road Package 2' has a net cost of £1.4bn and a NBR of 3.66[21].

DfT should not have assessed HS2 against the 'do minimum' reference case. This reference case fails to accommodate the projected demand. The assessment should have been against 'Rail Package 2' (or a more cost effective variant) and 'Road Package 2'. This would have shown that the incremental benefits of HS2 against its net costs represent an inadequate return on the subsidy required – even without consideration of any of the other factors that erode the economic case that DfT presents.

Although this is ignored in DfT's assessment, the alternatives (developed for DfT) to a new railway can be implemented incrementally against emerging demand and in advance of HS2 being available, and avoid WCML running out of capacity. This would both improve the net benefit ratio of the alternative and eliminate the considerable risk of investing to meet an overestimated demand. If the government proceed with HS2, should emergent demand be materially less than HS2 Ltd project, there will be a stark choice: abandon the construction – writing-off billions of pounds of cost, or; complete the railway – in the knowledge that it will be an uneconomic white elephant.

In conditions of economic austerity the government is unlikely to enhance its popularity by preferring, on the basis it produces surplus capacity, a high risk project with capital cost of £17.8bn[22] over an alternative that both meets forecast demand at a capital cost of £4.2bn[23]. and net cost of just £2bn. Further, the alternative has a better NBR (despite being made artificially costly) and can be tailored to emergent demand at no penalty.

Competition

HS2 Ltd assume that there will be no competition between HS2 and 'classic' services[24]. Given that HS2 is intended to be extended further north to provide alternatives services to WCML, East Coast Intercity, Midland Mainline and Cross Country services, such suppression of competition would amount to the abandonment of competition on the railways.

A failure to properly take account of competition is a recurrent weakness in major transport infrastructure projects. The actual response of ferry operators was not anticipated in the Channel Tunnel assessment, and assumptions on both traffic growth and the price attainable proved seriously optimistic. The occurrence of low-price air services competing with CTRL was similarly not anticipated, nor was the preference of commuters for the 'classic' Kent commuter services over the higher priced high-speed ones (to the extent that trains have been shortened due to the shortfall in demand).

On the assumption that this government is not content to eliminate competition between railway services, competition between conventional inter-city services and those of HS2 will inevitably result in fewer passengers travelling on HS2 and lower overall fares receipts for all the rail services involved. This will undermine the financing of rail services, reducing or eliminating the incremental fares arising from HS2, and quite possibly obliging services to be supported by on-going government subsidies.

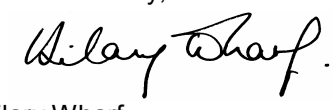
Alternatively, if it is the government's intention to abandon competition, either by extensive price control or the creation of a monopoly, we would be grateful for this to be made clear, as it has widespread and serious implications well beyond the issue of HS2.

Conclusion

In these circumstances the abandonment of HS2 seems an obvious and painless means of saving money, which would allow expenditure to continue where it is genuinely in the national interest. While the body of expenditures on HS2 would not arise before the next general election, HS2 Ltd expect to spend over £1bn[25] during this parliament. This is half the total net cost of an alternative means (RP2) of actually meeting HS2 Ltd's projected demand for 2033[26].

As I mentioned above, I attach an analysis of some popular misconceptions about HS2, the substance of which comprised a letter we recently sent to your colleague Philip Hammond.

Yours sincerely,



Hilary Wharf
Director, HS2 Action Alliance

[1] 'Command Paper 7827', March 2010, Section 5.59, page 95
[2] IBM START Conference, speech by Rt Hon Philip Hammond, 10 September 2010
[3] 'Advice on the assessment of Wider Economic Impacts: a report for HS2' Daniel Graham and Patricia Melo, March 2010, last paragraph page 37
[4] 'Command Paper 7827', March 2010, Sections 5.38 to 5.43, pages 91 to 92
[5] 'HS2 Baseline Forecast Report', Section 1.28, page 7
[6] 'HS2 Baseline Forecast Report', Section 1.31, page 7
[7] 'Delivering a Sustainable Railway, Summary of Key Research and Analysis, July 2007', DfT. Slide TPF9a, page 27
[8] 'Planning Ahead 2010', page 6, section 2.10, Network Rail, ATOC and Rail Freight Operators Association, August 2010
[9] 'The prospects for longer distance coach, rail, air and car travel in Britain' J M Dargay, January 2010
[10] 'Command Paper 7827', March 2010, section 5.38 page 91, growth without HS2 uplift
[11] High Speed 2 Main Report, section 4.4.9 page 189
[12] After Dr Metz based on NTS 2008 Table 2.1 with GDP trend added
[13] 'High Speed 2: Demand Model Analysis' March 2010,Section 10.4.3, page 97
[14] Meeting with HS2 Ltd and DfT, 29 June 2010
[15] 'The Productive Use of Rail Travel Time and Value of Travel Time Saving for Travellers in the course of Work' The Mott MacDonald IWT Consortium, 2008, and 'Travel Time Use in the Information Age: Report', Centre for Transport & Society, UWE, Bristol, and Centre for Mobilities Research, Lancaster University, October 2007
[16] 'High Speed 2: Demand Model Analysis' March 2010,Section 10.4.3, page 97
[17] 'High Speed 2 Strategic Alternatives Study, Strategic Outline Case' March 2010, Table 3.7 , page 38
[18] See attached paper 'Justification for HS2 – A case of myths not reality' for supporting analysis
[19] 'High Speed 2 Strategic Alternatives Study, Strategic Outline Case' March 2010,
[20] 'Command Paper 7827', March 2010, Sections 2.20 to 2.22
[21] 'High Speed 2 Strategic Alternatives Study, Strategic Outline Case' March 2010, Table 4.13, page 63
[22] 'Command Paper 7827', March 2010, Table 5.1 page 95
[23] 'High Speed 2 Strategic Alternatives Study, Strategic Outline Case' March 2010, Table 4.3, page 57
[24] 'Outline for Technical Annex', 091123-ACP technical note, HS2 Ltd, page 19 'Remaining Issues', This document records issues raised by the Analytical Challenge Panel
[25] Information from HS2 Ltd, released on 24 June 2010, under FOI10-047 request by Mel Foster
[26] 'High Speed 2 Strategic Alternatives Study, Strategic Outline Case' March 2010, Table 4.7, page 58

Copies to:

Chief Secretary to Treasury, Danny Alexander, MP
Cheryl Gillan, MP
David Lidington, MP
Steve Baker, MP

Philip Graham, Deputy Director High Speed Rail, DfT

Greg Hands, PPS to Chancellor of the Exchequer, MP