

High Speed Rail (HS2) Consultation Response

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1. Introduction

As the elected Member of Parliament for North Warwickshire, it is my job and my duty to represent the interests of my constituents.

As an elected Member of the House of Commons, it is my job and my duty to represent the interests of the country.

In this case, the two interests are aligned. I disagree strongly with the Government's proposals as set out in the Consultation Document, and I believe that HS2 is the wrong choice for the country and the wrong choice for my constituency.

HS2 is being advocated as a project that is 'in the national interest'. I disagree.

Many of the assumptions in the business case have been challenged repeatedly, yet the arguments have not been addressed by HS2 Ltd or the Government.

2. The Business Case

When the March 2010 business case was revised in February 2011, the Government significantly reduced the expected BCR. Despite this the BCR remains close to the lower limit for a value for money project.

The Feb 2011 business case assumes:

Phase 1 alone:	BCR 1.6
Phase 1 (inc WEI):	BCR 2
Y Network alone:	BCR 2.2
Y Network (inc WEI):	BCR 2.6

There is little room for error. A similar reduction in the assumed BCR to that seen between March 2010 and February 2011 would render the project uneconomic, and yet the entire business case is built on a series of 'best case' scenarios.

In their recent analysis of the economics behind HS2, the Institute of Economic Affairs (High Speed 2: the next government project disaster? July 2011) state: *"It is clear from the outset that there is no business case for HS2 in commercial terms."*

In his written evidence to the Transport Select Committee, Professor Robert Cochrane noted the absence of a financial model for HS2, noting in particular:

“To my continuing surprise, no such analysis has been carried out of either the impact of HS2 on the overall level of annual financial support required by the railway network as a whole or of the financial performance of the HS2 services themselves. This is despite the rapid financial collapse of the two most recent Asian HSR systems, those in South Korea and Taiwan.”

With such a high level of planned investment and such a low BCR, the assumptions underpinning that BCR should be robust. As I shall outline below, they are not.

3. Passenger Growth Forecasts

The passenger number assumptions made in the business case have proved to be highly controversial, and yet they are vital to the economic viability of the project.

The 2010 Command Paper estimated an increase in rail passengers between London and Birmingham of 267% by 2033. Already, by February 2011, this assumption had been reduced to 209% by 2043.

This is an enormous drop in assumed growth in the space of barely a year. And yet the entire business case rests on the passenger estimates being robust. It is difficult to see how anyone can have confidence in these figures, which attempt to predict passenger numbers 34 years into the future based almost entirely on extrapolating the past 15 years of (unusually high in historical context) passenger growth. The methodology used runs contrary to the Department for Transport's own best practice, and is one that the HS2 Action Alliance quote Network Rail (Network Route Utilisation Strategy: Scenarios and Long Distance Forecasts' Network Rail. June 2009) describing as: *“...fraught with risk.”*

Respected industry professional Chris Stokes (High Speed Rail. February 2011), says of the figures in the current business case: *“Forecasts for growth in demand for HS2 are almost certainly overstated and do not take existing evidence or past experience into account.”*

The Institute of Economic Affairs report, after outlining an approach to long-term forecasting advocated by McKinsey strategy consultants, says: *“The DfT has chosen to disregard this approach and takes information from the past and predicts it 75 years hence, to make a ‘best case’ estimate. From a statistician’s perspective, the parameters of uncertainty around this best guess are enormous and get wider with every year.”*

The Department for Transport has described their passenger growth figures as ‘conservative’, and yet has given no justification for this assertion. The Government's record in predicting future passenger growth for major transport infrastructure projects is dire. HS1 has yet to achieve even the lowest initial estimate for passenger numbers.

It is difficult to understand how the Department for Transport can have confidence in these passenger growth assumptions, already significantly reduced from those made

in March 2010. This metric is too important to get wrong, and the business case should be reopened to robust economic analysis and discussion.

4. Value of Time

The value placed on time saved is another controversial metric that has been consistently challenged by many critics. The Department for Transport continues to assume all time spent traveling by train is lost, and continues to assume an average equivalent salary per business traveler of £70,000.

In a report produced for the Transport Select Committee, Oxera Consulting Ltd (Review of the Government's case for a High Speed Rail programme. June 2011) note that the time savings of business travelers represent the largest component of the monetised estimated benefits of high speed rail (some 28% of total benefits). The report highlights research from the Mott MacDonald IWT Consortium study in 2008, which show that: *"...the level of productivity that can be achieved on a train is very similar to that which can be achieved at a normal workplace."*

Oxera tested the sensitivity of the value placed on time to the overall business case, and found that a reduction in one third of the value of time for business travelers significantly reduced the BCR for HS2.

Phase 1 alone (time value adjusted):	BCR 1.3 (down from 1.6)
Phase 1 (inc WEI) (time value adjusted):	BCR 1.7 (down from 2)
Y Network alone (time value adjusted):	BCR 1.8 (down from 2.2)
Y Network (inc WEI) (time value adjusted):	BCR 2.1 (down from 2.6)

It is clear that the potential impact on the BCR of getting the analysis of the value of time saved wrong is significant. More work is clearly needed on this key variable.

5. Alternatives To HS2

A significant criticism of the business case is the continued comparison to a 'do minimal' option. This is highly misleading, and artificially inflates the perceived benefits of HS2.

The widely discussed 'Rail Package 2' (RP2), an additional upgrade to the West Coast Main Line (WCML) designed by the engineering firm Atkins, has been advocated by many industry experts as a cost effective alternative to resolving the looming capacity problem. The additional 'Scenario B' is a wider alternative that includes, in addition to RP2, further upgrades to the Midland Main Line and the East Coast Main Line (ECML).

While the Department for Transport does acknowledge these potential alternatives, there is no comprehensive comparative analysis between these and HS2. In their report for the Transport Select Committee, Oxera state: *"Before assessing the Government's appraisal of HS2 itself, it is necessary to be clear against what the business case for the scheme is being assessed (the reference case). For example,*

is the counterfactual no investment, or some other form of investment, such as further improvements to the West Coast Main Line (WCML)?”

It goes on to note: “While it is unlikely that there would be no further changes to the conventional network beyond 2015 without the High Speed Rail programme, the programme is not directly assessed against more substantial long-term changes to the conventional network.”

And: “The equivalent benefits [WEI] for the strategic alternatives do not appear to have been calculated.”

Chris Stokes is effusive in his analysis of the potential alternative to HS2:

“Rail Package 2, prepared by DfT in its review of alternatives, would cost less and can be delivered faster, has a much better benefit cost ratio and provides for 15 to 16 InterCity trains an hour from Euston. This is clearly effectively the limit on what can be achieved on the existing route, but at present there are only 9 to 10 trains an hour from Euston so it does represent a major increase.

“At the same time, additional vehicles are already under construction to lengthen most trains from 9 to 11 cars, giving 150 extra standard class seats – an increase of 50 per cent. And the existing load factor for the route – the percentage of seats occupied – is probably less than 50 per cent. The economics of rail would be transformed if the industry achieved airline load factors, but let’s not get too ambitious. If, say, the average load factor is increased to 75 per cent through more effective yield management, train capacity is increased by 50 per cent and the number of trains operated by 50 per cent, then the existing route would be able to cope with growth of 237 per cent – almost the HS2 number, and way above the likely actual level of growth.”

While RP2 and ‘Scenario B’ would address the capacity issue, is there still an argument about speed? In their written submission to the Transport Select Committee, Dr Moshe Givone and Professor David Banister (From the Transport Studies Unit, School of Geography and the Environment, University of Oxford) noted the importance of ‘door-to-door’ times when assessing a journey, rather than the ‘station-to-station’ time. They say:

“Passengers are not necessarily primarily concerned with the station-to-station travel time when deciding on their mode choice. Door-to-door travel time is of importance, together with the convenience and reliability (and the cost) of the entire chain of journeys from the beginning to end of a trip...”

“HSR travel is not attractive for many travellers, despite its faster maximum speed compared to other modes, especially when the origin and/or the destination are not close to an HSR station. In addition, any time savings on the rail journey from the high speed section might be lost as a result of the additional time taken for access and/or egress journeys to/from the HSR station. Overall, it might result in more travel and even more travel by car depending on the reduction in the level and quality of

rail transport on the conventional rail network, and the extent to which HSR stations might be more accessible by car than by other modes.”

It seems remarkable that such a significant capital investment in a major transport infrastructure project could be considered, without a thorough and rigorous assessment of the alternatives and the opportunity cost. It is clear this has not been done in this case.

6. Environmental Impact

Much has been made of the apparent green credentials for HS2. However, anything more than a cursory look quickly demonstrates that there is little in the way of an environmental case for high speed rail. This is perhaps why organizations such as the Woodland Trust and the Green Party are formally opposed to the project.

In their written submission to the Transport Select Committee, the Woodland Trust state:

“The Woodland Trust is concerned that the HSR project being proposed by the Government fails to meet appropriate environmental standards as the route will lead to the loss and damage of 48 ancient woodlands. These sites represent an irreplaceable habitat that public policy aims to protect through Planning Policy Statement 9: Biodiversity and Geological Conservation.”

Daniel Albalade and Germà Bel, from the Research Institute of Applied Economics at the University of Barcelona (High-Speed Rail: Lessons for Policy Makers from Experiences Abroad. March 2010) analysed the main high speed rails systems around the world: in Japan, France, Germany, Italy and Spain. Their report (High-Speed Rail: Lessons for Policy Makers from Experiences Abroad. March 2010) raised a number of questions about the environmental credentials of high speed rail, noting: *“There has yet to be a detailed, systematic evaluation of the impact of an expanding HST network on the reduction in CO2 emissions at either an aggregate or country level.”*

Contrary to many of the arguments, they highlighted research that suggested high speed rail could even be more energy intensive than petrol and diesel vehicles per MJ/seat mile:

“According to estimates conducted by van Essen et al (2003), energy consumed per MJ/seat mile by air transport is 240% higher than that attributable to HSTs. However, the energy consumed by HSTs is 12.8% higher than a petrol-driven car when travelling on the motorway, 55.9% higher than a diesel-driven car on the motorway, and 140.9% higher than an intercity train.”

They drew the conclusion that: *“HSR is not a very useful tool for fighting CO2 emissions.”*

7. Who Will HS2 Benefit?

Given the large amounts of taxpayers' money that will be required to make HS2 happen, it is not unreasonable to expect a rigorous analysis of exactly who is expected to benefit from the project. This rigorous analysis is sadly missing from the Department for Transport's proposals. However, a number of respected analysts have addressed this issue, and the results are disturbing.

Professor Robert Cochrane, in his written evidence to the Transport Select Committee, says:

“Since HS2 passengers receive the benefits of premium service without paying premium fares, there is also a distributional issue - who pays for the new transport infrastructure and (possibly) operating subsidies, and who obtains the benefits. For a new railway, there are three issues to be faced.

The first is that the public funds come in a large part from taxes paid by those living in areas far from the line and who will rarely use it.

“The second point applies in particular to high speed lines. The benefits are predominantly obtained by those living close to the few railway stations – few, since otherwise the benefits of high speed operation are lost by frequent stops. But those living between the stations may suffer dis-benefits from construction and noise.

“The third issue is that of the income distribution of long distance high speed rail passengers. There is a great deal of evidence provided by the Government's own ongoing National Transport Survey that long distance travel and long distance rail travel journeys in particular are predominantly made by higher income groups. The highest income quintile makes three times as many long distance trips as the lowest, and they make a higher percentage of these trips by rail.

“The combination of these three factors means that the benefits of high speed train services primarily accrue to a small sub – set of the population which has to pay for the infrastructure and possibly, an operating subsidy in the early years. These are predominantly higher income personal and business travellers with origins and destinations relatively close to the few railway stations.”

The Oxera report agrees that higher income groups are likely to benefit disproportionately: *“Other studies corroborate the assertion that high-speed rail tends to attract individuals from higher-income groups.”*

Chris Stokes agrees, and points out the regressive nature of HS2 as a result:

“Research shows that nearly half (47 per cent) of long distance rail journeys in Britain are made by people from households in the top income quintile. Expenditure on HS2 therefore represents regressive taxation, as the people likely to use it are typically much wealthier than the average for the whole population... This will be a railway for the rich, with no cheaper alternatives, but paid for by everyone.”

Given that the principle rationale behind the commitment of over £30 billion to HS2 is to reduce inequalities such as the north-south divide and regenerate some of the

poorer parts of the United Kingdom, this is a damning analysis. Coupled with the complete lack of any assessment of the opportunity cost with regard to potential economic regeneration programmes, it is clear that a fundamental rethink is required.

8. Wider Economic Benefits

A significant part of the benefits attributed to HS2 are the 'wider economic benefits', including regional regeneration and job creation. The impact of HS2 on the regions is discussed below, but the issue of jobs is one that needs to be looked at critically.

The consultation summary says: *"HS2 stations could act as a catalyst for major regeneration in London and the West Midlands. The proposed station at Old Oak Common in West London would contribute to the regeneration of the surrounding area and would support planned employment growth of up to 20,000 jobs. HS2 could also support growth in employment of more than 8,000 jobs in the West Midlands around the proposed Curzon Street terminus and the interchange station near to Birmingham International Airport; and it could support a further 2,000 jobs around Euston."*

Given some inconsistencies between the summary and the main consultation document, the HS2 Action Alliance clarified the position with HS2 Ltd and published the following figures (in their analysis: High Speed 2 - Review of the February 2011 - consultation business case for HS2. June 2011): *"So there are 22,000 new jobs in London compared to 8,300 new jobs outside London. This totals 30,300 new jobs. More than 7 out of 10 are therefore in London."*

Professor Mike Geddes, in his written evidence to the Transport Select Committee, made the following interesting observations:

"Of these the construction jobs are temporary, and the operational jobs are small in number. The regeneration-related employment is more significant, but 70% of these jobs will be in London."

However, as the government admits, many of these will not actually be new jobs, but relocations from elsewhere.

Lille is frequently cited by supporters of HS2 as showing the scale of job creation resulting from HSR, but in practice HSR has at best been only one element in a much bigger regeneration 'package'

To sum up this section:

- *Current claims about the causative role of HS2 in creating employment through regeneration are exaggerated.*
- *When subjected to critical appraisal, evidence from comparators such as Lille and HS1 also suggests that employment claims for HSR are inflated.*

Even on the most optimistic – and highly unlikely - scenario for supporters of HS2, any reduction in the jobs gap would fail by a large margin to stop the North-South divide widening at its current rate, let alone produce ‘transformational change’.

So one of the major planks of the pro-HS2 case, the boost in jobs and regeneration of the regions, is not as clear cut as the Department for Transport suggests. One of the problems we are facing is that the Department for Transport has consistently allowed claims for the regional economic regenerative potential for HS2 to largely stand as self-evident. It has not put forward the evidence to make a compelling case that such regeneration is likely.

In fact, what concerns me most – both as a regional Member of Parliament and as a national legislator – is the strong evidence that the opposite is in fact true. That HS2 could see economic activity drained away from the regions towards London.

9. Regional Impact

My greatest concern about HS2 is the potential distorting effect it is likely to have on our regional economies.

The Department for Transport continues to push the line that HS2 will regenerate the regions and the north, without putting forward a coherent economic argument to demonstrate this. It is effectively held to be self evident. However, an analysis of the available research demonstrates very clearly that high speed rail networks cannot be assumed to benefit all parts of a network equally.

The Institute of Economic Affairs has concluded in its economic analysis of the project that the Department for Transport has not made its case in this regard:

“Claims that HS2 will bridge the north-south divide and bring regeneration should be treated with scepticism as the evidence is largely speculative.”

The Oxera report produced for the Transport Select Committee concurs: *“There is relatively little evidence presented on the regional and socioeconomic impacts of the programme.”*

Professor John Tomaney, in his written evidence to the Transport Select Committee, makes the same point: *“...these predictions about the impact of HSR on regional inequalities are founded on assumptions that are difficult to sustain.”*

There is a growing consensus among those who have studied the impact of high speed rail systems around the world that, rather than push economic activity out from London and the south east and towards the north, HS2 could have the opposite effect – concentrating yet more economic power in the capital at the expense of the regions. In his written evidence to the Transport Select Committee, Professor Peter Mackie said:

“It is important, if the Government thinks there is a strategic case for building HS2 which is above and beyond the economic and environmental case, that there is

clarity on what that case is so it can be scrutinised. For various reasons, HS2 is rather unlikely to make much difference to the North-South divide. A spatial analysis would probably show London to be the main benefitting region.”

Daniel Albalade and Germà Bel from the University of Barcelona, in their analysis of the impact of existing high speed rail networks in Japan, France, Germany, Italy and Spain, came to the worrying conclusion that negative agglomeration effects can have a damaging effect on smaller cities and regions linked by a high speed rail line to larger, more economically powerful cities and regions:

“...for regions and cities whose economic conditions compare unfavorably with those of their neighbors, a connection to the HST line may even result in economic activities being drained away and an overall negative impact (Givoni, 2006; Van den Berg and Pol 1998; Thompson 1995). Medium size cities may well be the ones to suffer most from the economic attraction of the more dynamic, bigger cities.”

They also concluded that parts of the country caught between two ends of a high speed rail line can suffer:

“...while a HST line improves accessibility between the cities connected by the service, it disarticulates the space between these cities - what has been referred to as the tunnel effect (Gutiérrez Puebla, 2005). Hence, HST lines do not seem to increase inter-territorial cohesion, but rather they promote territorial polarization.”

They also noted rather ominously:

“The fixed costs of HSR investment are huge, and cost overruns notoriously high.”

In their conclusion they reiterate the key point that must be taken on board by the Department for Transport, and a point that has so far not been addressed:

“Finally, the economic impacts of HSR are somewhat limited. The largest cities in the network might receive limited gains, but this is not the case for intermediate cities, which might see economic activities being drained away and suffer an overall negative impact.”

Professor John Tomaney raises some similar concerns. He also raises questions over some of the conclusions drawn by the Department for Transport in their own analysis of the impact of high speed rail on the continent.:

“Puga provides evidence of this shift in US and of the emergence of this trend in France, where the construction of the Lyon-Paris TGV led to the relocation of headquarters activities from Lyon to Paris in contradiction to the claims made in the DfT consultation document (DfT 2011; see section 2 above). DfT claims that the development of a new office complex adjacent to the Part-Dieu station in Lyon points to the positive effects of HSR, but this statement does not address the net impacts on growth and employment. The balance of evidence assessed here and below in section 3.2 points to a negative net impacts for Lyon.”

He went on to note:

“...there is no evidence that HSR led to overall economic decentralisation from Paris (Marti Hennenberg 2000 cited in Albalade and Bell 2010).”

In his evidence, Professor Tomaney casts further doubt, not only on the Department for Transport’s analysis, but that of KPMG:

“Additionally, the prediction that HSR will generate growth in peripheral cities (supported by data from KPMG 2010) is mostly based on assumptions which are difficult to sustain after close scrutiny.”

Finally, he concluded:

“Taking this evidence in the round it is very difficult to substantiate the argument that high speed rail is likely to have a positive impact on regional inequalities.”

Regional regeneration and tackling the north-south divide are given as key drivers behind the entire project. Given the mounting evidence that HS2 is not only unlikely to achieve this, but could in fact have the opposite effect, it is vital that we stop and rethink the entire project. There simply isn’t the evidence to support many of the assertions made by the Department for Transport about the transformative impact HS2 will have on the UK.

10. Compensation and Blight

I do not consider the arrangements discussed in Annex A: Blight and Compensation to be adequate, although I broadly welcome the principles outlined in the annex that those whose properties suffer significant loss in value should be compensated, people should be reassured that fair compensation will be paid, and a functioning property market must continue to exist.

As a constituency MP I am dealing with many families who are already devastated by the impact on their lives and their homes by the announcement of the preferred HS2 route.

The route through my constituency of North Warwickshire runs through the villages of Gilson and Water Orton, demolishing houses, cutting the rugby club in half, and passing extremely close to Water Orton Primary School. It runs very close to the town of Coleshill and the village of Middleton, and destroys businesses and family farms in between.

If the Y Route branches where we expect it to, and runs up the M42 corridor, that too will be in my constituency – making us probably the worst blighted in the country.

I have families telling me that they are praying for their homes to be compulsorily purchased, because the alternative is unthinkable. A high speed rail line literally at the bottom of the garden.

In order to fully understand the impact on my constituency, it is important to put this issue into the context of the recent history of the area. In recent years, these villages have had to put up with the construction of the M42 and the M6 Toll Road. In both cases, compensation was viewed as being arbitrary, with some streets seeing one neighbor compensated while another was not. It was viewed as being a long slog and a fight. This area has born its fair share of national transport infrastructure projects. That is the context in which local people view HS2.

I consider the compensation scheme that is put into place to be every bit as important as the details of the route. It is essential that any compensation be fair and generous.

The operation of the Exceptional Hardship Scheme has raised fears, rather than reassured people. The scheme is widely seen as being opaque and unfair, with the panel looking for reasons to turn applicants down rather seeking to help people. Having been through a number of applications with constituents, I share their concerns. The scheme is not working well.

As a result, any new compensation scheme will have to work hard to gain the confidence of my constituents. I do not believe that many of the measures outlined in Annex A are suitable:

- a. It would be wrong to expect people to receive no compensation until the line has been open for a year. The construction of the line will cause many of the physical factors outlined in the annex, such as: noise, dust and vibration, smell, fumes, smoke, artificial lighting, and the discharge of substances onto land. This should be recognised in compensation earlier than 2027.
- b. Any hardship based scheme will have to be considerable more flexible and transparent than the current EHS, which is not working well and in which I and my constituents have no confidence.
- c. The agreed 'pre-blight' value of the property must be fairly and independently assessed. The current EHS scheme appears to be taking a date of January 2011 in some instances as a 'pre-blight' date, which is unfair as this date is after the proposed route was announced.
- d. All of the schemes outlined, including the bond schemes, make no allowance for stress, loss of wider amenities, the impact of the construction and ultimately the noise and blight of the line on peoples' lives. While adequate compensation for the loss of property value is essential, is it enough? This is a rural area that many people have made life changes and sacrifices in order to move to the 'countryside'. To lose that, without compensation, is a bitter pill to swallow.
- e. There is no suggestion in the annex that the Department for Transport is considering offering a premium over the pre-blight value of a property in compensation. Some people are seeing their homes demolished and are being forced to move. Others are seeing their communities changed and their

neighbourhoods badly affected. The compensation should reflect this, as it does in some other countries such as France, with a premium paid. If HS2 is genuinely a huge benefit to the country, surely it is not too much to ask that the country recognise the sacrifice being made to those whose homes are affected?

11. Summary

The business case rests on a series of best case assumptions, any one of which could have a potentially large impact on the BCR. We have seen this clearly demonstrated in the 40% reduction in the BCR between the March 2010 business case and the February 2011 business case.

The aggregated risk of one or more of these assumptions turning out to be optimistic is high.

There are too many independent groups and organisations raising serious concerns about too many of the assumptions on which the business case is built for the Government to just press ahead with a >£30 billion infrastructure project.

The Department of Transport must stop, and must consider the many concerns that have been raised, but not answered. There is too much at stake to do anything else.

12. Bibliography

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