



HIGH SPEED RAIL
INDUSTRY LEADERS GROUP

Great Britain: connected or not?





Outline

Those looking to form their own view on HS2 – the planned North-South high-speed railway line – can read any number of worries and assertions across the media.

But as Parliament comes to consider the first phase of the project, it is important not to lose sight of what HS2 will mean for millions of people up and down the country: from new long-term jobs, to the development of cutting-edge skills; from closer socio-economic connections between our biggest cities to a renewed, more resilient, transport network.

Equally we could consider what a future would be like without HS2. What would happen to our transport network, our international economic competitiveness, our cities and what it would mean for ordinary people?

This report looks at a reality of Britain without HS2.

First we consider what would happen to the money that would be used to build HS2, its capital budget, if the project were to be cancelled. This serves to frame the rest of our report. Where would the money go, how would spending be rebalanced and crucially, how much funding would go to other transport improvements – in particular on our rail network?

Next we consider the consequences of cancellation for the national transport system, for our railways and the national road network in particular. How would the network – and its passengers – cope without the resilience and relief HS2 offers to some of its busiest corridors? The capacity crunch facing the West Coast Main Line is real: how would vital work on this line and on other parts of today's network be affected?

Finally we look to the economy and what cancellation would mean for inward investment to the UK, for key industries and businesses, and for the cities and their regional catchments that HS2 is intended to serve. Would investor confidence in the UK take a knock? What would it mean in particular for the North of England? Equally what would we lose in terms of regeneration, employment and skills?

HS2 is not, and cannot in fairness be represented to be, about shaving a few minutes off the journey time from London to Birmingham. But it is about capacity and our ability to deal with the expected addition of 10 million to our population over the next twenty years. It is about bringing 8 of our 10 largest cities and their people closer together, making Britain a more appealing place to live and do business as we continue to compete in a global race for jobs and growth.

As we have seen with the Olympics – and are seeing with Crossrail – big projects help businesses and workers develop new technologies and skills they can then go and sell to the world, securing jobs long-term, driving growth and building better, stronger communities.

We stand fully behind HS2. Everyone should do the same so we can press on and build one of the most exciting, ambitious and important projects in this country since Victorian times.



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1 Introduction

There has been very strong parliamentary and judicial support for HS2. In the most recent test of parliamentary support in November 2013, the Paving Bill was passed by 350 votes to 34. In January 2014, the Supreme Court rejected an outstanding Judicial Review by 7 votes to nil, refused to grant a right of appeal to the European Court and awarded costs to Government.

But there is always a risk – however small – that the path to implementation of HS2 could falter at some stage. We consider it important to contemplate this possibility, to help understand what would be lost.

In this report, we examine what would be the most likely practical consequences of HS2 being abandoned.

This is *not* an appraisal question, which is the domain of economic analysis, in which alternatives are compared to the investment in question (before either the project or the possible alternatives to it are judged in advance of proceeding). Rather, it is a matter of using evidence and experience to judge the most likely outcome.

The answer to the appraisal question is already known, through the series of government reports that have examined the alternatives to HS2. This work shows that while some other approaches also have a good business case, the challenges HS2 is designed to address would only be partially met. Soon enough, the same question of a step-change in capacity and capability would have to be faced.

With a hybrid Bill for Phase 1 of HS2 already in Parliament, it is now right to ask the question posed here, which is:

“what is the most likely consequence of dropping HS2 at this stage?”

We need to consider this to see what is at stake. This report draws on the expertise of the Industry Leaders Group and its understanding of the realities of government spending decisions, the feasibility of large-scale upgrade work and other questions of an essentially practical question that will dictate the ‘most likely’ outcome.

It takes as an assumption – purely hypothetically – that HS2 is abandoned in 2014 or 2015 or soon thereafter. Not deferred, not modified, but outright abandoned. No specific consideration has been given as to why or how this might happen, but simply assumed it does, and explored the consequences.

There are precedents, of course, for loss of nerve, or a change in view on policy priorities. While each circumstance is different, we highlight three of the more relevant examples in the panel below, and there is a pattern. In some cases, abandoning a decision to proceed might mean the project never happening at all – and nothing being done in its place either. In other cases, the problem remains and returns for a more confident generation to tackle – by which time costs are higher, obstacles to implementation are higher, and the problem, wished away many years earlier, remains to be addressed by a future generation.



London's Crossrail

Submitted for Parliamentary approval in 1993, this was rejected in 1994, with H M Treasury said to be opposed to the budgetary impacts. It returned and in 2008 gained the support of the Government of the day and now, in 2014 – twenty years after its rejection – it has reached the half-way point in its construction programme. It is due to open in 2019, 25 years after the first bill was rejected.

The East Coast Motorway

Promoted by a private consortium in the 1980s and proposed for operation with a toll to avoid the need for tax-payer funding, this scheme would have extended the M11 north of Cambridge to connect with the Humber Bridge. The Government of the day was flatly opposed and the only privately funded motorway built in Britain came in the next decade, the M6 Toll – a much shorter scheme in a totally different geography. The east side of England has had to make do with the A1 and A15 ever since.

The Third London Airport

No new runway has been built in South East England despite a major report (the Roskill Commission in the early 1970s), so now 40 years later the same question is being asked again – including similar options such as a new airport in the Thames Estuary.

The national railway sector has its own version of this type of planning failure. The Advanced Passenger Train (APT) of the 1970s sought to achieve the journey time gains through using new technology including tilting to achieve higher cornering speeds. Abandoned in 1982, the year that TGV services started in France using a newly built high-speed railway, government lost faith in BR's judgement. Investment in the West Coast Main Line (where APT was due to run) was blighted for 20 years, storing up a substantial backlog of renewals. Subsequently, a proven version of the tilting train – the Pendolino – was successfully introduced, and the much delayed renewal programme was implemented, largely over the period 2000-2008.

In short, what precedents tell us is that a range of outcomes are possible when projects are abandoned, including:

- The same investment is made but many years later – at higher cost
- No alternatives are put in place
- The country falls behind developments taking place as a matter of routine elsewhere

In assessing the situation with HS2, we have followed a structured approach.

The first question to be considered is about funding and what would happen to the HS2 capital budget. Next we consider the consequences for the national transport system – for our railways and for the national road network, in particular. Then we look at the wider economic consequences, for inward investment in the UK, for industry and business, and for the cities and their regional catchments that HS2 is intended to serve.

This report was prepared by the businesses that make up the HSR Industry leaders Group. These businesses have huge experience of project delivery in Britain and around the world – in rail and other fields such as the energy sector, and major highways programmes. They were able to draw upon their collective experience and insights in forming the considered view presented here.

2 The consequences for funding

As of summer 2013, HS2 Ltd had spent £260m on design, property compensation and work in preparation for the hybrid Bill process. The expenditure rate is due to increase sharply, up to £832m for the year 2015/6, continuing to rise to £4bn by 2019-20. Depending when abandonment happened, the abortive costs might be assumed to be somewhere in the range £0.5bn - £5bn. These costs could not be recouped.

Overall, HM Treasury has allocated £42.6bn for the construction of HS2 (in 2011 prices, including contingencies) and a further £7.5bn is nominated for capital investment in rolling stock – although no decision has been taken on whether or not rolling stock would be funded by the private sector in practice (as is the norm in Britain) or by Government itself directly. So, keeping it simple, the question is what would happen to the £42.6bn – or to allow for some sunk cost – roundly £40bn that might be 'unspent' if HS2 were to be abandoned?

As noted above, precedents suggest that the investment may in practice come to be spent many years hence – say in 20 years' time – on effectively the same project. By then, of course, its implementation cost will have inflated significantly. To keep the analysis simple, however, we have ignored the possibility that the project might return at a later date.

The use or re-deployment of the £40bn capital would be a matter for the Chancellor of Exchequer – or for Government as a whole, not the Department for Transport. There has been no allocation of £42.6bn to the Department of Transport for it to select its own spending priorities, only a provision for £4.5bn spend on HS2 to cover the period through to 2019. Even this allocation would not be left to DfT's discretion to re-deploy if HS2 was abandoned.

In the current circumstances, when national debt is of course a matter of major concern, one option open to Chancellors faced with an unexpected choice such as is being considering here, could be the use of the £40bn as a windfall to reduce government debt. Alternatively, and consistent with a more balanced view, a Chancellor might seek to re-deploy the capital spend, in recognition that without well targetted infrastructure investment, the economy may perform less well in future.

It is generally recognised, for example, that congestion on the national transport system imposes substantial and ongoing costs on British businesses and damages competitiveness.

Interestingly in the case of HS2, there are few other government-funded programmes of equivalent scale or other candidate investments in the 'pending tray'. This means too that there are no other transport schemes under consideration with the same scale of economic benefit. And transport is the department with the largest capital programme in 2015-16. In round terms, it represents 20% of government's overall capital spending programme.

The choice for Government is to re-deploy the capital spend elsewhere, or to take it as a saving against budget and to use it to further reduce overall debt. We saw no likelihood of a wish to switch funding from capital projects to the revenue account. Revenue spending (current account) is being reduced (down £11.5bn in the year 2015-16) while capital spending is increasing, albeit by a lesser amount (+£3bn in 2015-16).

So the choice is between re-deployed capital spend and writing down national debt. Both are seen as important to support economic recovery and growth.

On balance, our expert view is that a large part of the £40bn budget would not be reallocated to other capital programmes, but used to write down Government debt. This is because the debt write-down is a continuing priority and because there are few capital projects available to Government that can generate the scale and distribution of benefits that HS2 is forecast to provide.

We have examined a range of values for the write-down/re-allocated split on a probabilistic basis, with a most likely estimate of a 75:25 split.

This breakdown means that there would be £10bn to re-allocate for capital spending. A reasonable assumption would be that DfT would obtain a proportion of this amount consistent with its current share of capital spending (20%), with the remainder going to capital spend in other government departments. Of the £2bn made available to DfT, it is reasonable to assume that it would be divided – as the current capital programme is shared, broadly 1/3 on the national highway network, 1/3 on local and London transport and 1/3 on the national railways.

This means that there would be just £0.67bn to be added to the national rail spend over the period of close to 20 years of expected expenditure on HS2. Some £8bn would be re-allocated to other kinds of capital programme, including £1.3bn elsewhere in the transport field.

These sums may be contrasted with the £2.5bn suggested as being needed to fund a further upgrade in the West Coast corridor, put up as an alternative to Phase 1 of HS2 (but of course delivering far fewer benefits).

While it might be suggested that this could be funded by Network Rail rather than Government/ DfT (to be recouped through future track fees chargeable to rail service franchises), in practice such additional expenditure by Network Rail would now also score against the Government balance sheet, following the decision to re-classify Network Rail from September 2014.

The additional allocation to the highways budget is modest too. It is substantially less than the cost of the A14 scheme in Cambridgeshire, for example.

In short, this scenario doesn't imply any substantial release of funds to try to address the capacity and other challenges that HS2 is designed to address. And the Department for Transport might be less well-regarded as a suitable custodian of scarce public sector funding if HS2 is cancelled because of the perceived failure to manage its flagship project on behalf of the coalition government.

The outcome described above is judged the most likely, but clearly others are possible too. Our examination of other possible spending scenarios is shown in the diagram above.

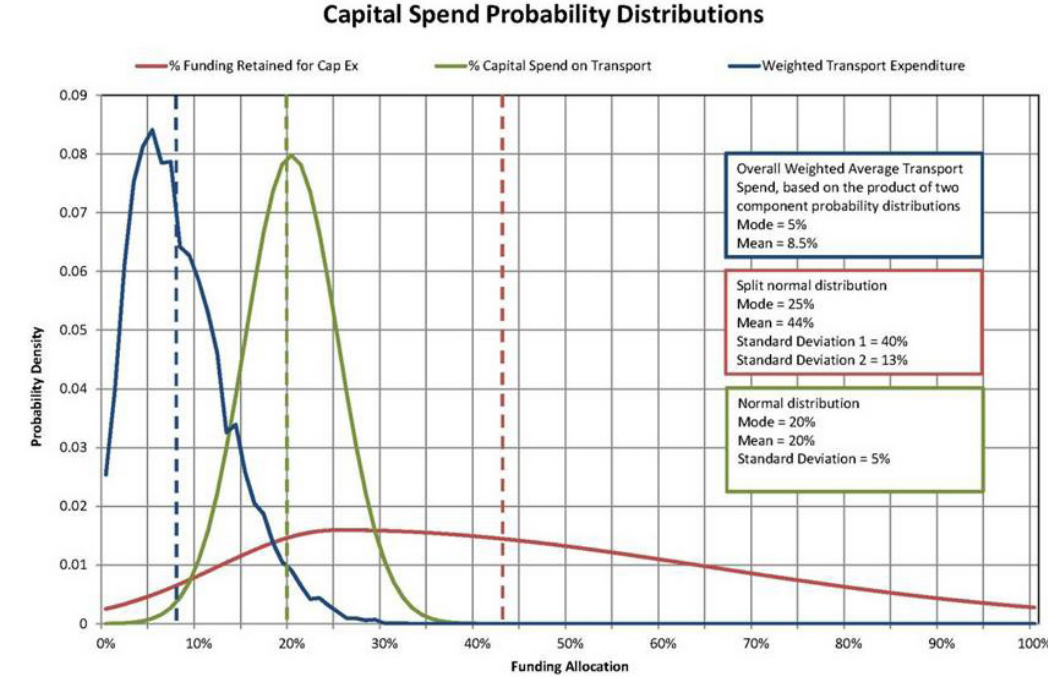


Diagram showing probability weighted outcome of additional 20-year rail capital spend here, with a central value of 75 debt write down and 25 capital programme reallocation

The two main uncertainties surrounding the proportion of HS2 budget that may be retained for *transport* spending are:

1. the split between re-deployed capital and write-down of national debt
2. the proportion of Government capital expenditure that will be allocated to transport spending. This has been considered in a stochastic model with probability distribution functions ascribed to each uncertainty (as shown in the diagram above).

Uncertainty surrounding the split between re-deployed capital and write-down of national debt has been shown by the red line, while the green line illustrates uncertainty surrounding the proportion of Government capital expenditure that will be allocated to transport spending in the future. The blue line in the diagram illustrates the weighted probability, or product, of the two component assumptions. It can be seen that the most likely outcome is that 5% of the HS2 budget would be retained for transport capital spending. (8.5% if expressed as a weighted probability).

A future chancellor might elect to allocate less than 75% of the £40bn to debt write-off. At 50% debt write-off, for example, there would be £1.3bn additional funds available to spend on the

national rail network. If there was no debt write-down at all, and assuming current proportions of departmental and sub-departmental spend continue to apply, the amount made available to the rail capital account would still only amount to around £130m *per annum*.

In practice, expenditure between transport modes could be re-balanced away from rail and towards roads, although the sums involved are insufficient to embark on major additional roads expenditure.

The most likely outcome, as we have judged it, would result in less capital spend overall and some writing down of national debt in the 2020s. But on the question of national debt, there are further factors to consider. Overall, the impact of HS2 is that the cost to the Exchequer of having a national rail network is reduced. So with its abandonment, the opposite is true.

And then there is the prospect of the Exchequer cashing in on its outlay, just as has happened with HS1. With HS1, a project that cost £5.6bn, the decision was taken, once construction was complete and the operation bedded down, to sell it, in effect, through a long-term (30-year) concession. This raised £2.1bn in a disposal that was contested in the market-place and won by a consortium of Canadian Pension Funds. Remuneration comes in the form of track fees for



which the UK has a proven stable independent regulatory regime that provides assurance to long-term investors. If the equivalent process were to be followed with similar proportional values for HS2, we could see cash returns to the Exchequer of £8bn in 2027 and a further £8bn in say 2035 (both sums expressed in 2011 prices). Without HS2 the opportunity to earn these returns is foregone.

An important related point is that most alternative uses of government investment funds do not create assets with intrinsic commercial value. There is no equivalent concept for highways expenditure for instance (unless an estuary crossing is involved), because of a continuing reluctance to embrace the idea of tolling motorways – a concept most recently tested with the A14 scheme, and abandoned. So spending on HS2 can earn a cash return for government while most alternative uses of the budget do not. Abandoning HS2 would remove the opportunity for major cash returns in future decades.

And all of this assumes that there is no wider impact on the economy from HS2 – yet clearly there *will* be a beneficial effect from enhanced business productivity, with shorter and more predictable business connections. The capacity released on congested main lines into London, Birmingham, Manchester and Leeds main lines *would* increase otherwise constrained commuter capacity and broaden labour markets. We can't usefully add to the debate around attempts to quantify such effects, but we must point out that a more productive and more competitive UK will lead to greater tax revenues, as more people find jobs, and those in employment find their efforts attract higher rewards. In short, the UK's well-being and its reputation as a place to invest is due to be enhanced by HS2, and this would be put in jeopardy if abandoned.

3 Impacts on the National Transport System

The national transport networks face various pressures – renewals backlogs, the need to add resilience – including against more frequent extreme weather – as well as ambitions to reduce accidents, mitigate noise and air quality impacts, improve journey time reliability and to increase capacity and reduce congestion.

The additional funds likely to be available to help address these challenges if HS2 were to be abandoned would make little difference. DfT has a spending programme of £73bn over the next 6 years, and is unlikely to see even £0.2bn per annum additional funding if HS2 is cancelled. Indeed, the proportion of funds allocated to rail might be reduced. Yet the trend increase in demand for travel by rail is expected to continue.

One of the benefits of high-speed rail is the proven ability it has to attract people away from short-haul aviation. HS2 would be most effective in reducing the demand for flights from Edinburgh and Glasgow to London (and also from Manchester). It can be connected directly into Heathrow Airport to provide a replacement facility even for those with onward flight connections. This is a capability that is enjoyed in Holland, France and Germany. It would strengthen our national airlines if the same capability is offered in Britain and conversely, without HS2, it would weaken their overall competitive position in long-haul travel markets.

Rail Investment

Network Rail would not be able to look towards the relief that HS2 would bring to its busiest main line corridor (the West Coast Main Line) in the mid 2020s – or to the relief of the East Coast Main Line in the early 2030s. It would surely, however, seek to re-allocate additional expenditure to these, its busiest routes for freight and intercity passenger traffic, that also happen to serve a fast growing population in the outer London commuter belt.

Insofar as it did so, with a spending pot unlikely to have been significantly augmented, Network Rail would need to cut back on spending elsewhere. The remoter less well-used parts of the network are likely to see investment programmes cut back and deferred. Some of the projects being actively considered for the next five years investment period when HS2 construction would have been underway would be dropped.

The replacement investment in the corridors that HS2 would have relieved would be most likely spent on platform extensions, junction improvements and depot extensions to try to squeeze more capacity out of the existing system. Passenger numbers would still rise, although by less in the longer term as congestion levels grow and overcrowded conditions become commonplace in peak periods. Stations like Euston would still need to be rebuilt – simply to accommodate growth in demand.

In the West Coast corridor, investment would quite likely be allocated to parallel routes since there is little that can be done further to the West Coast infrastructure, especially at its critical southern end, between Birmingham, Rugby and London. Schemes such as four-tracking of the route between Coventry and Birmingham – a bottleneck bypassed by HS2 – would, if carried out, be disruptive – both to local adjacent property owners and to railway customers. Schemes such as these are time consuming and expensive to implement – and they will largely only be feasible if other schemes on less busy routes are deferred as noted: in practice this means in the North of England, in Wales, the South West and East Anglia.





Other investments that have been argued as being to some degree dependent on HS2 will be deferred – or abandoned. This would include London's Crossrail 2, for which there is strong public support, since some of the extra demand that HS2 would bring will not materialise. Other complementary urban projects in Birmingham, Nottingham, Sheffield and Manchester, for example, will have weakened business cases.

Rail Services

Trying to fit in longer trains and a few extra trains onto an already crowded network is likely to mean a worsening in performance reliability. Faced with overcrowding, the temptation will be to use any remaining 'breather slots' in the timetable for extra services.

With just 36% extra capacity achievable on the West Coast Main Line by all of the available measures, including further train lengthening, services which are already overcrowded at peak times (Monday – Friday morning and evening rush hours for commutes and weekend peaks for longer distance travellers) will become more crowded still. The most popular trains are already operated with trains extended to their maximum practical length. Extensions of remaining 8-car trains to 12, for example, only remains possible for the less well-used trains within the peak three hour periods. Station dwell times, with packed trains, will be extended: train services will get slower, as is already happening on overcrowded lines into London.

Scenario - what happens to renewals needs and to maintenance regimes as the network gets busier and busier?

In railway terms, we have the oldest system in the world and one of the busiest networks in Europe, with 20% more train services than France, 60% more than Italy and more than Spain, Switzerland, the Netherlands, Portugal and Norway combined. We maintain around 30,000 bridges, 2,500 stations and over 20,000 miles of track. The effective management of these assets requires a robust understanding of their behaviour and the most appropriate actions to mitigate asset degradation or failure.

Performance on the West Coast Main Line is currently below its target level, partly due to the pressure arising from the increased volume of services using the route. A substantial increase in service quantum that would be required to meet forecast demand should HS2 not be implemented would be almost impossible to accommodate. Critical parts of the network already run at close to 100% capacity. As more and more people have chosen to travel by rail, trains have become more crowded and we have built longer platforms to accommodate longer trains. Once these longer trains are full we have squeezed more trains onto an already crowded network – we carry one million more trains now than ten years ago. There will come a point when there is simply no space to run more trains and we are rapidly approaching that point on the busiest parts of the network.

The technical and operational reliability of the route would have to be strengthened to offset the greater intensity of asset use and likely increase in disruption that would occur owing to the increased number of services operating on the railway. With an increased number of trains operating on the network, the reliability of traction and rolling stock would have to improve markedly to offset the increased mileage achieved and resultant increase in number of failures due to the higher density operating pattern.

With regards to maintenance, the conventional operation of more train services would result in an increased level of wear to track and OLE infrastructure. As a result, additional maintenance provisions would be required beyond those currently in place, but the increase in services would reduce the access available to maintain the network, making a proof of maintainability an even more challenging proposition.

The consequences of the resulting travel conditions will mean people will look where possible to find alternative ways to travel – or indeed not travel in peak periods. Some may switch to using their cars – adding to road congestion and worsening air quality. Others may switch to other parallel rail lines where these are available.

Rationing by congestion is inefficient and damaging to the economy. In a practical sense and at a personal level, it may mean that the best person may not get the job, or not bother to

attend the job interview, because travelling from their chosen home location – which is so often fixed for significant family and other reasons – just gets too difficult, unreliable and stressful.

In so far as permitted, there will be a further policy temptation to allow increased fares at peak times to try to help 'manage demand'.

The additional services that have been sought – to provide places like Huddersfield, Blackpool, Shrewsbury, Harrogate and Bradford with regular fast intercity services to London – will not be possible. Without HS2, the space is simply not available on the network for developments such as these.

Neither is it likely that it will be possible to accommodate any significant growth in rail freight traffic. This might affect the expected flows of container traffic from the new London Gateway port for example. The implication is many more container lorries operating over long distances on the M25/M1/M6/M74 corridor. This will not help the Highways Agency in its attempts to ensure that areas around our motorways remain within legally enforceable air quality standards.

Overall journey times are likely to be extended, with more trains on the network, so the ambitions of those operators that would like to speed up journeys between both Glasgow and Edinburgh and London would be likely frustrated. Short-haul airlines will no doubt pick up the demand on offer, but this is not a good outcome in terms of carbon



emissions, and customer choice will not be extended as it could have been.

In terms of weather reliance – the HS2 project is to be designed and constructed to be able to withstand extreme weather conditions, and remain operational during a one in 1,000 year flood event.

In summary, what can be expected for the national rail network if HS2 is abandoned is:

- Some switch of investment to the main lines that HS2 would have relieved
- Cut backs elsewhere – especially on less busy sections of the network, especially lines in rural areas
- Much less extra capacity provided on routes serving areas of high growth such as Milton Keynes and Cambridge, mainly achieved through lengthening those trains that are not already operating at maximum length in the peaks
- Worsening standards of reliability (extending the recent downward trend of punctuality targets set for the busy East and West Coast Main Lines), as lines are used to absolutely maximum safe intensity
- Greater levels of overcrowding
- There will be pressure to increase fares in the peaks (to 'manage demand'), and the availability of deep discounted fares on longer distance services will be sharply reduced, with the big uplift in seating capacity from HS2 having been lost
- Ongoing periods of disruption as the greater levels of wear and tear on the network from more intensive use require more maintenance and renewals to be carried out. Even as technology improves and reduces the time to carry out such works, the costs will rise disproportionately because of the limited access opportunities.
- As well as freeing up additional capacity on the existing network for additional services, HS2 provides a real alternative route for passengers at the southern ends of both East Coast and West Coast main lines. This will help minimise disruption when major renewals work on those lines falls due.
- Increased disruption on the existing rail network during extreme weather conditions.

4 Impacts on the wider economy

Abandoning a major government commitment would harm national reputation. And it will make the UK less appealing to international investors.

Confidence in Britain being a country that can make things happen well – as was proven with the Olympics – and before that, with HS1 and St Pancras station – will be lost. What would then be the prospects for investment in projects to renew our energy infrastructure, for example, which face some of the same hurdles as HS2 faces – an arduous and consultative planning process that can be made subject to delay through judicial review procedures coupled with uncertainty in the resolve and consistency of successive Governments ('political risk')?

The UK has great strengths in its London economy, but the contrast with the regions outside the south east continues to grow. London's economy rests on many factors, but one of the most essential is its labour market. Quite simply, London has a labour market catchment that is larger than any other European city. To continue London's expansion, the commuter networks need to be expanded, and disproportionately so if people are to find more affordable housing. HS2 takes the pressure off the three main railway lines to the north of London, allowing this expansion of the labour market.

If the rail network cannot grow, London will not be able to expand and housing choices will be restricted.

Expanding the population of the south east where there is greatest market demand is challenging enough, but the scale of the ONS projections, with a further 10m people by the time HS2 is completed, suggest a more balanced approach to development would be more sensible, and more acceptable. The regions and devolved nations have an appetite for housing development and regeneration that is lacking in the established wider London commuter belt.

The challenge of re-balancing the economy, regionally as well as across business sectors, has been recognised by Government and it sees HS2 as a key means of achieving this. The way this would work is through the transformation in development values in the city regions that HS2 serves. Right now, the development market in the Midlands and North is sluggish. Experience elsewhere – from France with the TGV network, and in London with Crossrail – suggests that HS2 will change investor appetites, once its progress to implementation is assured, and that as soon as it is recognised as an absolute commitment, private sector investment will start – that is, well before the commencement of services.

If an office is within an hour of comfortable travel to the centre of London, and without the high rents of London, it becomes an obvious attraction. The nation can't turn its back on London; it needs to be well connected to it, as the recent Centre for Cities report has shown. London's success is a good thing for the national economy, but doesn't come without support from the rest of the UK. We surely need to take steps to ensure London continues to grow whilst helping cities like Birmingham and Manchester make a larger contribution to the national economy

Some effort has been made to 'measure' the changes that HS2 would bring in terms of greater productivity to specific places. The methodologies used are acknowledged to be in their early stages of development. Even if the scale of the impact on the national economy remains a matter of debate, one important conclusion of the work carried out by KPMG and others should not be over-looked. The value of the accessibility changes that HS2 would bring is greater in the North and the Midlands than in London and the South East. There are two reasons why this is the case: the impact of HS2 is proportionately greater for cities such as Leeds and Manchester than it is for London; and the cost advantages (lower rents and staff costs) in the cities of the North and Midlands become effective and appealing if they are provided the connectivity gains HS2 offers.



The question of the effect of HS2 on regional development and whether and to what extent it will change where businesses and households choose to locate will continue. What can be said now is that:

- The country faces a period of unprecedented population growth
- Much better connectivity between the South, the Midlands and the North creates new opportunities and choices for how that development is distributed in practice
- Those choices can be typified as offering a lower cost base and so to the extent they are taken up, efficiency and productivity will rise
- A balanced and complementary system of cities would allow labour and capital to flow more efficiently, helping investors, businesses and households to manage risks and make the most of opportunities. Rather than shrinking or constraining London's growth, there is a need to enable other cities to grow alongside the capital.

And conversely, of course, without HS2, these choices will not arise. The regional economies will not benefit and the labour market connectivity gains will not be able to alleviate the pressure on London and the south east.

Other specific sectors of the economy will struggle. The aim of spreading tourist visits beyond the capital has long been a policy aim, and international tourists are increasingly familiar with using high-speed rail as a means of visiting dispersed attractions. No HS2 means that regional attractions will struggle to get their share of visitors, who will face using congested transport systems (road, rail and airports).

HS2 serves the major cities of Scotland, the North and the Midlands. These are places where development and regeneration is of great value because strong regional centres can create a better balance to the national economy. Currently our regional cities under-perform against their competitors in Western Europe in terms of GDP and GVA measures. There may be several reasons for this, but a clear difference is the absence of high quality connectivity between them – a facility that exists across Italy, France, Spain, Germany, Belgium, the Netherlands and Switzerland. Abandoning HS2 will mean

abandoning the only measure in play to address this under-performance.

It is also the case that HS2 will create the capacity to improve rail services to many other places which, while smaller, are prospering and are recognised as being locations that could help trigger private sector-led growth and economic recovery. For them, abandoning HS2 means that measures to increase rail capacity will be much more expensive – and less likely to happen. As they expand, road congestion, if not a problem already, will become a deterrent, and another cost burden for business.

HSR and the wider rail network it supports create accessibility gains for urban areas; highway investment tends to have the opposite effect: it adds value most readily to development sites at the edges of existing urban areas, at key intersections and in areas that are not yet built upon. Abandoning HS2 and the strengthened national rail network that comes with it would mean less growth in towns and cities and more encroachment into greenfield and rural areas. It would be a path to a less sustainable pattern of development as the country seeks to accommodate another 10m people.

The many places that benefit from capacity released by HS2 include:

Shrewsbury, Milton Keynes, Northampton, Wolverhampton, Blackpool, Wakefield, Bradford, Doncaster, Peterborough, Cambridge, Watford, Nuneaton, Lichfield, Tamworth, Huddersfield, Llandudno, Bangor, Kenilworth, Hemel Hempstead, Telford, Grantham, Stevenage, Stafford.

Right now, rail is an important and growing sector of employment, with for example, a major new plant created for Hitachi in North East England. It is possible to detect a parallel with the regeneration of the automotive sector in earlier decades. HS2 not only creates a market for equipment, systems and rolling stock for the new line, by freeing up capacity on the existing network it creates the capacity that means further new train orders. Abandonment of HS2 would see these prospects wither, and the loss

of 22,000 full time jobs per year (across a 13 year period). Ongoing analysis by the National Skills Academy for Railway Engineering (NSARE) looking at defining skills shortages within the railway industry would cease as programmes supporting collaboration between the industry and educational establishments to encourage more students to take STEM subjects would no longer be relevant.

In summary, in the real world, the impacts on the wider economy of abandoning HS2 could be catastrophic:

- A loss of confidence in the UK, and in its ability to invest
- A stifled London, unable to expand its labour markets at affordable prices
- The loss of the best opportunity available to regenerate the cities of the Midlands and the North
- For many other places, a diminished prospect of better rail services
- With slower and less reliable rail services, and more congested roads, an inefficient and increasingly unpopular country in which to do

business

- A lost opportunity to spread the tourism appeal across Britain as a whole rather than just central London
- A lost opportunity to pursue a pattern of sustainable land use development as the country accommodates another 10m people over the next 20 years
- Independent analysis into the direct and supply-chain job impacts of the HS2 project predicted jobs in the design and engineering sectors, and the supply-chain that supports them, to grow to more than 22,000 within five years, with a projected 89,000 full-time jobs created across the 60 year life of the project. This represents an important stimulation of the engineering sector currently re-establishing itself across the UK – a process that has been stimulated already by the Olympics projects and by Crossrail – offering a significant boost to medium and long-term economic prospects. This too would be lost.





5 So what would Britain look like without HS2?

If HS2 is abandoned, some of the money will have to be spent on other infrastructure projects. Road and rail are already at overcapacity, the UK simply can't afford to keep going as it stands.

But our calculations clearly demonstrate that only a small fraction of the overall HS2 budget will be given back to the Department for Transport. In reality, the scale of improvement promised by less ambitious projects will be unable to provide the increase in capacity and economic benefit that is needed and can only be provided by HS2.

Short-term fixes such as lengthening of trains will not be able to keep pace with the long term increase in demand for rail. Congestion will worsen. There will be considerable pressure to increase fares, particularly at peak times, to manage demand and prevent over-crowding. The rest of our transport network will struggle when forced to take some of the strain.

But the consequences don't start and end with our transport network.

By abandoning HS2 the UK would be sending a signal to the rest of the world, that it is unable and unwilling to undertake significant, large-scale infrastructure renewal. Investors and employers will be put off by the creaking infrastructure and lack of ambition to upgrade what is at its heart a Victorian transport system.

Similarly, HS2 connects our cities in a way that our current network will never be able to. The project will help regenerate cities in the Midlands and North and tie together current regeneration projects across the country that will not reach their full potential if they are not better connected.

Walking away from HS2 also means walking away from a jobs boost that Britain can't ignore and the UK workforce wouldn't scorn. We're talking about as many as 89,000 direct jobs and 100,000 jobs supported in the supply chain.

Hundreds of British companies of all shapes and sizes – and their thousands of workers – will lose out on the opportunity to help build one of world's most technologically advanced railways, through the supply chain contracts on offer and the new generation of highly skilled engineers, designers, and architects it will generate. Abandoning the project would mean abandoning these jobs and inviting a brain drain of highly skilled engineers forced to leave the country for other opportunities.

Are the benefits of HS2 something the UK can afford to ignore?

It is the view of this group that HS2 is not something we can walk away from.

Abandoning the project now will mean we have to revisit the same problems and implement a similar solution at a later date and at a much higher cost. No-one can want to see this happen.

Join us in standing fully behind HS2 and supporting the building of one of the most exciting, ambitious and important projects in this country since Victorian times.

Who we are

The High Speed Rail Industry Leaders' Group is a coalition of industry experts committed to supporting the successful delivery of a world-class high speed rail network in Britain.

Our members have helped deliver major infrastructure projects in the UK and around the world, ranging from creating entirely new high speed networks through to maintaining and improving the UK's existing rail network. This gives us a unique insight into both the shortcomings in the current network, and the transformative capacity and connectivity benefits that high speed rail can bring.



The group's unique set of expertise in engineering, operations, funding and regulation gives them the experience to ensure the extension of the high speed rail network leaves a lasting legacy for the UK and as part of our role, we will:

- identify and offer solutions where High Speed Rail lacks skills or resources
- showcase the expertise Britain possesses and identify where there needs to be improvement and investment
- benchmark expertise against international experience
- provide leadership and guidance on issues such as environmental treatment, cost management and operational performance

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Railway Industry Association

SIEMENS

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