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Summary

- The decision to build High Speed 2 is not justified by an analysis
 of the costs and benefits of the scheme. Even the government's
 own figures suggest that HS2 represents poor value for money
 compared with alternative investments in transport infrastructure.
- Ministers appear to have disregarded the economic evidence and have chosen to proceed with the project for political reasons.
 An analysis of the incentives facing transport policymakers provides plausible explanations for their tendency to favour a low-return, high-risk project over high-return, low-risk alternatives.
- A group of powerful special interests appears to have had a
 disproportionate influence on the government's decision to build
 HS2. The high-speed-rail lobby includes engineering firms likely
 to receive contracts to build the infrastructure and trains for HS2,
 as well as senior officials of the local authorities and transport
 bureaucracies that expect to benefit from the new line.
- An effective lobbying campaign in favour of HS2 was initiated and funded by concentrated interests expecting to make economic gains from the project. This effort appears to have been effective at marshalling support for the scheme among policymakers.
- 'Vote buying' incentives were also important in building political support for a high-speed line. The policy was initially adopted partly as a response to local opposition to Heathrow expansion.

- The main losers from HS2 the taxpayers in every part of the UK who will be forced to fund it are highly dispersed, and therefore have weak incentives to actively oppose it. By contrast, members of communities along the route, where losses are concentrated, have had very strong incentives to campaign. This pattern of activity has enabled the debate to be misleadingly framed in the media in terms of local objections versus national economic benefits.
- Policymakers have strong incentives to 'buy off' opposition along the route at the expense of taxpayers, for example by increasing the amount of tunnelling or diverting the line. The large scale of HS2, its high political salience and its potential electoral importance, increase the risk that budgets will be expanded.
- Local authorities, transport bureaucracies and business groups are already lobbying central government to fund new infrastructure along the route, with several schemes already identified. HS2 will trigger billions of pounds of additional expenditure on commercially loss-making, taxpayer-funded projects.
- Along with design changes to 'buy off' opposition and subsidised regeneration projects, these proposals threaten to push total spending far beyond the basic budget. £80 billion plus is a plausible estimate of the overall cost, if these extras and the trains are included.
- In addition to the direct costs, there will be even larger opportunity costs from the misallocation of transport investment. Institutional reform is needed to reduce the malign influence of rent-seeking special interests on transport policy. New infrastructure could then be provided on a more economically rational basis.

Introduction

High Speed 2 should not be happening. Several studies have demonstrated that the project's business case is based on a series of flawed assumptions. And even the government's own estimates of the costs and benefits suggest the scheme is poor value for money compared with alternative investments in transport infrastructure. HS2 will be heavily loss-making in commercial terms – hence the requirement for massive taxpayer support.

An economically rational transport investment policy would direct resources to those projects with the highest rates of return. Such an approach would prioritise the removal of regulatory barriers to the construction of commercially viable schemes not requiring support from the taxpayer. But if the state were investing in new infrastructure, as a general rule the schemes boasting the highest benefit-cost ratios (BCRs) would be built first. Only after schemes with high BCRs had been implemented, and if there were still funds left in the transport budget, would officials move on to those with medium ratios. Projects with low ratios, such as High Speed 2 Phase One, would be at the bottom of the priority list. This would help ensure that the economic benefits of investment were maximised for a given budget.

For example, Stokes (2011); Aizlewood and Wellings (2011); Castles and Parish (2011); Hawkins (2011); NAO (2013).

In practice, it seems highly unlikely that schemes with low BCRs would ever get built under an economically rational policy. This is because a large number of potential schemes have high ratios and because funding for transport schemes is scarce. Moreover, the inevitable reliance on uncertain assumptions in cost-benefit analyses clearly means there is a relatively high risk of low-BCR projects producing negative returns, for example if traffic forecasts prove to have been over-optimistic or construction costs overrun. A substantial allowance should also be made for the negative economic impact on the wider economy of the taxation needed to fund government investment, which further weakens the case for implementing such schemes.²

This paper examines why policymakers have apparently defied economic logic by prioritising HS2. It contends that decisions on transport projects are heavily influenced by the incentives facing politicians, officials and other interest groups. The self-interested behaviour of key policy actors in the context of these incentives helps to explain why schemes with low or negative returns gain support.

The study begins by setting out the theoretical approach, based on public choice theory. Two previous big government projects are then briefly examined – High Speed 1 and the Jubilee Line Extension. It is concluded that there are striking parallels between the development of these schemes and HS2, particularly in the way that the incentives facing policymakers added to the burden on taxpayers.

The main part of the study focuses on HS2 and the economic incentives that contributed to the adoption and evolution of the project. A high-speed-rail lobby of interconnected commercial and bureaucratic interests is identified as instrumental in developing support for the line. The long-term cost implications of the project's political economy are also considered. The conclusion recommends policy changes that would remove the role of special interests in infrastructure investment decisions.

² The literature on the economic impact of taxation is reviewed by Minford and Wang (2011).

Policy, incentives and interest groups

The state is virtually all-pervasive in the British economy. Public spending makes up nearly half of GDP and much 'private sector' activity is either directed or tightly circumscribed by government. In a market economy, businesses attempt to create profits by finding new and better ways of serving consumers. For example, in the early 19th century many early railways were built by entrepreneurs seeking to profit from their ability to cut dramatically the cost of transporting coal. In the 21st century, however, the opportunities for such entrepreneurial activity are severely limited due to high levels of political and bureaucratic control.

Profits now depend to a large extent on the ability of firms to obtain special privileges from policymakers, rather than their success at satisfying consumers. Businesses may therefore make the rational choice to invest in 'rent-seeking' activity - i.e. in lobbying politicians and officials for subsidies or preferential regulations - rather than on improving their products or services. The important role of politicians and officials in state-dominated economies obviously moves behaviour still further from the market model, since such actors have very different incentives from private-sector, profit-seeking entrepreneurs.

The public choice school of political economy, also known as the 'economic theory of politics', demonstrates how the incentives facing key actors affect the policymaking process. Some of the most important insights are briefly summarised below:³

Vote buying – In An Economic Theory of Democracy (1957), Anthony Downs analyses the behaviour of self-interested politicians who act in order to obtain the power, prestige and income that comes with holding office. They have strong incentives to increase government expenditure in order to maximise votes, continuing spending until the marginal vote gain from expenditure equals the marginal vote loss from financing (ibid.: 73). Of course, in a first-past-the-post system such as the UK, there will be particularly strong incentives to 'buy' votes in constituencies that are likely to have a decisive impact on the overall election result.⁴

Pork barrel – Politicians will also have very strong incentives to direct government spending to their own local areas in order to maximise their individual electoral benefits from vote buying. In the USA, the term 'pork barrel' is used to describe spending intended to benefit local constituents in return for their political support. Typically, the benefits of pork barrel projects are spatially concentrated, while the costs are dispersed among general taxpayers. A classic UK example of this kind of activity is the Humber Bridge, which was given the go-ahead by the Labour government in 1966 during a closely fought by-election campaign in the nearby Hull North constituency (Knipping and Wellings, 2012: 26-27). Electoral incentives can also work in the opposite direction, of course, with politicians using the political process to obstruct infrastructure developments that may have substantial overall benefits but negatively affect voters in their area. In such instances, the benefits are typically dispersed while the costs are concentrated.

For a far more thorough introduction to public choice theory, see Butler (2012).

⁴ Vote-buying behaviour and using taxpayers' money to 'buy off' political opposition should not be confused with Coasian bargaining between, say, infrastructure developers and local residents (see Coase, 1960; Knipping and Wellings, 2012).

- Special interest groups Vote-maximising behaviour is of course only one aspect of the policymaking process. Becker (1983) contends that the main function of politicians and political parties is to transmit the pressure of active groups. Competition among these interest groups determines the equilibrium structure of taxes, subsidies and other political favours (ibid.: 372). Indeed, there is substantial empirical evidence that special interests play a very important role in the development of British transport policy.⁵ The influence of interest groups is likely to place general taxpayers at a disadvantage in the policymaking process.
- The logic of collective action The incentives for members of large dispersed groups such as taxpayers to get involved in lobbying or campaigning is extremely weak (Olson, 1965). The potential benefit to any individual member is small, making it rational to 'free ride' on the efforts of others. The incentives against free-riding are almost non-existent. By contrast, there are strong incentives for small, concentrated groups to engage in political action. The potential benefit may be large and the size of the group makes it practical to impose 'sanctions' to deter free-riding. Accordingly, one would expect policy debates to be dominated by small, concentrated interests, with large dispersed groups having little direct influence. While the losses to dispersed groups such as taxpavers from government programmes are potentially substantial, they are dispersed across the general population and over a long time period. As rational choice theory points out, it is not even in the interest of taxpayers to spend time and effort finding out how much government projects are going to cost them, since they are unlikely to be able to influence policy decisions by voting or other means.
- Bureaucracy Senior officials within government comprise one particularly important type of concentrated special interest. They may act to achieve a complex set of goals including power, income, prestige and job security (Downs, 1967). Under certain circumstances, budget-maximisation is a rational strategy,

For historical examples, see Plowden (1971); Dudley and Richardson (2003); and Hibbs et al. (2006).

because these goals are often dependent on a department's budget (Niskanen, 1971). In addition, they may seek to reshape their agencies to maximise non-pecuniary utilities such as status, patronage and influence, or the interest and importance of their work tasks (Dunleavy, 1991). Policies are likely to be favoured by officials if they provide opportunities for them to achieve such goals.

Some caveats have to be borne in mind, of course. The processes summarised above can only partly explain any given policy decision. Other factors are also at work. Perhaps most importantly, the development of policy takes place in the context of the ideological preferences of participants. For example, an official or politician with strongly egalitarian beliefs may still favour schemes that involve wealth redistribution even when the above-described mechanisms would pull them in a different direction. More generally, those involved in the policymaking process may frequently act for reasons other than self-interest (narrowly defined). This does not mean, however, that public-choice-type processes cannot have a powerful influence; it only means that these will not be the *sole* determinant of political decisions.

High Speed 1

High Speed 1 (HS1) would never have been built if the decision had been made on commercial criteria, or indeed on rational economic grounds. While the high-speed-rail lobby promotes the scheme as a success story, it was in fact a financial failure, marked by cost increases, repeated bailouts, disappointing passenger numbers and failed objectives.

The cost of the final HS1 scheme was far in excess of original estimates. In November 1985, British Rail's preferred high-speed option was costed at about £1 billion in 2013 prices (Myddelton, 2007: 149), while the final cost of the project has been estimated at approximately £11 billion in today's prices (NAO, 2012: 7). Moreover, after the line opened low passenger numbers meant that the operator, Eurostar, had to be bailed out by the Department for Transport. Further indirect government support for the struggling route was achieved via the access charges for (subsidised) Kent commuter services. According to a National Audit Office analysis of HS1:

'Under the new track access charging regime, access charges paid by Eurostar were reduced to the levels being paid by the domestic operator. A greater proportion of overall charges (60 per cent of HS1 Limited's forecast access charge income over the 30-year concession) is now paid by the domestic operator because it uses more of the capacity of the line. To support domestic high speed services, the Department pays additional subsidy to the domestic train operating company.

In addition the DfT provided support worth £217 million to free Eurostar UK of its legacy liabilities, give the company sufficient capital to support trading in adverse conditions and help purchase new trains when necessary (NAO, 2012: 21).

The Department forecasts that additional subsidy payments will amount to almost £110 million in 2011-12. If this level of subsidy in 2010 prices was to continue until the end of the concession in 2040, we estimate that the present value of subsidy payments will be some £2,100 million but the actual level will depend on the outcome of future franchise negotiations.' NAO (2012: 21)

In addition to substantial operating subsidies, HS1 has been artificially supported by the manipulation of the rail market. Some services from Kent stations to convenient London termini such as London Bridge, Cannon Street, Charing Cross and Victoria have been cut, while others have been slowed down, in an apparent attempt to drive passengers onto HS1. Commuters across the Southeastern franchise area also faced steep increases in fares to pay towards the high-speed services, whether they used them or not.⁷

But taxpayers and many Kent commuters were not the only groups to lose out from the evolution of the scheme. After the Channel Tunnel opened, international train services terminated at Waterloo, which was very convenient for high-value business travellers based in central London. Waterloo is just a three-minute ride by Underground train from Bank at the heart of the City of London, and just a ten-minute journey from Canary Wharf, the other major financial centre.8 The new line terminated at St Pancras, however, which was less convenient for many travellers. While promoters of the project claimed that it shaved twenty minutes from journey times to Paris and Brussels, for many users the door-to-door time savings were small or non-existent.

Many of the objectives of HS1 have also yet to be achieved. Plans to run international services from Stratford in London and through services to the Midlands and the North did not materialise due to low demand. At the time of writing, Eurostar trains do not stop at the £250 million (2013 prices) Stratford International station. And notwithstanding exceptional traffic during the 2012 Olympics, it appears that the stop is only lightly used by commuters from Kent,

^{7 &#}x27;Southeastern commuters face double fare rise', Daily Telegraph, 26 October 2009.

⁸ Travel times calculated using Transport for London's Journey Planner: http://journeyplanner.tfl.gov.uk

handling on average fewer than 1,000 passengers per day in each direction.9

HS1 also provided a rationale for the construction of additional transport infrastructure at further expense to the taxpayer. A £250 million (2013 prices) extension to the Docklands Light Railway (DLR) was constructed partly to improve the accessibility of Stratford International. The line also provided a major justification for the redevelopment of Kings Cross St Pancras Underground station, at an additional cost of approximately £1 billion (2013 prices).¹⁰

It should also be noted that much of the 'regeneration' along the route has been state-funded. Unfortunately the unique nature of the London 2012 Olympic Games at Stratford makes it difficult to draw conclusions that are relevant to HS2 and other large infrastructure projects. It is likely that the redevelopment of land near Kings Cross – also partly government funded - would have been viable without the link, given the artificial scarcity of development opportunities produced by strict planning controls in and around London. Indeed, the redevelopment of such areas may be delayed by the uncertainty and planning blight associated with major transport schemes.

Even if one makes highly optimistic (and questionable) assumptions about the wider economic benefits of HS1, it is clear that the project represented very poor value for money compared with alternative investments in transport infrastructure (see NAO, 2012). An analysis of the political economy of the scheme could therefore provide valuable insights into the decision to proceed with HS2.

Notwithstanding the role of incentive structures in the evolution of the project, it is clear that political ideology also played an important role. Under the Conservative government of Margaret Thatcher there was deep scepticism about the Channel Tunnel Rail Link, and an insistence that any high-speed line should be funded by private investors rather than taxpayers (see Myddelton, 2007).

⁹ See ORR estimates of station usage: http://www.rail-reg.gov.uk/server/show/ nav.1529

^{10 &#}x27;Mayor and Transport Secretary open Kings Cross St Pancras Western Ticket Hall', Greater London Authority press release, 25 May 2006, http://www.tfl.gov.uk/static/ corporate/media/newscentre/archive/3610.html

This reflected an ideology which, in theory at least, favoured markets over state intervention. In this context, the line was unlikely to be built, because it would not be commercially viable.

Mrs Thatcher was deposed in 1990 and subsequently, under John Major, more figures from the 'left' of the party joined the cabinet. Michael Heseltine, described by Sir Peter Hall as philosophically 'an interventionist on a positively French scale', became Secretary of State for the Environment (Hall, 2007: 8). The Channel Tunnel Rail Link, and in particular the route via North Kent and East London, was viewed by Heseltine as a key component of the regeneration of the 'Thames Gateway' region, and therefore as an appropriate recipient of government money:

I decided to support a line which would avoid residential areas in south London and instead go through the declining industrial marshlands alongside the Thames Estuary and east Kent and open up the redundant rail yards and depots at Stratford in the East End...

'...as Environment Secretary in 1990 I was convinced that the East End corridor down the Thames Estuary from Docklands to the North Sea represented an under-used asset which should be developed so the nation could reap its potential – not just at Stratford but also in the areas of north Kent.' (Heseltine, 2010: 6-7)

According to Hall (2007: 8), Heseltine's involvement was critical to the implementation of the scheme:

'His passion for the grand design, his extraordinary power of advocacy backed by total conviction of the rightness of his cause, his knowledge that he carried unique clout within the ranks of the Tory conferences, brought him victory. At critical junctures...he was able by sheer moral power and authority to bulldoze the conventional ranks of the opposition.'

This high-level ministerial support added to the momentum achieved by various special interest groups promoting the line. Chief among them was the East London borough of Newham. Led by Stephen Timms, who became chairman of Newham's environment committee in 1986 and leader of the council from 1990 to 1994, local MPs and councillors lobbied hard for a high-speed link to be built through the borough with a station at Stratford (Faith, 2007: 57-58).

They believed that such a project would help regenerate their area, one of the poorest in London.

It would probably be unfair to classify this activity as 'pork barrel', given that Newham is a very safe Labour area and there is little incentive to 'buy votes' by obtaining central government spending. Nevertheless, it certainly could be described as a concentrated special interest seeking to influence policy.

Similarly, MPs, local authorities and other bodies in the Midlands and North lobbied for the line to improve rail access to the continent from provincial cities, despite the large additional costs involved in crossing Central London. In a House of Commons debate on the link in 1990, the MP for Blackpool North described some of the individuals and organisations involved in this campaign:

'Anxieties have already been expressed by my right hon. Friend the Member for Blackpool, South (Sir P. Blaker), and by the right hon. Member for Halton (Mr. Oakes) and the hon. Member for Nottingham, North (Mr. Allen) that the link should benefit the north just as much as anywhere else...Those who look after our interests include the Channel Tunnel Group, which comprises the most powerful and influential bodies in the north-west. They include north-west local authorities; Rail Forum; Greater Manchester Economic Development Limited; Central Manchester, Merseyside and Trafford Park development corporations; English Estates; chambers of commerce in the north-west of England, and the Confederation of British Industry in the north-west.

The decision-making process was not just subject to pressure from organisations primarily concerned with what might be termed regeneration objectives. Other powerful interests focused on stopping the route passing through their own areas.

The original proposals for the route from British Rail followed more southerly routes through Kent and into South London, creating massive opposition from local MPs, councillors and residents. Numerous protest groups were formed, including CHARGE (Channel Action Residents' Groups Executive) and North Downs Rail Concern, which was presided over by the local MP. Indeed, Kent alone had thirteen MPs, all of them Conservatives and five of

them ministers. Most of them were highly active in opposing BR's plans (Faith, 2007).

The Conservative Party viewed the political threat as so serious that the chief BR planner was summoned to a meeting with Prime Minister Margaret Thatcher in 1989. Her opening remark was telling: 'So you're the man who's going to lose us the Kent local elections' (ibid: 70). Accordingly, Conservative politicians played a leading role in lobbying for a line that avoided their areas. For example, the MP for the marginal constituency of Dulwich in South London, initiated a debate in the House of Commons in May 1990, 'That this House urges British Rail to give full and thorough consideration to proposals for a Channel Tunnel Rail Link based on a junction at Stratford...'12 He argued that the new line should 'offer all parts of the United Kingdom - all the major cities, all the industrial conurbations and all the regions - the opportunity for a fast and direct link to continental mainland Europe.'

Proposals to route the link through North-East Kent and South Essex were praised for recognising 'the concept of a Euro-rail link and the need for a strategic integrated transport plan for the United Kingdom and the rest of Europe', surprising language for an ostensible conservative. Wider economic benefits would also be a key rationale:

[T]hey will take the route through one of the most deprived parts of the south-east where there is a fair amount of derelict industrial land and the local communities could benefit from an economic uplift. Any such route, with its freight and passenger transport potential, would introduce new jobs and give a boost to the industrial economy. We should consider the issue not only from the benefit to be gained from operation of the route, but from the intrinsic value it will have for the community through which it passes.'13

Clearly the justifications for the Channel Tunnel Rail Link had expanded far beyond commercial viability criteria. The contributions to the Commons debates of this period, dominated by MPs with local interests in South London, Kent and Newham, suggest that political incentives were crowding out economic concerns.

¹² Hansard, HC Deb, 18 May 1990, 172: 1125-89.

¹³ Ibid.

This is not to suggest, however, that the economic incentives facing corporate interests played no part in the policymaking process. The engineering firm Arup played an extremely important role in developing and promoting the concept of a fast rail link to the Channel Tunnel through Stratford. According to its former Director,

We were instrumental in setting up London and Continental Railways, the firm awarded the concession to build and operate the Channel Tunnel Rail Link. And we worked together with our fellow shareholders Bechtel, Halcrow and Systra to set up Rail Link Engineering (RLE) to design and project manage the 109km high speed railway.

'We believed in the right line and we worked for twenty years to see it completed.' (Bostock, 2007)

Arup's role went far beyond the planning and construction of the route. The firm hired Maureen Tomison as a public affairs consultant. According to Faith (2007: 120-122),

'[She] was to play an important role in ensuring that the firm's proposals had backing from MPs...

'...Tomison's main role was straightforward lobbying...[her] first contribution was to attend up to 90 meetings, mostly at weekends, with small groups of locals; she also claimed to have contacted 27 MPs in July 1989 alone.'

Members of Arup's team described her role as follows:

'She was crucial in getting us access to MPs and enabled us to network with them in an informal setting at her many parties. ... There was always a member of the cabinet or shadow cabinet there' (ibid: 122).

Faith suggests that 'the combination of lobbying, attendance at party conferences and "birthday parties" ensured that the argument emerged on the radar-screens of several hundred MPs...' (ibid: 123). Indeed, the crucial role played by Arup's campaign was explicitly acknowledged by Malcolm Rifkind, the Secretary of State for Transport who announced government approval for the scheme (ibid.).

While one can question the morality of attempting to influence policy in this way – particularly if the resulting profits are dependent on taxpayer support – it would appear to be entirely rational from the perspective of narrow economic incentives. Not only did Arup benefit financially from the contract to build the high-speed line; the resulting raised profile of the firm arguably helped it expand and gain other contracts.

In conclusion, it would appear that both lobbying by special interest groups and electoral incentives played a decisive role in the development of High Speed 1, although the project also required ideological support from key government ministers. Bureaucratic incentives seem to have had far less influence, at least at the national level, with some elements at the Department of Transport reported to be sceptical about the project and to some extent obstructive (see, for example, Faith, 2007: 123; Myddelton, 2007: 149). This may partly have reflected the fact that the scheme was largely planned and developed outside the department, by firms such as Arup in consultation with local authority officials in East London and Kent.

Jubilee Line Extension

The Jubilee Line Extension (JLE) is another relatively recent big government transport project with potential lessons for the analysis of High Speed 2. The scheme extended the existing London Underground Jubilee Line south of the Thames to Waterloo and then east to the redeveloped Docklands area in the East End. The route then headed north from the Greenwich Peninsula, site of the Millennium Dome, to terminate in Stratford, where passengers could change to the Central Line and heavy-rail commuter services.

The route is just ten miles long and is perhaps most remarkable for its enormous cost. In the late 1980s Docklands property developers Olympia and York originally planned to spend around £600 million (c. £1.2 billion in 2013 prices) on the Waterloo and Greenwich railway that would link central London to Canary Wharf. However, senior officials within London Transport and the Department of Transport (DoT) obstructed the scheme, which metamorphosed into a big government project (see Harrison, 2006). It is probable that bureaucratic interests saw a successful private scheme as a major threat to their budgets and status.

Whereas private investors would have had strong incentives to keep costs down, politicians and officials had strong incentives to 'buy off' concentrated interest groups at the expense of general taxpayers. This is exactly what happened. Policymakers came under heavy lobbying to add to the route specifications. Unlike the original Waterloo and Greenwich scheme, the line would be linked to the existing Jubilee Line, and it would involve not one, but two tunnels under the Thames at Greenwich. And rather than terminating at Greenwich, the route would head three miles north

to Stratford in East London, a decision influenced by regeneration objectives and supported by interests such as London Transport, local councils and economic development bodies.¹⁴

The addition of extra stations to the line was another classic example of concentrated special-interest lobbying. The line passed through MP Simon Hughes' constituency and, together with the council and other local interests, he campaigned vigorously for stations to be built in Southwark and Bermondsey. In the words of Hughes:

'...there was a not insubstantial battle in which I was, for obvious reasons, directly involved not only about whether there would be stations to intersect at Waterloo and London Bridge and at a new station - still called Canada Water, but known to locals as Surrey Docks - but about whether there would be additional stations at Blackfriars and Bermondsey. It looked as if there would, and then it looked as if there would not.

'There was intensive lobbying and a meeting - the Minister was kind enough to see us - with representatives of the local authority in Southwark. Eventually, in the autumn of the year before last, it was confirmed that the Southwark and Bermondsey stations were a secure part of the package...'15

The economic case for the latter stations was questionable however – particularly in the case of Bermondsey – since usage was expected to be relatively low and their construction would raise costs and significantly increase journey times for those passengers not using them. Parliamentary supporters of the stations threatened to delay the legislation to build the JLE, however, and, anxious to avoid this, the DoT 'recalculated' the cost-benefit analysis and decided the stations would be built after all (see Harrison, 2006).¹⁶

A combination of specification changes and construction cost overruns – the latter made more likely by the former – meant the cost to the taxpayer of the scheme was £3.5 billion (£5.3 billion in 2013 prices), about four times the original estimate in real terms.

¹⁴ On the 'turf wars' involving London Transport and the Department of Transport, see Harrison (2006: 69-73).

¹⁵ Hansard, HC Deb, 18 May 1992, cc119-28.

¹⁶ Even after the recalculation, the BCR for Bermondsey was very low at 1.34:1, while for Southwark it was much higher at 2.99:1 (Harrison, 2006: 73).

The final cost is likely to be even higher, as construction of one of the additional sections has led to severe subsidence problems in Westminster.¹⁷

¹⁷ See for example, 'Houses of Parliament could be sold because building is sinking', Daily Telegraph, 23 January 2012.

High Speed 2

There are a number of clear parallels between the political economy of these big projects and the processes that appear to have influenced the decision to proceed with High Speed 2. As with High Speed 1, there is compelling evidence that electoral calculation, i.e. 'vote-buying', has been instrumental in the genesis of the policy. At the same time, concentrated special interest groups, led by local authorities and rail/engineering firms, have been at the forefront of the high-speed-rail (HSR) lobby. The kind of 'pork barrel' spending to satisfy local interests arguably seen with the Jubilee Line Extension is also evident, which is highly likely to add significantly to the overall cost of the scheme.

The sheer scale of High Speed 2 means, however, that the processes observed in the development of HS1 and the JLE are likely to be magnified. If the basic HS2 scheme costs around £50 billion, then its budget will be roughly five times larger than HS1 and ten times larger than the JLE. The scale and cost of the line mean its political salience is perhaps unique among contemporary and recent projects.

Ideological context

As with High Speed 1, the policy would appear to have been influenced partly by the ideological context. An important question is why HS2 became Conservative Party policy, given that the Conservatives have led the coalition government that gained power in 2010. Elements within the party have traditionally been sceptical about big, centrally planned, government projects.

It seems likely that the election of David Cameron as leader in 2005 created an ideological climate more favourable to the adoption of high-speed rail. As with the election of John Major in 1990, it arguably represented a shift back towards a style of conservatism that is far more comfortable with large-scale state intervention than Thatcherism. One aspect of this was the apparently strong support for environmentalism by the new leadership, under the slogan 'Vote Blue, Go Green'.¹⁸

High-speed rail (HSR) was not officially adopted until the September 2008 Conservative Party Conference, however, when Shadow Transport Secretary Theresa Villiers announced plans for a new '£20 billion' line linking London St. Pancras with Birmingham, Manchester and Leeds. And while the interventionist ideology of the party leadership probably made the policy more acceptable, it appears to have been based more on crude electoral calculation than political philosophy.

Buying votes

The leadership's support for high-speed rail appears to have been closely related to its decision to stop the expansion of Heathrow Airport. Thus the 2010 supplementary manifesto stated: 'We will stop the third runway and instead link Heathrow directly to our high speed network, providing an alternative to thousands of flights' (Conservative Party, 2010: 17). The new line, it was argued, would encourage travellers to take the train rather than fly on both domestic journeys and short-haul routes to the continent, thereby reducing pressure on the already overcrowded UK hub. In reality, though, such a scheme was not a practical solution to the capacity crisis at Heathrow (see Aizlewood and Wellings, 2011: 16-17). It did however allow the Conservative leadership to claim that, by providing an alternative for travellers, it could stop Heathrow expanding without inflicting significant damage on the economy (ignoring the fact that, unlike a third runway at Heathrow, the high-speed link would be a major burden on taxpayers).

¹⁸ See, for example, 'Cameron vows "green revolution", BBC News, 18 April 2006, http://news.bbc.co.uk/1/hi/uk/4917516.stm (accessed 15 July 2013).

A former member of the Shadow Cabinet put it as follows:

'HS2 originated from a flawed political confection before the election. It was conjured up as a way of evading the electorally toxic decision on Heathrow on the grounds that it would relieve the pressure by providing fast travel to the airports of the North.'¹⁹

Accordingly, at a 2012 Conservative Party Conference fringe meeting, a Conservative MP provided the following explanation for the decision to prevent Heathrow expansion: 'Well, it won us six seats!'²⁰ That may be a simplification, but it seems highly implausible that electoral incentives did not play an important role. According to a respected party insider, 'Desperate to win votes across the South-East – which we would otherwise have lost to the Liberal Democrats – we made the wrong commitment...'²¹ Indeed, one analysis of the arithmetic estimated that at least ten seats in London could be swayed by the issue, enough plausibly to change the overall outcome of the election.²²

The Heathrow expansion plans were also opposed by Boris Johnson in his successful campaign to be elected Mayor of London in the May 2008 elections.²³ He won with 53 per cent of the vote in the final rounds, compared to 47 per cent for Ken Livingstone. The narrow margin suggests it may have been difficult to become Mayor without opposing the third runway. And it would have been very awkward politically for the Conservative Party to support Heathrow expansion when one of its most high-profile leaders was opposed to it.

The leadership also came under pressure from interests in West and South-West London, which included the 2M Group of local councils. In July 2008, a couple of months before the Conservative Conference, the 2M Group published its *Joining Up Britain* report, designed and produced by the Corporate Communications Unit of

^{19 &#}x27;HS2 is not the right way to spend £50bn', Sunday Telegraph, 21 July 2013.

²⁰ Personal communication.

^{21 &#}x27;We made a silly promise not to build a third runway for Heathrow but it was a promise', *ConservativeHome*, August 2012.

^{22 &#}x27;Battle over third runway set to decide the fate of 10 seats', London Evening Standard, 27 April 2010.

²³ See, for example, 'Reaction: Heathrow expansion', BBC News, 22 November 2007, http://news.bbc.co.uk/1/hi/uk_politics/7107549.stm (accessed 12 July 2013).

Conservative-controlled Wandsworth Council (Elliff, 2008). This study outlined a plan to build a high-speed rail line to the North and Midlands as an alternative to airport expansion.

It is difficult to assess precisely the influence of the pressure and proposals generated by such interests on Conservative policy. Nevertheless, geographical proximity to Central London gives representatives of these areas considerable advantages in terms of access to key policymakers. Moreover, West and South-West London are home to a high proportion of the 'metropolitan elite', including opinion formers such as journalists as well as senior officials and politicians. Adopting this policy would potentially have political benefits beyond local electoral gains. At the same time, the main political costs of the decision to build a high-speed line would only be felt several years later, in particular when details of the route were announced.

In January 2009, High Speed 2 Ltd was created by the Labour government in order to examine the business case and potential routes for a high-speed line to the Midlands and North. This reflected a major shift in policy. Just a few months earlier in September 2008, the Secretary of State for Transport, Ruth Kelly, had described the Conservatives' plans to substitute HSR for Heathrow expansion as 'politically opportunistic, economically illiterate and hugely damaging to Britain's national interests.'24 Indeed, the Eddington Report, commissioned by the government and published in 2006, is sceptical about the economic benefits of HSR (Eddington, 2006: 49), while the 2007 transport White Paper only mentions HSR briefly (DfT, 2007). By October 2008, however, Kelly had been replaced as Secretary of State by Geoff Hoon, who announced the creation of a National Networks Strategy Group to advise on the development of UK infrastructure. Significantly, the body was to be chaired by Lord Adonis, a keen enthusiast for high-speed rail.²⁵ Despite the shift in government policy, the Conservatives were able to claim that they

^{24 &#}x27;Delegates welcome Tory plan for high-speed rail link', The Guardian, 29 September 2008.

^{25 &#}x27;Minister backs electric rail routes', Financial Times, 30 October 2008; see also Adonis (2008).

had taken the political lead in supporting high-speed rail²⁶, and the evidence appears to support this.

A further contributory factor to the Conservatives' policy position may have been the party's relatively poor performance in the North of England in recent elections. The region has become a major cause for concern among party strategists (see Skelton, 2013) and the proposed line has been championed by ministers as a way of rebalancing the economy and tackling the North-South divide. Moreover, the cost of the scheme will be disproportionately borne by taxpayers in London and the South-East, where average incomes and tax revenues are higher.

If the intention was to use HS2 to 'buy votes' in the North then it is far from clear that the strategy has been successful so far. For example, a recent study found that: '[a]ttitudes to High Speed 2 are similar in North and South: in the North 53% disagree that it is a good use of money, while 32% think it is' (O'Brien and Wells, 2012: 36). However, a far more detailed analysis would be required to ascertain whether enthusiasm for HS2 is disproportionately concentrated among swing voters in constituencies where Conservative electoral gains are feasible.

The high-speed-rail lobby

If the impetus for the Conservative Party's adoption of high-speed rail came at least partly from 'vote buying' incentives, as seems likely, it would appear that other concentrated interest groups have subsequently played a critical role in fostering cross-party support for HS2 in the context of growing concerns about the scheme's high cost and weak business case.

Key supporters have included train manufacturers, other rail/ engineering firms and city councils in urban centres connected to the route - all concentrated interests who stand to gain from the

See, for example, 'Adonis catches up on high-speed rail', S. Hammond, http://www.guardian.co.uk/commentisfree/2009/aug/06/high-speed-rail-adonis-conservatives (accessed 13 August 2013).

project going ahead. For example, the contract to build the trains is likely to total approximately £7.5 billion.²⁷ There will also be valuable contracts for installing signalling systems, building tunnels and so on. The benefits of HS2 are likely to be concentrated in areas around the new stations, so the support of local politicians and officers of city councils is understandable. In addition, they are likely to benefit from central government funding of transport schemes that link in to HS2 (see below), as well as related taxpayer subsidised regeneration projects, as was the case with High Speed 1.

Senior local government figures have indeed played an important role in lobbying for HS2. For example, the leader of Birmingham City Council (until May 2012) gave firm backing to the project, 'identifying it as his number one priority and allocating £50,000 to the Yes to HS2 group.'²⁸ The West Midlands' 'Go HS2' lobby group comprises Centro (the West Midlands regional transport authority), Birmingham City Council, Birmingham Chamber of Commerce, Birmingham Airport, the NEC Group, Birmingham Future (part of Birmingham Forward) and Business Birmingham.²⁹

The leader of Manchester City Council has been another key advocate of high-speed rail. He was chair of the HSR\UK campaign which promoted 'the benefit of high-speed rail to UK plc' and was sponsored by eleven city councils across Britain.³⁰ It would appear to have been successful at influencing policymakers. According to the PR firm involved:

'We kicked off the campaign with a launch event featuring three frontbench spokespeople, including the Secretary and Shadow Secretary of State for Transport, and the eleven city leaders. This provided an excellent platform with which to engage with MPs and senior advisers, at party conferences and in Westminster, in the run-up to the election. We worked with city press offices to provide a constant stream of stories for local and regional media...'

²⁷ See: http://www.hs2.org.uk/about-hs2/facts-figures/route-trains-cost (accessed 16 July 2013).

²⁸ Ibid

²⁹ See http://www.go-hs2.com/ (accessed 5 June 2013).

^{30 &#}x27;HSR//ÜK campaign', Freshwater Public Affairs, http://www.freshwater-uk.com/images/24/hsr-uk-campaign.pdf (accessed 6 June 2013)

As a result of this approach,

'There was good awareness of the campaign amongst senior policy advisors and MPs; there were thousands of pieces of press coverage over six months of the campaign on the benefits of high speed rail and hundreds of endorsements of the campaign on our website. All three main parties went into the general and council elections supporting the principle of high-speed rail.'31

The prominent role of local authorities and related bureaucracies mirrors the experience with High Speed 1 and the lobbying activities of councils such as Newham. A further striking parallel is the involvement of the rail/engineering sector in the promotion of HS2. This is economically rational from a rent-seeking perspective, since very large contracts will be awarded if the line goes ahead. The full role of rail firms is difficult to discern without access to the content of private meetings and discussions, but there is enough indicative evidence to be confident of their active involvement. It is hoped that the details sketched below will provide a starting point for more comprehensive research into this area.

The Campaign for High Speed Rail, formed in March 2011, was very active in promoting HS2 in the two years of its existence. According to the *Guardian*, various rail companies were asked to contribute £10,000 each to the campaign, which aimed to target 'the British "commentariat" of government, media and NGO opinion-formers who can terminally undermine confidence in the principle of high-speed rail by making our case through national/regional press, the blogosphere, opinion research and one-to-one briefings...'³² The organisation was apparently launched 'following a dinner attended by the transport secretary, Philip Hammond, and senior transport industry figures.'³³

Another way rail firms appear to have bolstered the pro-HS2 effort is through the sponsorship of events, which have brought together key policymakers and industry representatives. In Autumn 2012,

³¹ Ibid.

^{32 &#}x27;High Speed Two campaign seeks £10,000 contributions from backers', *Guardian*, 25 April 2011.

³³ The report states that Hammond did not take part in any fund raising activity at the dinner (ibid.).

for example, they supported a series of fringe events at the major party conferences entitled 'How to Sustain the Growth in Rail Travel', which provided an opportunity for participants to make the case for HSR. The speakers at the Conservative fringe event included the Secretary of State for Transport, Professor David Begg (Director of the Campaign for High Speed Rail and Chief Executive, *Transport Times*), Steve Scrimshaw (Managing Director, Siemens Rail Systems) and Alistair Gordon (Chief Executive, Keolis UK).³⁴

Other events addressed by Secretaries of State for Transport and sponsored by various companies with interests in rail have included 'Making HS2 Happen' (January 2012); 'Operating more efficiently and delivering an increase in capacity through HSR' (Autumn 2011); 'Is the North Losing Out on Transport?' (March 2011); 'Sustaining the Momentum on UK HSR' (November 2010); and 'High Speed 2: The Next Steps' (March 2010), the latter sponsored by Siemens, Systra and Alstom.³⁵ This is only a small selection of the many corporate-sponsored events and meetings that have brought senior policymakers and industry representatives together to discuss high-speed rail. Companies with a potential commercial interest in HS2 have also held several private meetings with transport ministers - although it is not clear to what extent the project was discussed at these.³⁶

Rail firms have also influenced the high-speed debate through the sponsorship of research. Siemens and Systra, for example, sponsored a report into the carbon impacts of HS2 by Greengauge 21, a not-for-profit company that has produced research supportive of high-speed rail (see Greengauge 21, 2012). The report is frequently cited by HSR supporters who claim the project is environmentally friendly (for alternative evidence, see Kemp, 2004). Greengauge 21 'fully supports the development of a high-speed rail network for Britain'³⁷ and claims that 'the case for high-speed rail is compelling'³⁸

³⁴ See: http://www.transporttimesevents.co.uk/conferences.php/Fringe-Events---How-to-Sustain-the-Growth-in-Rail-Travel-34/ (accessed 13 August 2013).

³⁵ See: http://www.transporttimesevents.co.uk/conferences.php/High-Speed-2---The-Next-Steps-3/ (accessed 16 July 2013)

³⁶ See 'Ministerial transparency data for Department for Transport', https://www.gov.uk/ government/publications/ministerial-transparency-data (accessed 6 June 2013)

^{37 &#}x27;HS2 Consultation – Supplementary Response', Greengauge 21, http://www.greengauge21.net/publications/hs2-consultation-supplementary-response/

^{38 &#}x27;High-Speed Rail', Greengauge 21, http://www.greengauge21.net/high-speed-rail/ (accessed 6 June 2013)

Rail companies have also supported the High Speed Rail Industry Leaders Group (ILG), whose members include Atkins, Bechtel, Carillion, CH2M Hill, Parsons Brinckerhoff, Siemens and the Railway Industry Association. The organisation uses 'industry expertise to ensure that Britain's national high-speed rail network is delivered successfully to world-class standards'. The ILG's first priority is 'to research the number of jobs that will be created in the planning, construction and operational phases of HS2.'39

Changing opinion

In another striking parallel with the promotion of High Speed 1, the Campaign for High Speed Rail hired a public relations firm to help influence opinion. This appears to have been a successful strategy. According to the Campaign's Director, David Begg,

'The [public relations] team...showed exceptional energy, creativity and stamina. Through their work with media and stakeholders, our opponents found themselves pushed back and the arguments for high-speed rail were better understood.'40

As part of the campaign, the PR team deployed a number of strategies:

- Started an early-morning rebuttal operation that helped push back on false assertions and myth generation by opponents of high-speed rail.
- Mobilised stakeholders through regular webinars, community meetings and direct mail to recruit a panel of 1,000 supportive businesses and an alliance of pro-HS2 groups.

^{39 &#}x27;HSR Industry Leaders Group', http://www.greengauge21.net/ilg/ (accessed 8 August 2013)

⁴⁰ See: http://changeopinion.com/project/highspeedrail/ (accessed 17 July 2013)

- Launched a press operation supported by on-the-ground events such as the "Yes for Jobs" bus tour to generate positive stories.
- Worked with MPs to help form a new All-Party Parliamentary Group which has launched an inquiry into the viability of alternatives to HS2.'41

As a result, the PR firm claims, 'HS2 now has a well-organised support system with clear messages and advocates in the media, Parliament, regions and business community.'42 Such accounts provide evidence of some of the methods used by interest groups in an attempt to influence the debate.

Both the Department for Transport and HS2 Ltd have also engaged public relations professionals to promote HS2, using the same firm as the Campaign for High Speed Rail. In a written answer in July 2013, rail minister Simon Burns stated:

'HS2 Ltd and the Department have used two contractors in promoting HS2:

By HS2 Ltd

Westbourne Communications Ltd - £80,304.00 Tomboy Films UK Ltd - £86,043.60

By DFT

Westbourne Communications Ltd - £23,952.00

In addition to the figures above, HS2 Ltd currently have two staff from Westbourne on secondment, specifically working on the promotion of HS2. Costs for these secondments paid to Westbourne to end June are £84,480 and fall to HS2 Ltd's communications professional services budget. 43

⁴¹ Ibid.

⁴² Ibid.

⁴³ Hansard, 5 July 2013, Column 851W, http://www.publications.parliament.uk/pa/ cm201314/cmhansrd/cm130705/text/130705w0002.htm (accessed 18 July 2013)

In addition, coalitions of pro-HS2 organisations, including local authorities, have initiated regionally based public relations campaigns, for example in the North West.⁴⁴ Accordingly, a significant proportion of HS2-related lobbying appears to be state funded, raising important questions about government effectively using taxpayers' money to lobby itself (see Snowdon, 2012).

'Their lawns or our jobs'

The pro-HS2 lobby has clearly been able to take advantage of the incentive structures associated with the scheme. Funding has been available from concentrated special interests standing to benefit economically from HS2. At the same time, general taxpayers, the largest group to lose out from the scheme, are too dispersed to engage in active opposition. Accordingly, residents of communities negatively affected along the route have undertaken a high proportion of campaigning against the line, together with local politicians in these locations. Once again, these are concentrated interest groups, many of whose members face considerable disruption if the line goes ahead.

The route of Phase One passes through the Chilterns and then up through rural Oxfordshire and Warwickshire to the West Midlands. These are relatively wealthy parts of the UK, enabling the pro-HS2 campaign to portray opposition to the scheme as 'posh people standing in the way of working-class people getting jobs.'45 A poster campaign aimed at northern audiences deployed the slogan 'Their lawns or our jobs', together with images of a stereotypical upperclass businessman wearing a bowler hat and of a country mansion.46 In reality, the spatial distribution of the employment impact of HS2 is highly uncertain.47 And the scheme may reduce employment overall due to the negative effects of the tax bill (see Mises, 1949: 776-777).

^{44 &#}x27;Lexington to help Manchester group fight for HS2 rail link', PR Week, 10 July 2013, http://www.prweek.com/uk/news/article/1190022/lexington-help-manchester-groupfight-hs2-rail-link/ (accessed 18 July).

^{45 &#}x27;High-speed rail opponents "portrayed as posh nimbys" by peer's lobbying firm', *The Observer*, 7 April 2013.

^{46 &}quot;Their lawns or our jobs": Pro high-speed rail link posters resurrect the north-south divide', *Daily Mail*, 20 June 2011.

⁴⁷ For a brief overview of the academic literature, see Tomaney (2011).

Despite the obvious flaws in the argument, much of the media coverage of the HS2 debate has been framed in terms of economic benefits versus NIMBY⁴⁸ objections, particularly in the local and regional press in the North and Midlands. Many local and regional outlets parroted the line that 'one million jobs' were under threat unless the scheme went ahead. Similarly, there have been numerous stories making outlandish claims about the economic benefits of HS2. One local newspaper article even suggested that 'Studies undertaken on behalf of Leeds and Sheffield city regions show that the route north of Birmingham will...create three million jobs.'⁴⁹

The sources of such stories have frequently been local and regional bureaucracies such as councils, public transport authorities or European Union funded development agencies. Local and regional media outlets often have close relationships with such bodies, being dependent on them for content, advertising revenue and sponsorship of events. It is therefore unsurprising that such outlets tended to follow their lead by adopting a strongly pro-HS2 line. This is not to suggest that media organisations cannot act independently. For example, the *Yorkshire Post*, based in Leeds, launched its own 'Fast Track to Yorkshire' campaign.⁵⁰

Disproportionate influence

The evidence suggests that a relatively small number of active parties, many of them closely linked by shared financial interests, were able to have disproportionate influence on the High Speed 2 debate and the decision to proceed with the line. This does not mean, however, that corrupt activities were taking place. When major multi-billion-pound contracts are at stake, as is the case with HS2, it is perfectly rational for potentially large beneficiaries to devote resources to lobbying. It also makes sense for rail firms to support the public transport lobby more generally, through sponsorship of meetings, conferences, awards, funding trade publications and

⁴⁸ Not In My Back Yard.

^{49 &#}x27;South Yorkshire battles for HS2 link', Rotherham Advertiser, 14 July 2011, http://www.rotherhamadvertiser.co.uk/news/89827/south-yorkshire-battles-for-high-speed-rail-link.aspx (accessed 17 July 2013)

^{50 &#}x27;Push for fast track to North as high-speed rail wins go-ahead', *Yorkshire Post*, 11 January 2012.

reports etc., as this helps mould policy in a direction that sustains the flow of taxpayer subsidies for the sector.

The clear role of special interests in shaping policy on HS2 and transport more generally does not mean, however, that other factors are not at work. The importance of the ideological context has already been mentioned. Many of the individual actors working for rail firms, PR companies, local authorities and government departments may mean well when they promote particular projects (see Myddelton, 2007). They may not be motivated by narrow self-interest but rather by a belief that the scheme will deliver substantial benefits for others. However, this might partly reflect self-selection bias, in the sense that individuals whose worldviews are compatible with the goals of special interests are more likely to want to work for them. Similarly, individuals whose ideological standpoint runs counter to those interests may not be recruited. Thus the ideological context in which policy decisions take place is not necessarily independent of the influence of special interest groups.

⁵¹ Vaubel (2009) makes this point in connection with the dominance of Europhiles in the institutions of the European Union.

Implications for government spending

Overall it can be seen that the incentive structures are skewed to give concentrated interests a much louder voice in the HS2 debate than dispersed groups. This potentially has important consequences for the trajectory of the project, given the scheme's very high level of political salience.

The negative conclusions of the May 2013 NAO report into HS2 were the lead story on national news programmes and were given high prominence in the national newspapers. A similarly high level of media interest accompanied the announcement of the Y route in January 2013. Moreover, senior ministers, including the prime minister and the chancellor, have expressed strong support for the line, so a change in policy would involve a significant loss of face. At the same time, the HS2 route runs through a large number of parliamentary constituencies, this following the 2010 general election in which no party was able to obtain an overall majority and with a strong possibility that the results of the 2015 general election could be similarly close.

Given the very weak incentives for dispersed groups to engage in the HS2 debate, policymakers have strong incentives to 'buy' the support (or 'buy off' the opposition) of active concentrated interests at the expense of taxpayers. This potentially has implications for the final cost of the scheme, since it suggests the government may increase HS2 spending in order to move the political debate in its favour, knowing that additions to an already large budget are unlikely to result in significant extra opposition from the dispersed

groups negatively affected as a result. Indeed, there is worrying evidence that this process is already underway.

Extra tunnelling

One way to 'buy off' concentrated opposition to HS2 is to put more of the line underground in tunnels. This will tend to lower the number of properties that must be compulsorily purchased and the impact on residents and businesses along the route, thus reducing the incentives for local groups to engage in activism against the scheme or vote against their local Conservative candidate. However, tunnelling is generally significantly more expensive than running infrastructure along the surface and also introduces considerable construction risks. ⁵² Thus extra tunnelling will tend to load additional costs and risks on to taxpayers.

When the government gave HS2 the go-ahead in early 2012 and published details of Phase 1, an extra 8 miles of tunnelling had been added to the original plans. The Department for Transport stated: 'HS2 runs through 13 miles of the Chilterns Area of Outstanding Natural Beauty (AONB) but fresh mitigation measures announced today mean that less than two miles will be at or above surface level.'53 The alterations were undertaken 'to help ensure the lowest possible impacts on local communities...' These changes would appear to be just the start of a process whereby design changes are implemented to appease concentrated local opposition.

Originally HS2 was to run on the surface between North Acton and Northolt in West London. In April 2013, however, HS2 Ltd recommended that the line be tunnelled on this section, following an investigation undertaken at the suggestion of local residents, Ealing Council and the Mayor of London. According to the HS2 Community and Stakeholder Manager for London, 'the recommendation to build a tunnel through Ealing and Northolt shows what can be achieved

⁵² For an overview of the pros and cons of tunnelling, see POST (1997).

^{53 &#}x27;Britain to have new national high-speed rail network', https://www.gov.uk/ government/news/britain-to-have-new-national-high-speed-rail-network (accessed 30 May 2013).

by working with local people and that we value their input and suggestion.'54

Furthermore, in May 2013 the Transport Secretary announced that a tunnel on the proposed route could be extended to enable a major development next to East Midlands Airport to progress. According to the Department for Transport:

'During discussions with MPs and Local Authorities on the proposed route for Phase Two of HS2 from Birmingham to Leeds, concerns were raised by Leicestershire County Council, and MP for North West Leicestershire, Andrew Bridgen, in conjunction with Roxhill Developments Limited, that the proposed line could affect plans for a Strategic Rail Freight Interchange depot (SRFI) next to the airport...

'After listening to these concerns, the Government has now developed a revised option involving extending the tunnel under the East Midlands Airport, avoiding the majority of the proposed SRFI site.'55

At this stage, the final cost of the extra tunnelling is not clear. Nevertheless, it is apparent that, once again, concentrated interests have been instrumental in changing the design of the scheme and potentially increasing the cost to taxpayers.

Route changes

There is also some evidence that concentrated interests have been able to influence the route of High Speed 2. After the details of the extensions to Leeds and Manchester were announced in January 2013, critics claimed that the route had been diverted in the Chancellor of the Exchequer's constituency of Tatton in Cheshire, at an additional cost of around £600m, thus keeping it well away from the towns of Knutsford and Wilmslow.⁵⁶

^{54 &#}x27;HS2 Ltd recommends tunnel under Ealing and Northolt', http://www.hs2.org.uk/press/hs2-ltd-recommends-tunnel-under-ealing-and-northolt (accessed 28 May 2013).

^{55 &#}x27;Longer HS2 tunnel could help developer create over 7,000 jobs in East Midlands', http://pressreleases.dft.gov.uk/Press-Releases/Longer-HS2-tunnel-could-helpdeveloper-create-over-7-000-jobs-in-East-Midlands-68c3a.aspx (accessed 28 May 2013).

^{56 &#}x27;HS2: Saved, by £600m high-speed detour', Daily Telegraph, 28 January 2013.

The direct route from Crewe to Manchester Airport and Manchester heads north-north-east between these two towns, whereas the actual route diverts due north before kinking sharply to the east along the M56. Links to the existing West Coast Main Line (WCML) are of course a consideration but it should be noted that the lines would already converge at Crewe. Moreover, a direct route from the northern end of Phase One to Manchester and the WCML heading north would avoid Crewe and follow a path several miles further east, even if it skirted the fringes of the Peak District to avoid difficult terrain.

Given the opaque nature of the decision-making process, it is difficult to ascertain to what extent pressure from concentrated local interests was instrumental in the diversion of the route. The leader of Cheshire East Council issued a press release stating, 'Your MPs, George Osborne, Edward Timpson and I, have fought hard to keep the line away from Knutsford and Tatton, which we have been successful in achieving', although this was later retracted.⁵⁷ An alternative explanation is that there was indeed no direct influence, but that transport officials designed the route in order to head off potentially fatal opposition within government.

Another example provides more concrete evidence that political lobbying is influencing the HS2 route. The original path of the eastern extension would have passed through three manufacturing plants in North-East Sheffield. Local MPs objected and held talks with the rail minister and senior civil servants in the hope of getting the route shifted.⁵⁸ At the end of May 2013, it was revealed that 'behind-the-scenes lobbying by Deputy Prime Minister Nick Clegg has saved a Sheffield steelworks from being bulldozed to make way for high speed rail.'⁵⁹ Indeed, it would appear that the change was confirmed by the office of the Deputy Prime Minister before it was officially announced by the Department for Transport.⁶⁰ At this stage it is unclear whether the revision will increase costs for taxpayers.

^{57 &#}x27;Cameron forced to defend George Osborne over claims he diverted planned high-speed rail line away from posh constituents', *Daily Mail*, 29 January 2013.

^{58 &#}x27;MPs in top level talks to save factories from HS2', Sheffield Star, 25 March 2013.

^{59 &#}x27;All change to save Sheffield steelworks', Sheffield Star, 30 May 2013.

^{60 &#}x27;Residents' anger as rail threat to Sheffield homes remains', *Sheffield Star*, 4 June 2013.

It will, however, reduce the economic benefits of the line. A tighter curve will be created to avoid the factories, but this will reduce the speeds of through trains from 190mph to 120mph, adding 'a couple of minutes' to journey times.⁶¹

The proven ability of concentrated local interests to pressurise policymakers into making changes to the HS2 route clearly increases the uncertainty regarding the final cost to taxpayers.⁶²

Additional infrastructure

As well as additional tunnelling and changes to the route, pressure from concentrated interests is likely to lead to further costs being imposed on taxpayers to fund new infrastructure to link to High Speed 2. Such lobbying is not entirely unwarranted, given that the line will change travel patterns and potentially place severe strain on existing transport facilities in certain locations.

Perhaps the biggest concern in terms of cost is that the Greater London Assembly and Transport for London will use potential problems created by HS2 at Euston to pressurise central government into funding a very expensive major project. The Mayor of London has already complained that the Underground will not be able to cope with 'a doubling of the current number of passengers at Euston station every morning'. It was reported that the Mayor wanted 'a commitment from the government that their proposals for HS2 would include new underground rail capacity between Euston and Victoria.' And according to the Deputy Chairman of Transport for London 4, 'there will be serious congestion problems at Euston when the line goes beyond Birmingham which need to be dealt with in a practical sense.'

^{61 &#}x27;All change to save Sheffield steelworks', Sheffield Star, 30 May 2013.

⁶² Another relevant topic is the compensation framework for affected residents and businesses. This complex area is not analysed in this paper, but there would appear to be strong incentives for policymakers to increase the speed and generosity of payments.

⁶³ See 'Boris derails Cameron's ,perverse' £34billion high-speed link', *Daily Telegraph*, 2 July 2011.

⁶⁴ Uncorrected transcript of oral evidence, to be published as HC 1185-ii, oral evidence taken before the Transport Committee, High Speed Rail, 28 June 2011.

⁶⁵ See note above.

A likely outcome is that HS2 helps tip the balance in favour of Crossrail 2, a heavy-rail link between South-West and North-East London. The cost to taxpayers is likely to be substantial, perhaps in the order of £20 billion in current prices⁶⁶ and the scheme will almost certainly represent poor value for money compared with alternative transport investments, although the benefits from the project are of course far wider than the dispersal of passengers from Euston.⁶⁷

Another risk is that cities not on the HS2 route will campaign successfully for faster rail links to connect them to the line. For example, the Liverpool City Region Enterprise Partnership is apparently 'lobbying hard' to ensure an arm of HS2 comes into the city centre. Its chairman has stressed that the route currently planned would leave Liverpool 'at a huge disadvantage compared to Manchester, particularly when it comes to attracting inward investors.' A high-speed spur to Liverpool might add £3 billion pounds or more to the cost of the scheme.

The out-of-town locations of HS2 stations on the eastern leg have also led to calls for the installation of new infrastructure. Local interest groups have called for the construction of a tram line between the station at Toton and the centre of Derby, with the cost to taxpayers likely to run into hundreds of millions of pounds. To lt may also be desirable to increase capacity on nearby roads such as the A52 and M1, given that a significant proportion of travellers will not live close to convenient public transport routes.

- 66 'Crossrail 2 consultation', TFL, http://www.tfl.gov.uk/corporate/ projectsandschemes/27405.aspx (accessed 18 July 2013)
- 67 The DfT has calculated the BCR of the current Crossrail scheme, which has clear similarities, at 1.97 (DfT, 2011). This estimate is however based on a series of questionable assumptions. Table 2 (below) suggests that, even if these figures are accepted, they are significantly lower than alternative transport investment options.
- 68 'Liverpool City Region: HS2 link vital, leaders say', The Business Desk (North-West), 3 June 2013, http://www.thebusinessdesk.com/northwest/news/474453-liverpoolcity-region-hs2-must-come-liverpool-says-lep-chief.html?news_section=473954 (accessed 10 June 2013)
- 69 Several different routes are possible. A direct route from Crewe would be at least 30 miles in length. If the spur left HS2 further north the distances would be shorter, but the link less direct. These variations would affect the cost substantially. Approximate costing is based on HS2 budgets.
- 70 See, for example, 'We need tram link to reap benefits of HS2 with maps and poll', Derby Telegraph, 29 January 2013. Young (n.d.) provides data on the cost of similar tram schemes.

Similarly, there have been calls for additional infrastructure around Meadowhall in South Yorkshire. For example, the *Sheffield Star* reports:

'Richard Wright, executive director of Sheffield Chamber of Commerce, called for better transport links to the new station.

"Plans must be created now to ensure the station is properly connected to all areas of the city region. This includes improving parking and [the] existing transport network around Meadowhall."

'Mr Wright also questioned whether the M1 exits at Tinsley could cope with increased traffic, and whether the viaduct could be strengthened to accommodate three lanes of traffic.'⁷¹

And thirty miles north in Leeds, local agencies have been promoting improvements to existing networks to maximise the benefits of HS2:

[F]or the advantages of Leeds being a high-speed city to be felt across the City Region, the existing transport network needs to be HS2-ready. The benefits of shrinking the 200-mile plus journey time from London to Leeds to under 1½ hours are reduced if it is then going to take almost half as long again to complete the less than 20-mile journey on to Halifax by local train.

'City Region Leaders will be stressing to HS2 Ltd. that investment in the existing rail network is needed. They want to see the measures identified in the Yorkshire Rail Network Study implemented.'⁷²

Table 1 provides a tentative list of projects advocated by local interests that have been suggested to link up with HS2. Since a large number of schemes have been mooted by various bodies and because the proposals are at a very early stage and subject to change, it should be seen as illustrative rather than exhaustive. However, even at this early stage it is clear that these add-on projects have the potential to add very significantly to the overall

^{71 &#}x27;South Yorks high speed train route: maps and details', Sheffield Star, 29 January 2013.

^{72 &#}x27;City Region must be 'HS2 ready' to maximise benefits to local economy', Metro (Transport for West Yorkshire), http://www.wymetro.com/High-Speed_2_Yorkshire. aspx (accessed 19 July 2013). See also Metro (2012).

cost to the taxpayer. The total additional tax bill could easily be higher than £30 billion, equivalent to around £1,000 per household. 73

Table 1: Proposed additional transport projects linking to HS2

Location	Proposed schemes			
Euston	Crossrail 2 ¹			
Old Oak Common	New Overground station; Crossrail link to the West Coast Main Line; bus interchange; walking and cycling facilities ²			
South East	Heathrow spur (or extension to new hub airport) ³			
Birmingham Interchange	People-mover connection to Birmingham International; metro/ rapid transit to Coventry, Solihull, Warwickshire; bus/rapid transit interchange(s); direct heavy rail connection ⁴ ; possible need for capacity enhancements to M42 and other nearby roads			
Birmingham	People mover/other link between Curzon Street and New Street stations; Cross-city line platforms at Curzon Street; Midland Metro (tram) and Sprint (Bus Rapid Transit) connectivity; bus interchange/hub; Camp Hill Chords links to Tamworth/Nuneaton/South Birmingham; new pedestrian and cycle links ⁵			
North West	High-speed spur to Liverpool ⁶			
Manchester Airport	Enhancing road access; extension to Metrolink (tram) ⁷			
Manchester Piccadilly	Enhanced connectivity with the Metrolink; improved road access ⁸			
East Midlands	Tram links to Derby and Nottingham ⁹ ; road improvements			
Meadowhall	Extension to Supertram network/expansion of Sheaf Valley railway ¹⁰ ; bus rapid transit to South and West of Sheffield ¹¹ ; capacity enhancements to M1 slip roads and viaduct ¹²			
Leeds	Moving walkways from Leeds New Lane to Leeds City station ¹³ ; possibly new road and bus infrastructure			
Yorkshire	Preparing the regional rail network for HS2 by increasing capacity, reducing journey times, electrification etc. ¹⁴			

⁷³ The most expensive proposals are likely to be Crossrail 2, high-speed spurs to a national hub airport and Liverpool, and various other heavy-rail projects to link to HS2. The cost of these schemes alone could exceed £30 billion.

- 1 'Crossrail 2 consultation', TFL, http://www.tfl.gov.uk/corporate/ projectsandschemes/27405.aspx (accessed 18 July 2013)
- 2 'HS2 station to transform Old Oak Common', Transport for London, http://www.tfl.gov.uk/corporate/ media/newscentre/metro/28220.aspx (accessed 13 August 2013).
- Plans for the Heathrow spur have been deferred until the Davies Commission publishes its report on aviation capacity. At the time of writing it is not entirely clear whether the revised cost estimate for Phase 2 includes a spur to Heathrow (see Butcher, 2013).
- See West Midlands Rail Forum (2013: 13).
- 5 Ibid.
- 6 'Liverpool City Region: HS2 link vital, leaders say', The Business Desk (North-West), 3 June 2013.

- 7 See DfT (2013: 38).
- 8 Ibid: 37.
- 9 See, for example: 'We need tram link to reap benefits of HS2 – with maps and poll', Derby Telegraph, 29 January 2013.
- 10 'New Sheffield Supertram line in "transport revolution", Sheffield Star, 28 January 2013.
- 11 See DfT (2013: 51).
- 12 'South Yorks high speed train route: maps and details', Sheffield Star, 29 January 2013.
- 13 See DfT (2013: 11).
- 14 The Yorkshire Rail Network Study (Steer Davies Gleave, 2012), commissioned by Metro, SYPTE and Leeds City Region, provides a broad framework for the kind of expenditure that is envisaged but does not provide costings.

Such estimates are subject to a high degree of uncertainty, however. Detailed costings are unavailable for the proposed schemes, meaning the eventual budgets could be very different (and given the history of government transport projects, potentially much higher). It is also probable that some of the schemes will never be built for various reasons, including funding constraints. Other links might be built even if HS2 were cancelled. The rationale for some schemes, for example Crossrail 2, is far wider than facilitating connections with HS2, so it would be misleading to view the full costs as being a direct consequence of the high speed line.

Another complication is the possibility that some infrastructure will be part-funded by commercial organisations, thereby mitigating some of the cost to taxpayers. This is a particularly likely outcome for the links around Birmingham and Manchester airports. Similarly, some connections in the immediate vicinity of stations, such as the proposed 'people movers' to Birmingham New Street and Leeds City stations, may be funded from the HS2 budget.

Opportunity cost

Notwithstanding these caveats, the costs to the economy of schemes linking to HS2 are likely to go far beyond the direct burden on taxpayers. One reason is the effect on investment decisions. Given the political economy of the project discussed above, it is probable that schemes connected to HS2 will be prioritised over alternatives. In practice this means transport investment will not be allocated to maximise economic returns, but rather to bolster the viability of high-speed rail and favour the special interests involved in its development. Transport projects with high benefit-cost ratios will be crowded out by projects with lower benefit-cost ratios that link to HS2, even though the latter may represent poor value for money for taxpayers.

Numerous alternative infrastructure projects in the UK would have much higher returns than HS2 and proposed associated schemes. Indeed, the difference in probable returns is so great that the opportunity cost of building the line - and the links to it - is likely to be immense. As transport economist Stephen Glaister explains, 'The state of public finances suggests that each £1 dedicated to HS2 is £1 not available for something else.'⁷⁴

Table 2 provides indicative data on benefit-cost ratios for different types of transport scheme. It can be seen that returns from investment in the strategic road network are particularly high, whereas returns from investment in local public transport infrastructure tend to be relatively low. High-return projects are not restricted to the road network, however, and include proposals to increase capacity on the busy southern section of the West Coast Main Line (Atkins, 2012; NEF, 2013).

The following plausible scenario describes the problem. The basic HS2 scheme ends up costing £50 billion, but due to the well-known flaws in the business case, the benefits are only worth £30 billion. Distorted investment decisions mean a further £30 billion is spent on transport schemes linking to HS2 which deliver benefits of say £50 billion (many of these unrelated to the high-speed line).

^{74 &#}x27;HS2 high-speed rail plan offers insufficient return on investment', Guardian, 28 January 2013.

In total, schemes costing £80 billion have delivered benefits of £80 billion.⁷⁵ Had the same amount been spent on high-return transport schemes, however, the benefits could have exceeded £320 billion.⁷⁶ Alternatively, the budget could be used to cut taxes, which, under this scenario, would also have delivered higher benefits than investment in HS2 and related projects.⁷⁷

This analysis suggests that the opportunity cost of directing a high proportion of transport investment into HS2 and related schemes will far outweigh the direct cost of the project. This conclusion still holds even if the government's heavily criticised estimates of the benefits of HS2 are accepted.

The option of cutting taxes rather than building links to HS2 means that it is accurate to claim that these projects will add to the direct burden on taxpayers. Moreover, with institutional reform it would be possible for the alternative, high-return schemes to be funded without drawing on taxpayer funds. A policy of commercialisation and/or privatisation would enable viable transport infrastructure to be funded privately.⁷⁸ This would not apply to HS2 and most of the projects planned around it, however, as they fail the commercial test.⁷⁹

⁷⁵ This simple analysis ignores the negative economic impact of the taxation used to pay for the schemes, which adds significantly to the overall cost. It also ignores the questionable nature of many of the benefits claimed for public-transport schemes in particular.

⁷⁶ Assuming an average benefit-cost ratio of 4 or over (see Table 2). There are of course weaknesses in the cost-benefit methodology used by the government, so the figures should be considered as indicative. A discussion of these weaknesses is beyond the scope of this paper.

⁷⁷ Lower taxes will tend to increase economic output (see Minford and Wang, 2011); see also the discussion of deadweight losses in Harrison (2006).

⁷⁸ See, for example, Hibbs et al. (2006); Knipping and Wellings (2012); and Roth (2013).

⁷⁹ Revenues would be insufficient to cover the costs of construction and operation.

Table 2: Indicative benefit-cost ratios of transport projects⁸⁰

		Benefit-cost ratio
Eddington Report survey	Strategic roads	4.7
	Local roads	4.2
	Rail	2.8
	Local public transport	1.7
High Speed 2 (London to West Midlands)		1.4

Sources: Eddington (2006); Dodgson (2009: 11); HS2 Ltd (2012)

Regeneration subsidies

In addition to new transport links built to connect with HS2, the line is also likely to provide local authorities and regional development bodies with a rationale to undertake regeneration schemes around the new stations. Indeed, the political economy of the project suggests that there will be strong incentives for concentrated interests to promote such schemes, for example to provide high-status roles for officials and business opportunities for well-connected property developers, construction firms and so on. Regeneration schemes will also give local and national politicians opportunities to point to new shops, offices and housing as 'concrete evidence' that HS2 has generated growth.

In reality such projects are likely to be heavily funded by the taxpayer, as has been the experience with High Speed 1. Taxfunded regeneration tends to be a 'negative-sum game' since resources are appropriated from other areas and reallocated to the areas receiving the subsidies. Resources are lost through the wider

⁸⁰ For further evidence see DfT (2012).

⁸¹ There are already plans to create a new 'gateway' district adjacent to Manchester Piccadilly station, for example. See: ,Super train: the tunnel vision that delivers a rail revolution', *Manchester Evening News*, 29 January 2013.

economic costs of taxation and through the bureaucracies charged with implementing the schemes. At the same time, if regeneration is successful and the economy of the recipient area improves, nearby areas typically decline economically as poorer residents are displaced, either as a result of rising rents or the deliberate actions of local authorities.

The areas around most of the planned stations are brownfield sites, so redevelopment may involve relocating existing residents and businesses, as well as reclaiming land that may be polluted by previous uses. Examples such as North Greenwich (on the Jubilee Line Extension) and the Stratford Rail Lands (High Speed 1) suggest how expensive this might be for taxpayers (see, for example, Myddelton, 2007: 157). Moreover, the artificial scarcity of land due to planning controls appears to be more pronounced in London than in the cities of the Midlands and North, suggesting the incentives for private investment in schemes outside London may be lower, and the relative burden on taxpayers correspondingly higher. It should also be noted that such private investment will be heavily contingent on rigged land markets and special privileges. Development may only be viable because it is effectively banned elsewhere, including on desirable, low-cost greenfield sites. The wider diseconomies of forcing economic activity into high-density urban locations should also be considered (see Wellings, 2012), together with the disruptive effects of HS2 on existing development schemes that may genuinely be commercially viable.82

As with new transport links to HS2, it is highly problematic to estimate the likely cost of regeneration subsidies along the route, particularly at such an early stage. However, given the strong incentives for key actors to promote such projects, it would not be surprising if they added several billion pounds to the overall costs associated with the line. Furthermore, it seems likely that officials in towns and cities bypassed by HS2 will campaign vigorously for regeneration funding to compensate them for losing out. In return for such handouts, they may be prepared to drop their opposition to the line.

Conclusion

The political economy of High Speed 2 clearly has worrying implications for the likely final costs of the scheme. The disproportionate policy influence of concentrated special interest groups appears to have been instrumental in the decision to proceed with the project. And, as HS2 progresses, the incentive structures facing policymakers mean that concentrated special interests are likely to be 'bought off' at the expense of dispersed taxpayers.

This process helps explain the dramatic recent budget increase, which was partly due to increased tunnelling and other measures to 'buy off' local opposition.⁸³ Yet this may only be the beginning. The pressure to 'buy votes' with taxpayers' money will increase as the next general election approaches, particularly since a relatively small number of seats could have a decisive impact on the result. At the same time, local and regional interests are already busily campaigning for central government to fund numerous transport projects that will link up with HS2. Large regeneration subsidies will also be demanded.

Clearly it is misleading to ignore political risks, linking infrastructure and regeneration subsidies when considering the overall cost implications of the line. £80 billion plus would be a realistic estimate

of the cost of HS2 and these associated projects.84

This figure is dwarfed, however, by the long-term cost to the economy of misallocating transport investment to high-risk, low-return schemes instead of low-risk, high-return schemes. If the funds directed towards HS2 and related links were reallocated to projects with much higher and more robust benefit-cost ratios, the economic benefits would be an order of magnitude higher. Moreover, there would be little risk that the costs would exceed the benefits — a highly probable outcome for HS2 given the well-known flaws in its business case.

The incentives facing policymakers help explain why so many big government projects end up as financial failures, with final costs far higher than initially expected and benefits far lower (see Myddelton, 2007; Flyvbjerg, 2007). There is therefore a strong case for reducing the role of politics in the provision of new transport infrastructure.

A freed transport market would allow private investors rather than politicians to determine patterns of investment and would remove the malign influence of rent-seeking special interests from the decision-making process. The cancellation of High Speed 2 would be a welcome step towards a transport sector free of political control. New infrastructure could then be provided on a more economically rational basis.

⁸⁴ The £80 billion plus estimate includes the cost of the high-speed trains. Fare revenues could reduce the total burden on taxpayers, but there are reasons to be sceptical that they will make a significant contribution to construction costs (see Aizlewood and Wellings, 2011), particularly given the experience with High Speed 1 (see above) - and numerous public transport schemes that have failed even to cover their operating costs with fare receipts.

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