Select Committee on Economic Affairs

Corrected oral evidence: The economics of High Speed 2 – follow-up

Tuesday 19 February 2019

3.35 pm

Watch the meeting

Members present: Lord Forsyth of Drumlean (The Chairman); Lord Berkeley; Baroness Bowles of Berkhamsted; Lord Burns; Lord Darling of Roulanish; Baroness Harding of Winscombe; Lord Kerr of Kinlochard; Baroness Kingsmill; Lord Layard; Lord Sharkey; Lord Tugendhat; Lord Turnbull.

Evidence Session No. 3 Heard in Public Questions 37 - 48

Witnesses

I: Bridget Rosewell CBE, Founder, Volterra; Chris Stokes, Independent Rail Consultant.

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Examination of witnesses

Bridget Rosewell and Chris Stokes.

Q37 **The Chairman:** Mr Stokes and Ms Rosewell, welcome to the Economic Affairs Committee. I think you are familiar with the work which we have done in the past and which we are following up today. Perhaps I could start with the first question. I was slightly surprised when Sir Terry Morgan gave evidence to the Committee last month and said that nobody knows what the final cost of HS2 will be. How likely do you think it is that HS2 will be delivered within the department’s £56 billion budget?

**Bridget Rosewell:** Are either of us cost experts, Chris?

**Chris Stokes:** No, we are not.

**Bridget Rosewell:** I am not sure that I am competent to answer the question with any degree of reliability.

**The Chairman:** Except that in the report that you wrote in 2014 you made a number of comments on possible savings and advantages, so presumably you know something about the cost.

**Bridget Rosewell:** I know something about how it has been costed but, since then, scope elements have been changed. I think I know reasonably well what processes we need to have to make sure that costs remain under control. Time spent planning and doing the engineering in advance is not wasted. I recently saw the accusation that 10% of the budget had already been spent. If that is spent on proper planning, that is a good use of money. What goes wrong with projects is when scope changes happen late and when surprises happen with engineering, as can occur. But if you are in the right kind of ballpark, some things will go better than expected, even when some things go worse than expected. So I see no reason why it cannot stand within that budget.

**The Chairman:** Really? Mr Stokes.

**Chris Stokes:** I take the view—not as a cost expert, which I am certainly not, but following what has been said publicly both to this Committee and elsewhere—that there is probably close to zero chance of HS2 being built within the £56 billion ceiling unless there are changes of scope. There are obviously options for changes of scope: reducing the frequency, although I am not clear how much that will save apart from the direct saving of capital cost through needing less rolling stock; reducing speed, which might save capital costs in particular in relation to the tunnels; or, indeed, reducing the geographical scope of the system by, for example, curtailing it at Old Oak Common, at least initially, or, for example, by not building the Crewe to Manchester section, which, in terms of the number of trains that would use it, would be a relatively lightly used part of the network. All those changes will impact on the business case, of course, which in my view has always been fragile.

**The Chairman:** On the subject of the business case, you argued in your
2014 report, Ms Rosewell, that the method of assessment did not take account of the opportunities.

**Bridget Rosewell:** Indeed.

**The Chairman:** I find it quite difficult to see how you could argue that if you did not have a view on the cost, or am I just being silly?

**Bridget Rosewell:** You asked me a precise question about cost. I am relying on costing work that is done by the experts and the engineers in that field and then looking at what the benefits could be against that. My perspective has been for some while that, although the business case is built on the proposition that people save time and that time is valuable to them, that is not the right way we should think about the benefits of large investments. Possibly the most stable fact about people's use of transport is that they do not save time; they make more trips. Generally speaking, people spend about the same amount of time travelling now as they did 60 years ago; they just do it differently.

If we start with the question, "What is this investment intended to achieve?", in my view an investment of this scale and volume should be directed towards achieving a future that is different from the past. It will not work if you just say, "We know how many people will use it; they will save this much time and that will be the value", even if you put some bells and whistles around that. Instead, we should look at this by saying, "What are the opportunities that it makes possible? How plausible is it that those opportunities that are made possible by such an investment are going to be taken up?" We are then into the realms of the sort of thought experiments that we ought to undertake and the sort of conclusions that we might draw from them.

We could take as an example High Speed 1, which was, admittedly, a much smaller investment, but at least it exists—we have some idea of its use and we certainly know what it cost. As for the development opportunities that became possible around the stations on High Speed 1, we do not know how many jobs came to those locations just because of those stations, but we know what the capacity is and what development has taken place around the stations. If one can conclude that as little as 5% of those job opportunities were there only because of the railway, that pays for it. You can take net present value and the stream of earnings that would not otherwise have existed. With High Speed 1, Google is just beside King’s Cross; it might have gone to another country. It probably accounts for more than 5% of those jobs. It is about 5,000 jobs, from the total capacities that we looked at when I did that evaluation. High Speed 2 is about six times more expensive, so that means that we need to attract 30,000 jobs to this country that otherwise would not be attracted here, which is not a large number. That is the way that I begin to think about this.

**The Chairman:** I think you can assume that the Committee has read your report.
Bridget Rosewell: That is what I am trying to do to scale this. What is it that I need to believe in order for this thing to be worth doing?

The Chairman: I am just wondering about this, listening to Mr Stokes and looking at the press coverage and the commentary elsewhere, where it has been suggested that keeping within that £56 billion budget will require a change in the scope. One of the changes in the scope is to reduce the capacity, which would fly in the face of your analysis.

Bridget Rosewell: Yes, it would fly in the face of the analysis, if that is what you wish to do. But I do not think that you need to reduce the cost.

The Chairman: Because you think it can be—

Bridget Rosewell: Because I think it is worth doing. The assumptions under which it becomes worth doing are not that draconian.

The Chairman: So you are in the camp of those who say that it does not really matter what the cost is.

Bridget Rosewell: I am certainly not in that camp.

The Chairman: So which camp are you in?

Bridget Rosewell: I am in the camp that believes that you should obviously make the investment as efficiently, effectively and cost-effectively as possible—

The Chairman: Whatever it is.

Bridget Rosewell: But I think that that investment is itself worth making.

Lord Darling of Roulanish: I am sure that you would agree that it is always a good idea when you come up with a solution to know what problem you were trying to solve. This problem attempting to be solved seems to have changed from being one of lack of speed and time saved to one of capacity. Looked at from the perspective of capacity, it means that the trains do not have to run at a very high speed and you do not have to build tunnels capable of taking trains at a speed at which I understand they will never run. It also opens possibilities for the train going to places where there might be a considerable economic benefit because you can get to them at less cost. Is that a correct summation of what I think you said in your report?

Bridget Rosewell: Yes, I think that is right. Speed is not irrelevant; I do not want to say that it is just about capacity and not about speed.

Lord Darling of Roulanish: I am talking about very high speed as opposed to something running at 140 miles per hour.

Bridget Rosewell: Absolutely. I said at the beginning, back in 2008-09, that I did not see why we were privileging 400 kilometres an hour for the cost that it would imply.
Lord Darling of Roulanish: As an economist, I am sure that you also buy the argument that it helps to look at capacity other than just in the south-east of England, where there is undoubtedly a near-London problem in capacity now. With all this money to spend, would it not have made sense to look at whether you might start in the north of England rather than the south and, in particular, at what you might do around what is now called the Northern Powerhouse or other links in the north of England, from which you might derive more economic gain? There would certainly be faster journeys than you have at present, which are lamentably slow, and you would also be increasing capacity. There is already overcapacity on a lot of lines in the northern part of England.

Bridget Rosewell: I am not sure that these are alternatives in quite the way that you are presenting them. That is my trouble with “Is it HS2 or is it Northern Powerhouse Rail?”, because they integrate.

Lord Darling of Roulanish: You can only spend money once. If you have £57 billion, you cannot assume that there is another £57 billion to go and spend on something else. Government is always making choices about what it wants to do first or where it is going to prioritise. It was in that context that I put the question to you. In an ideal world, you would build railways everywhere. You could reach Thurso or Wick.

Bridget Rosewell: Well, maybe not as far as that. Leeds to Manchester is one part of that northern linkage, which is independent of anything around HS2. For that link to be effective, it must be able to link into the rest of the system and the rest of the system is still full. Without HS2, Northern Powerhouse Rail capacity numbers do not work, because it cannot link its trains to any of the rest of the system. To get Liverpool to Manchester Airport is also contingent on the northern end of HS2. I am not saying that we should not phase it or that phasing is not more effective—if you think about the capacity of the construction industry, there are arguments about phasing—but I am not sure that you can see these things as independent.

Lord Darling of Roulanish: I say this because the plans are going through just now to get HS2 to Birmingham. There is nothing near a final proposition to get it north of there. Before it reaches Newcastle, never mind Glasgow or Edinburgh, you may be talking about 30, 40 or 50 years. If you are in Manchester or Newcastle now and you want more development to come in from outside—the jobs that you were talking about—might it not be better to spend the money there where there is already a lack of capacity and rolling stock that is third rate, with some of it clapped out, rather than building something that might benefit a lack of capacity in the south-east of England but does nothing for the north.

Bridget Rosewell: If I have understood you correctly, there are three bits to what you are saying. There is the piece about phase 1 of HS2, where contracts are already out there. There is a plan; there is a Bill and there are contracts. To cancel that at this stage is one thing; saying that we are going to phase in phase 2 and Northern Powerhouse Rail in a different way—
Lord Darling of Roulanish: How do you mean “phase in a different way”?

Bridget Rosewell: Well, how you would integrate the elements of phase 2, High Speed 2, Northern Powerhouse Rail and the different building blocks of that integration, and how it works for the various cities. It has to work not just for Leeds-Manchester but for Liverpool and Sheffield. Sheffield is particularly keen on HS2 and so is Leeds. When I first looked at HS2, I started off being quite sceptical about it. I became convinced in part because of the enthusiasm and willingness of the various cities, particularly in the north and Birmingham, to exploit the opportunities that it developed for them. I am not getting any sense from those cities that they are less keen about having HS2, although they need the linkages between them as well. We need to think of it as one piece. Within that, there are phasing arguments, but I do not think that we can think of it as either/or.

Chris Stokes: I would go back to the start, which is that I regret that politicians of all three main parties were seduced by the idea of a high-speed link from the north and the Midlands to London and, effectively, civil servants were directed to make a case. In terms of investment appraisal, there was no proper evaluation of the alternatives; there was a political will to build the railway. I understand the support for it in the north, but, at one level, since this is a central government project, “Well, they would say that, wouldn’t they?” The key question—as was asked of Andy Burnham, the mayor of Manchester, on the Channel 4 programme last week—would be: if offered X billion pounds, ultimately what would they choose? If they get High Speed 2 without it impacting directly on them financially and they can piggyback on connecting links on top of it, I would say yes to that in the north as well. However, there is an opportunity cost about this project. For example, Northern Powerhouse Rail will not be the scheme it might be if we were not spending all this money on High Speed 2.

The linkage between the two is not very strong, because Northern Powerhouse Rail is really about east-west access; obviously, HS2 is about north-south access. The only linkage that I have tripped over is the one mentioned by Bridget; that is, “Well, this way, you could get Liverpool to Manchester Airport”. That is one example, but that of itself would require significant expenditure on new infrastructure to join up with HS2. Furthermore, those trains would go into the HS2 platforms at Manchester and would not then be able to go to Leeds. The linkage between the two concepts is not tremendously strong. I think that the economic benefits to the north of going first for Northern Powerhouse Rail, whatever exactly it means, are much greater and would not be diluted towards London, whereas the bulk of academic economists who have looked at this say that HS2 is likely to benefit London rather more than the Midlands and the north. The financial benefits of the construction of Northern Powerhouse Rail and its impact would all be in the north, because that would be where it was built, whereas a major part of the construction benefits of HS2, particularly if it is built through to Euston, would be in
London and the south-east, because that is where the expensive and difficult parts of the infrastructure are. You could say that that part of the country is overheated and the north is not.

To pre-empt some of the questions that you have suggested the Committee will want to discuss, I think that the priorities should be reversed and Northern Powerhouse Rail should go first. In terms of the rail network as a whole, I am pretty clear that providing additional capacity on the north-south axis paralleling the west coast main line would not be the priority for improving capacity on the rail network. Other things that are more urgent will now not happen because this is the real world and we are not going to have multiple £56 billion projects running at the same time.

Lord Darling of Roulanish: Mr Stokes has answered all the questions I would have asked.

Q39 Lord Kerr of Kinlochard: To come back one last time to the question of speed, you said, Mr Stokes, that you thought there was zero probability of £56 billion being the eventual total cost. You said you thought that reducing the number of trains run down the line would not have a huge cost saving—it would be only the capital cost of the rolling stock. I take it that the saving you would be looking at to try to bring the thing back inside budget—if it goes ahead—would be on speed. What does it do to the business case if the trains run only as fast as the TGV in France or HS1 trains, or at a lower speed than those? Why does it have to be engineered to be able to run faster than the TGV and HS1?

Chris Stokes: With its relatively short distances, building something in this country that asserts to be the fastest high speed railway in the world is, frankly, close to ludicrous. It might be appropriate between Shanghai and Beijing, because the distances there are very long. To do it between London, Birmingham and Manchester is almost an engineer’s pipe dream. It is silly. To be fair, I think the impact on the business case is not all one-way. It is quite complicated, and I hope this work will be done with a degree of rigour. One of the things on which I agree with Bridget is the fact that the business case’s being so built on the value of time, which in turn is built on an extraordinarily high proportion of business travel, in turn built on a view that that time is wasted, is, I think, nonsense. This could only be justified on wider economic benefits. My view is that one would want to look at the economic benefits of doing different things—including, in particular, Northern Powerhouse Rail.

To get back to your question, reducing speed would reduce the operating costs quite significantly. The energy costs rise very fast as speed increases; the maintenance costs would increase. I understand that, for example, at the sort of speeds that HS2 is being designed for, you cannot have ballasted track because it can fly up and hit trains. Reducing the speed will reduce costs. It will also reduce revenue. I am unclear where the balance would be, but I think that reducing the speed would probably be a good thing to do anyway. Reducing the frequency would reduce costs—capital costs of the rolling stock and the associated maintenance
and operating costs. It would also reduce revenue. Again, I am unclear where the balance would be, but I suspect, given how far this project has gone in terms of its design, that both of those are not going to plug the gap between whatever X billion is and £56 billion.

In my view, to achieve that—as I think Sir Terry Morgan got close to saying to the Committee—you would need to de-scope the geography. This is slightly anecdotal, but there is an awful warning. California has a high-speed rail project designed around going from Los Angeles to San Francisco in four hours or whatever. The new governor of California has taken an axe to it and it will now go only between Merced—wherever that is—and Bakersfield. Merced is a town of 83,000 people. This will be like HS2 ending up going only between Old Oak Common and Lichfield without connecting to anywhere else. It is a slightly awful warning and, rather like HS2, an awful lot of sunk costs have already gone into the California network. By the way, I think Donald Trump hates California because it is Democrat, and there is $5 billion worth of federal money, so they will no doubt be worried about that.

Lord Kerr of Kinlochard: Thank you very much. Just to make sure I understand, how much would you have to reduce the speed to be able to lay a ballast track rather than a slab track?

Chris Stokes: I do not claim to be an expert but I think it is down to something like 320 kilometres per hour, which is sort of TGV speeds.

Bridget Rosewell: Standard TGV speeds. They certainly do not have slab track on all TGV lines, so it must be possible to run ballasted track—even if neither of us are engineers.

Chris Stokes: I see no reason to go faster than French TGVs. I think it is silly.

Lord Turnbull: I had a conversation with Andrew Adonis, the politician who got planning for trains going 400 kilometres per hour. He said that the trains are not going to run at 400 kilometres per hour; they will probably run at 300 kilometres an hour. But we want to build this and future-proof it so that, if developments emerge that new super-duper trains come along, we can run them on it. In other words, the issue is not about speed, because that will always be about 300 kilometres per hour—it was always planned to be so. It is about how wide you bore the tunnels to accommodate it. We are spending all this money on the possible hope that at some stage, many decades hence, we might raise the speed from 300 to 400. I think that is a pretty flaky basis for planning. To build for 300 and operate at 300 is the way I would put it. Rather than saying we are trying to reduce the speed, we are trying to reduce the capital costs of future-proofing.

Bridget Rosewell: Well, I am an economist so of course I want to agree with you that we should build for the appropriate length of time, but this kind of underlying infrastructure lasts an awfully long time, so the concept of future-proofing seems to me to be perfectly sensible. My hero
in this respect is Bazalgette, who built the sewers that served London for 150 years. The Thames Tideway Scheme is finally going to make them more redundant, but he—

**The Chairman:** So why not 600, then? Why 400?

**Bridget Rosewell:** Because you have to draw a line somewhere, and it is widely thought that we will end up with trains capable of going at 400. I am not saying that we should definitely do that, but I am trying to put a counter to the idea that we should never think about the future.

**Lord Turnbull:** If it is going to be another century before you expand it, then this is a great luxury. The M25 is a better example, where building for three lanes turned out to be a mistake; within 20 years it is going to four lanes. But I think this extra margin, which is not intended to be used straight away, is almost certainly a luxury.

**Chris Stokes:** If we magically produce these trains that can go 400 kilometres per hour, the journey time saved by having accelerated up to that speed is a matter of—I do not know—two or three minutes between London and Birmingham. It seems to me implausible that we could ever justify that. Whatever magic trains you have, the energy consumption to get to that speed will be higher.

**The Chairman:** Do you think that the choice of the speed—you were a bit rude about politicians earlier—was all about having some prestigious project, and that everything followed from that?

**Bridget Rosewell:** I do not think we could possibly respond to that, but I certainly think that—

**The Chairman:** You do not seem willing to respond to any questions that might be critical of what is being proposed.

**Bridget Rosewell:** I am definitely critical of the assumption, and there were engineers working on the project back when it was being designed who were then complaining that the privileging of it having to be 400 kilometres an hour was constraining their ability to plan sensibly for the line of route. That was to have the top priority and everything else had to fill in underneath it.

**The Chairman:** My question was: was that about having a prestige project because it was the fastest train in the world?

**Chris Stokes:** My belief, though I do not know this for certain, is that that particular decision should be blamed not on the politicians, but on the engineers. They were given the opportunity to build the best high-speed railway in the world and they were not reined in.

**The Chairman:** If we can blame the engineers, that is an advance.

**Lord Layard:** Could we come on to Old Oak Common? As you know, Sir
Terry Morgan told us that he thought that HS2 should terminate initially at Old Oak Common. Could you comment on the costs and benefits of something at Old Oak Common compared to going on to Euston? We have been told of an estimate by Michael Byng that the cost of going from Old Oak Common to Euston will be £8 billion. We have also been told that the estimate—the only one that has been given to us—of the benefits of going from Old Oak Common to Euston, an Atkins estimate, is £3.8 billion, which most people think is an exaggeration because of the advantages of being on Crossrail. Do you agree that there is a strong case, at least in phases 1 and 2a, for stopping at Old Oak Common? I know that the other issue is the platform capacity there, but we recently had an interesting note from Jonathan Roberts arguing that there is platform capacity there for phases 1 and 2a. Could you comment on the cost and benefits of stopping at Old Oak Common?

**Chris Stokes:** My judgment is that Old Oak Common is probably capable of dealing with the level train service in phases 1 and 2a. By the way, lest it be thought that I am universally critical of the project, I think phase 2a is very important; if phase 1 is built, I think it is essential that phase 2a is built, for a variety of reasons. I do not know enough about the revenue projections to take a view on the revenue impact of terminating phases 1 and 2a at Old Oak Common. With hindsight, Euston is an unfortunate choice for the terminus, both because in engineering terms it is incredibly complex and difficult and because of the level of disruption to the existing service; Euston station will be shut for the next two Bank Holiday weekends, which is HS2-related. This is a trivial point but I wanted to buy a sandwich at one of the sandwich bars at Euston when I came through there today but I discovered that it is now shut because it is going to be demolished. My gut reaction is that Old Oak Common would be the right place for phases 1 and 2a, and that would allow an opportunity to, frankly, review more radically whether Euston was the right place to terminate the service in any case. I know that Transport for London said that Euston’s Underground lines cannot cope with the full projected phase 2 volumes. I know the department disputes that, but TfL has a very strong argument. Of course it is looking at Crossrail 2 but that, like so many other schemes in other parts of the network, is a lot of extra capital expenditure piggybacked on HS2. So even if £56 billion is the price of HS2, by the time you have added all the bells and whistles you have doubled it. The simple answer is: yes, I think it should probably terminate at Old Oak Common to start with.

**Bridget Rosewell:** I am still agnostic about this. When I first started looking at this, I thought that we should begin with a railway that started at the edge of Birmingham and went north to Manchester Airport and south to Old Oak Common, while the cities themselves sorted out the bits that they wanted to go into their centres and had time to think about that. Yes, we should do phase 1 to Old Oak Common, get some trains running, see how people use them and see what the interchange actually looks like in practice when people use it. This is not just about moving trains; it is about the people who are going to use them. The new chief executive of Network Rail is very keen that we put passengers first. We
do not really know how passengers will make interchange. The concern about Old Oak Common has been that the Crossrail trains will fill up very quickly, the interchange will not be able to work effectively and we will need to come into the centre of the city, but it would need a very complicated piece of engineering to get there. I absolutely agree with Chris about the difficulties of Euston and am still very worried about how that will work for the next decade. We should do anything we can to simplify that, such as phasing it a bit more slowly, but we have to remember that if you do that and simply extend the period of dislocation, you have to think about how that works for passengers too. However, I am very comfortable with starting by not going to Euston.

Lord Tugendhat: On the question about Old Oak Common, surely a journey from Birmingham, let alone from Manchester, to Old Oak Common is very different from the journey to Euston. The thing about people coming from Birmingham—and even more, I guess, from Manchester—is that, first, they want to come to central London and do not want to go to Old Oak Common and, secondly, once you get to Euston, your accessibility on the Underground, the buses and so on around the centre of London is infinitely greater than from Old Oak Common. One of the additional advantages of coming to Euston is that it is quite convenient for catching the train from St Pancras. It is an advantage not only from the point of view of the passengers but in terms of encouraging people to go by rail rather than flying and reducing the demand from domestic flights into Heathrow.

Bridget Rosewell: I agree with everything that you say, but it is a question of cost and practicality and the speed with which you therefore plan to do that. When a new railway opens, it will not be at full capacity on day one. Its demand patterns will build up over time, and during that period you can be getting the most sensible route into the centre of London—remembering that at the beginning you will be able to change on to Crossrail and go on to a variety of places in central London with one change, so you will be accessing the Underground network at Old Oak Common. If you could not do that, that would be a real problem, but you will be able to.

Chris Stokes: Obviously, ideally one would have both. I know that HS2 projects that roughly 30% of passengers will use Old Oak Common and 70% will use Euston, but a lot of the 70% will not find Old Oak Common very different from Euston in terms of accessibility. A minority of them will find it much less convenient, and therefore only going to Old Oak Common will reduce the revenue. If Old Oak Common is the terminus, it needs to have some marketing so that it is not perceived in the north of England and the Midlands as Wormwood Scrubs, which is what it is close to.

Bridget Rosewell: Clapham Junction is called Clapham Junction because it is actually in Battersea. Battersea was not posh enough, so the name was changed.
and not being able to understand exactly what it is, and I think I share your concerns, while you, Ms Rosewell, talked about the problems of congestion in the north—Leeds, Sheffield, Manchester and things like that. Would you agree that we are in danger of getting into a bit of a muddle between what is HS1, HS2 and HS3 and what is an essential part of improving the lines that generally go across but also to some extent go north-south, in the area between Liverpool and Hull or wherever? From the traffic forecast that was in the evidence from one of you, it looks as if commuter traffic is increasing long-distance but that long-distance intercity is not. I think that is where there has been a change over the last few years. Should we not be looking at Birmingham to London as a long-distance commute on HS2, or something, and at ways in which the rail congestion between Liverpool, Manchester, Manchester Airport, Leeds, Sheffield and other places there can be improved, certainly by longer trains and possibly by faster trains with more capacity, and it does not really matter whether it is called HS3 or Northern Powerhouse? The key is that it is a commuting service around those very important cities. Does that make sense?

**Bridget Rosewell:** I agree that we need an effective commuting service for all our major cities; without that it is very hard. Trains are really good at delivering large volumes of people with minimum space and the most effective speed and delivery. Most of our big regional cities outside London do not have sufficient commuter networks. The question is: what is the best way to supply those and to what extent is the existing system capable of being upgraded to do that? You need a bit of both: the fast piece in between but also some of the closer-in commuter networks, which can quite often use capacity that is liberated by putting in additional stuff elsewhere.

**Lord Berkeley:** You do not need Manchester to London for that commuting, though, do you?

**Bridget Rosewell:** You do not need Manchester to London for the commuting, but you may well need the routes that are currently used for Manchester to London to be able to use more Stockport services, for example, which cannot currently be run because that capacity is used for the fast trains. There has certainly been a hiccup in the long-distance demand, but it is not clear to me that that is a permanent shift—it is not a strong blip downwards. Although the growth has flattened somewhat, I suspect that if you look at, say, what Virgin has achieved on the west coast, there has still been some considerable growth as it has improved the service.

**Chris Stokes:** If I could play back to Lord Berkeley what you said—and I think what Bridget said as well—there needs to be a coherent plan for developing the rail network in the north, which may involve some new stretches of line, upgrading existing lines, or some combination of the two. That would produce a much better bang for the north’s buck than HS2.
I must take issue with one thing that Bridget said, which is the suggestion, which I think is a canard, that HS2 will free up commuting capacity into Leeds or Manchester. That simply is not true. If you take the morning peak as an example, there are two trains that arrive in Manchester before 9 am—only two trains during the morning peak. You might say, “Oh well, that is at least two alternative train paths you could operate”. However, one of those trains goes via Stoke and Macclesfield, and is not full of people who left Euston at half past six in the morning but full of people from Stoke and Macclesfield, while the other train goes via Crewe and Wilmslow and is similarly full of people from Crewe to Wilmslow. So those trains would have to run anyway, the position with Leeds is exactly the same, and the amount of additional train path capacity that HS2 brings to the northern cities is pretty much zero.

**Lord Berkeley:** I think that is true. The other thing, which I hope you will agree with, is that one of the problems with the current commuter services in the north is that they are very short trains. We have 12-car trains all the way round London, and it is normal. I know there would be problems with platform lengths and things like that, but surely that is another way of getting more capacity on to a crowded network as well as building some more track and maybe even the odd tunnel.

**Chris Stokes:** Absolutely. Although they have not delivered it yet, both the TransPennine Express and the Northern franchises have as a franchise commitment providing additional rolling stock simply to run longer trains, which should be the first major step. However, in contrast to HS2, that will happen later this year and that is a cost-effective step; it is not costing £56 billion.

**Q42 Lord Tugendhat:** Do you agree with the Committee’s 2015 report that the main beneficiaries of overcrowding relief from HS2 will be London commuters?

**Chris Stokes:** On one line only—the Euston line. In terms of the morning peak, Euston is the sixth busiest terminus in London, and in terms of overcrowding it is the eighth-worst overcrowded terminus in London, which suggests that it is not necessarily a priority. That takes us back to the question of where we start this from. The main growth on that route is at Milton Keynes, and there are things that could be done much more quickly to increase capacity at Milton Keynes. For example, six Virgin trains in the evening peak stop at Milton Keynes but do not take passengers from Euston to Milton Keynes. These trains are only about 50% full because of the fare structure that applies—they are peak fares—and they stop at Milton Keynes to pick up only. In terms of other routes, like London to Peterborough and London to Reading, that is pretty inexplicable; it is the only route to which it applies. But, at a stroke, the capacity for commuters to Milton Keynes could be significantly increased—frankly, tomorrow—at no cost. It is a very expensive way of dealing with the Milton Keynes-Euston commuter peak.

**Bridget Rosewell:** That is a very specific element of this, and there are bigger pictures. There is a difference between identifying places where
there are already constraints, and then if you can remove those constraints by whatever means, that is already a benefit. In the north, where commuting is largely by car, you need to make a bigger shift and it will take longer. But you are investing for the future to be different from the past, so you will benefit people who are not commuting at the moment or who are commuting by different routes. That analysis applies to the people currently commuting by rail, not to the people you wish to encourage to commute by rail, whose benefits you are not identifying.

**Chris Stokes:** I agree with that, but I would say again that HS2 does not provide commuter benefits in the north.

**Bridget Rosewell:** All I am saying is that perhaps it is not the most relevant question in this context.

**Lord Tugendhat:** Is it correct that the forecasts for business travellers are now some 15 to 20 years out of date?

**Chris Stokes:** I do not know.

**Bridget Rosewell:** I do not know. One thing is certainly the case, which you may be referring to and which comes back to the question of time savings. While I do not think the numbers are necessarily out of date, the way we think about the value of time for business travellers has got very confused because of the proposition that they would otherwise be working and now they are sitting on the train doing nothing, whereas now, as we all know, you sit on the train doing your email or reading, or whatever it is.

**The Chairman:** When you produced your report in 2014—was it?

**Bridget Rosewell:** Pass. I do not know what year it was.

**The Chairman:** Was that based on those out-of-date figures?

**Bridget Rosewell:** Almost certainly, yes.

**The Chairman:** Okay. Baroness Kingsmill, you have been very patient.

**Baroness Kingsmill:** I have a very simple question, to which there is probably the simple answer that it just is not possible. I had occasion at the end of last year to travel all over Europe in double-decker trains. If we are talking about capacity, is that an impossibility?

**Chris Stokes:** Close to, I think, because we have a very old railway system and we did not engineer it for the future.

**Bridget Rosewell:** Tunnels and bridges.

**Baroness Kingsmill:** I was thinking, why could we not have higher bridges and tunnels—future-proofing?

**Chris Stokes:** The cost of achieving it would be astronomical.
**Bridget Rosewell:** Under the standards to which we built our railways, although the bogies are the same distance apart as on the continent, the gap between the tracks is not; they have wider ones, so they can generally have wider trains. The standard is different. When we put in our tunnels and bridges, they were all lower and smaller than those that were done later. If you have a pretty flat area—on the east coast, for example—you might be able to put in some double-deckers, but generally speaking the cost of doing so would have to include the re-engineering of most of the road system. It would not be easy.

**Baroness Kingsmill:** That is interesting.

**Q44 Baroness Bowles of Berkhamsted:** I am not sure I have a great deal to say, other than going back to HS2 and the Northern Powerhouse Rail projects. You have said quite a lot about those already. Which one would be the better bet for generating economic growth, or is that a silly question? From your previous answers, there is a feeling that you cannot have one without the other.

**Chris Stokes:** I would say that investing in the north on the northern network would produce a better result and do something to reduce the north-south divide, whereas it is probable that HS2 would increase the north-south divide, and that work on the northern network would potentially produce better results because of what we have collectively talked about. There is also the economic term “agglomeration benefits”—I think Bridget is much more able to talk about that than I am—which would mean that the towns and cities in the north got broader economic benefits because of the close linkages. I would go for the north without any question.

**Bridget Rosewell:** I absolutely support the concept of agglomeration benefits and have argued for them intensively over the years. There are programmes currently being put in place to improve the connectivity between the core elements of the north, but without those linkages into the rest of the network, which would include HS2—for Liverpool and Sheffield in particular—I do not think we would get the best linkages between all those northern cities. I think we should view the system as a whole and we need to think about it as a whole. We can then think about which elements we want to do first and which are the cheapest to do, but you will not recoup all the benefits until you link all the pieces of the jigsaw together.

**Baroness Bowles of Berkhamsted:** What is the risk that we might end up with Northern Powerhouse Rail and Euston to Birmingham but not get them joined up?

**Bridget Rosewell:** That would be a terrible risk. If we do not join them all up, that would be the worst of all worlds. It particularly should not go to Birmingham and then just stop. I agree that if you go to Birmingham you need to go to Crewe especially. The people of Leeds would then be disadvantaged, because although they would be able to get to Manchester they would not be able to get to Birmingham, which would be
appalling linkage. People in Sheffield would be equally disadvantaged. You have to think about not just Leeds-Manchester but Sheffield-Liverpool, never mind up to Newcastle.

**Baroness Bowles of Berkhamsted:** But the order in which we are building it means that there would be a problem if we suddenly ran out of money.

**Bridget Rosewell:** You might say, “I wish we weren’t starting from here”, with the work that has been done. Economists have a concept called “sunk cost”, which you should ignore when you are thinking forward. None the less, if we were now to stop the bit that we have already got the furthest forward, which is the first section, I think it would be very difficult to get the rest of it done.

**The Chairman:** On your agglomeration benefits, I was quite struck by something that John Armitt wrote in the *Sunday Telegraph* in July last year. He said, “this would mean the UK’s cities outside London receiving a £43 billion boost in funding up to 2040, on top of current spending … in addition to investment in Northern Powerhouse Rail and Crossrail”. He is basically making the point that your agglomeration benefits also carry a very large price tag. I am very conscious that we have been discussing a menu without prices here; we have to do HS2 and the Northern Powerhouse and there will be all these benefits, and then John Armitt says that there is another £43 billion on top of that. One wonders just how realistic it is to find those kinds of resources. I know that you are going to say that you do not do pricing, but surely in terms of working priorities this is very important.

**Bridget Rosewell:** I think the number that John was talking about is the estimate that we have used in the national infrastructure assessment for some of the improvements to intracity transport that we have been proposing alongside the improvements in intercity that HS2 generates. I think that is what the number refers to.

**The Chairman:** Does it refer to your agglomeration benefits or not?

**Bridget Rosewell:** That would certainly help to support those. The question is whether there is a payback. Are these sums of money likely to generate benefits over time?

**The Chairman:** That is not my question. My question is: how much we are letting ourselves in for here in terms of expenditure? Do you accept that this £43 billion is on top?

**Bridget Rosewell:** Yes, it is on top. But I will also say that, as I think someone has already said, these are 30-year or 40-year programmes, and in the infrastructure assessment that is the forward period over which we look, to which the number refers. If you spread out these numbers over that 30-year or 40-year programme and compare them to, say, what we spend on welfare or the national health, that scales these numbers a little more effectively.
**Lord Turnbull:** I was not on the Committee when it looked at HS2 the first time round. I take a more charitable view of the benefits of the project. I did not read the Volterra paper of 2014-15 at the time, and when I did I thought, “Yippee. There is someone finally who understands what this is about”. It is not about time. You said it was about capacity but I would say that it is about development.

**Bridget Rosewell:** It is about opportunity.

**Lord Turnbull:** It is about the ability of people to live in one place and to work in another, or the ability of an employer to expand the area over which they can recruit. All of economic history and Victorian literature tell you that this is how things work. *Middlemarch* is all about driving a train through somewhere and grabbing the land beside it. Consider the Metropolitan line: the whole of north-west London is based on railway development. The whole of south London, where I live, is all based on railway development. What I think we are prisoners of is this figure of £56 billion plus these benefits. What I think will happen in the end is that we will end up with something that costs a lot more than £56 billion, but if you calculate the benefits on the basis of the development that it creates then you will find that the benefits comfortably exceed the costs. At the moment it may all look a bit marginal, but we are using a really poor measure of both costs and benefits.

**Bridget Rosewell:** We are certainly using a poor measure of the benefits; thank you, I absolutely agree with that. That comes back to my point about looking at the impact of High Speed 1. At the time everyone thought, “It shouldn’t be as expensive as this”, but it was a £10 billion project. You do not need much additional development to make it worthwhile over the long period during which these things continue to be of benefit. That for me is the key point.

**Lord Turnbull:** The whole benefit of Stratford—starting from the Olympics and now what is following on from them—is entirely railway-driven. The Olympics would never have come to Stratford but for the fact that HS2 was going through it. I am confident that, if you look at this with a better cost-benefit analysis, or look at what it does to land values—it is simply capitalising the gain from transferring the use of something as farmland to some other use—I think you will get a much larger picture of benefits.

**Bridget Rosewell:** One thing that I would like to be able to do is for each station on the railway to be developed with the local authority—with developers—so that you are looking at saying, “If this thing stops, this is the kind of development; these are the opportunities you are going to put in place”. Birmingham is really working hard on that. Leeds is working hard on that.

**Lord Turnbull:** If you look at what is going in London, property developers—from British Land, of which I was once a director—go along the route and look at the opportunities all the way along, from Shoreditch to King’s Cross-St Pancras, Euston, Paddington and Ealing. They are
finding the opportunities that have been opened up. Finally, I completely disagree with Lord Tugendhat’s view that people want to get to Euston because it is central London. There is no such thing as central London; it is not a point on a map. Central London is a mixture of venues, or areas, such as Canary Wharf, the City, mid-City, the West End, Whitehall, Westminster, Paddington and Heathrow. Crossrail gets you better connected to most of those than the existing system at Euston.

**Chris Stokes:** I accept the linkage with development, although I think the position with HS1 is perhaps a bit more mixed. Ebbsfleet is still not yet developed. Logically, one would expect that it would have been. The King’s Cross lands might have been developed anyway because of where they are. But I go back to whether, if you have £56 billion that you want to use to generate redevelopment, the starting point should be where this is best applied, rather than starting with the scheme and backfilling the justification for saying, “And now the stations will be developed”.

**Lord Berkeley:** Having worked on HS1 and the Channel Tunnel, I know that both Ebbsfleet and Ashford were seen as major growth points, and we fought very hard to get the Ashford station in in the middle of Ashford. Nothing has happened in either of those places at all.

**Baroness Harding of Winscombe:** Just to take you back, I was struck by your comment that initially you were very sceptical about HS2, but one of the things that had changed your view was the northern cities and their excitement. I should declare my bias, which is that I ran a business—TalkTalk—split between London and Manchester for seven years. We never had trouble with transport between London and Manchester, and yet we simply could not recruit people who did not live in Manchester from the north, because the transport links east-west in the north were so difficult. As a single employer, I would start with a hypothesis that if I, as that northern city, had to choose, I would choose east-west, not north-south. I wonder whether you think I am wrong, and what evidence we have that those northern cities are proportionally more enthusiastic about HS2 than they are about Northern Powerhouse Rail, or the other way around.

**Bridget Rosewell:** The feedback that I am getting from people in northern cities is that they are committed to both. This is the perspective, particularly since they are worried that, as you try to develop out that east-west piece, how it links into the existing system is very difficult without some of that additional investment. That is what they are saying.

**Lord Burns:** We seem to be moving towards putting less emphasis on speed and more on capacity expansion, in addition to which we also seem to be thinking that slow speeds are more realistic. I have a rather innocent question: does that suggest that we should be looking again at the number of stations on that route and at the development value of those stations? I am struck by the extent to which much of the opposition to HS2 is from people who live where the line will be but who seem to think that they will not get any benefit from it because there are not going to be any stations there. Does this calculation change at all if you
start thinking in terms of expansion of capacity rather than of speed? Or would those calculations look much as they do already in terms of not having much in the way of stations on the route?

**Chris Stokes:** It is a slightly technical argument perhaps, but there is a relationship between frequency and stations. With the aspiration to have 18 trains an hour, it is difficult to have intermediate stations other than Birmingham Interchange. At Birmingham Interchange, some of the trains will whizz by and then go off to Manchester or Leeds, and the trains that are stopping there might go to Birmingham, so that works. But if you wanted a station at, let us say, Aylesbury or near Northampton or whatever, the existence of the station would technically greatly reduce the capacity of the system unless all the trains stopped there. This is what happens at Old Oak Common, hence it has the capacity to be the terminus for phases 1 and 2a. Old Oak Common has parallel platforms, but all the trains will stop there. If some of the trains ran through to Euston non-stop—

**Lord Burns:** I was thinking of them all stopping there.

**Chris Stokes:** Yes, you could in principle have additional intermediate stations, but on the Birmingham to London part of the route at least, that would imply that all the trains stopped at those additional intermediate stations.

**Bridget Rosewell:** It depends on how much you are going to slow it down by, because you still have the acceleration time. In high-speed terms, London to Birmingham is not that far. Birmingham to Manchester is a little bit further, so you would need to be careful how many intermediate stops you put in, but, yes, I think that is absolutely right. It is exactly what we should be thinking about.

Q48 **Lord Lamont of Lerwick:** I will switch tack slightly. We have had an awful lot of questioning about the development case. However, going back to the business case that some people have made based on time saved, I am interested in the costing of the time saved. As I understand it, in the 2013 business case, the time saved for business travellers was valued at about £31.96 per hour. Has that figure been subject to a lot of revision? Is it your opinion that this takes account of modern technology enough and of the ability of people to work on trains?

**Bridget Rosewell:** No, basically. It does not take into account what people use the time for. Quite a bit of work has been done on this. The amount of time saved compared to any other use you might put it to is just a misguided way of thinking about the value of any particular trip. A shorter trip generally means that you will be willing to make more of them or that you will be willing to go to places that you would not otherwise go, or go to a job that you might not otherwise go to. It improves many things along those dimensions. I do not find the way we measure time-saving helpful at all.

**Lord Lamont of Lerwick:** Is there an alternative way of measuring it?
**Bridget Rosewell:** That is why I come back to the development capacity and the opportunities. The business side of this is what opportunities will be opened up by this new capacity. If nothing else is changing, the economy is stable, and you know exactly how many jobs there are and where they will be, you can say that, other things being equal, there is a time saving. But other things are not equal, and with a long-term change of this nature, other things are particularly not equal. You have to think about all the other things that will change and how that future is likely to be or could be different.

**Chris Stokes:** I agree with Bridget that the current methodology that values business time at £31 per minute or whatever is outdated and unhelpful.

**Lord Sharkey:** The economic case still seems entirely dependent on the assumptions made about the percentage of travellers who are travelling on business. Not only is the costing probably completely artificial, but there also appear to be almost random variations by economic case about the percentage of businessmen who will be on these trains. Do you agree?

**Chris Stokes:** Yes.

**Bridget Rosewell:** Yes. I did not do the numbers and I do not understand it.

**Chris Stokes:** Passenger Focus does surveys, which I think include the reasons for travel, which is why it suggests that the percentage used in the latest version of the business case, which is some years old now, is probably wrong and suspiciously high.

**Bridget Rosewell:** It comes back to the problem of using what happens today to say how many businesspeople will use this particular train. To do that for a train that will not be delivered for 20 years, by which time the economy and everything will have moved on, seems to be looking at it from the wrong way up.

**Lord Sharkey:** That was the point of my question, because it seems that in the case of business it is absurd to build an economic case based on the figures that we do not believe.

**Bridget Rosewell:** It has grown out of a historic view of why we undertake transport investments which was not really about large-scale investment and which was based on the assumption that everything else was unchanged—the economy and the transport system were therefore independent of one another, which was a fundamental assumption of the modelling approaches. The Department for Transport is now moving away from this, putting together cases that look first at some of those economic opportunities, but it takes quite a long while for the modelling people to catch up.

**The Chairman:** On that plea for higher speed, we can conclude this session. Thank you very much indeed for answering our questions so
well.