

Public Accounts Committee

Oral evidence: Crossrail, HC 1062

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Members present: Mr Richard Bacon (Chair), Stephen Barclay, Guto Bebb, Jackie Doyle-Price, Chris Heaton-Harris, Meg Hillier, Austin Mitchell, Nick Smith, Justin Tomlinson

Amyas Morse, Comptroller and Auditor General, Gabrielle Cohen, Assistant Auditor General, and Geraldine Barker, Director, National Audit Office, and Marius Gallaher, Alternate Treasury Officer of Accounts, were in attendance.

Witnesses: Philip Rutnam, Permanent Secretary, Department for Transport, Sir Peter Hendy, Commissioner, Transport for London, and Andrew Wolstenholme, Chief Executive, Crossrail Ltd, Department for Transport, gave evidence.

Q1 Chair: Good afternoon and welcome to this meeting of the Public Accounts Committee where we are examining the National Audit Office Report on Crossrail, which this Committee visited quite recently. We are joined by the Permanent Secretary of the Department for Transport, Mr Philip Rutnam; the Commissioner of Transport for London, Sir Peter Hendy; and the Chief Executive of Crossrail, Mr Andrew Wolstenholme. You are all very welcome.

May I start with you, Mr Rutnam? The Crossrail project seems to be going reasonably well, and the Report is a reasonably favourable one, probably not least because it took you a long time to get the project off the ground and so you were forced to do a lot of work to start substantiating the case. However, Crossrail still has a relatively low benefit-cost ratio compared with many other projects that we have seen. Why are you doing this?

Philip Rutnam: The benefit-cost ratio, as the Committee probably knows, is just under 2:1 if you only measure the transport benefits—in our categorisation, that would be regarded as offering medium value for money—but it is about 3:1 if you include the wider economic impacts of the project, the impact on the competitiveness of the British economy in particular, and we regard that as high value for money. So we do not think that this is a marginal project; we think that this is a very good project, and one that is well worth investing in.

Why are we doing this? Well, it is not just a matter of the benefit-cost ratio, which we have talked about before and I certainly agree is important. The strategic case for the project

goes wider and further than any numerical measure, and it really goes to the long-term trends of growth in population and in economic activity, and the need to have the transport capacity and connectivity to cater for those, to feed and support the economic engine that is the economy of London and the south-east, and to support the wider national economy. The strategic case for the project is very strong, as is the quantitative analysis in terms of benefits to costs.

Q2 Chair: “Strategic” is a word that people such as consultants love using, but at the end of the day you are doing these things because they produce benefit. There are many other projects around the country that have much higher benefit-cost ratios—the dualling of the A11 has a benefit-cost ratio of 20:1¹, and I am glad that it is going ahead. Other projects around the country are producing potential benefit-cost ratios of 3:1, which you are not calling high; you are saying they are sufficiently low that you are not going to do them.

Philip Rutnam: We are comparing rather different things. I completely agree that projects such as the upgrade of the A11 are very attractive; that is an important project. There are other relatively small road projects that often typically offer quite high BCRs, not usually in the order of 20 or 24:1, as I think the A11 scheme is, but often in the range of 3, 4 or 5:1. But they tend to be relatively small schemes in general.

Q3 Chair: So you are saying that if it is a large scheme and it is London-based, you will tolerate a lower ratio?

Philip Rutnam: If you are looking for schemes that will make a really big impact on the long-term growth of the economy and a long-term impact on people’s quality of life, you tend to need to do large schemes. This is a large scheme that will produce very large benefits in terms of supporting transport capacity and connectivity so that London’s population, which is growing quite rapidly, can move around, and so that London’s businesses can attract labour from a much larger footprint. I think this project brings more than 1 million people within a 45-minute commuting time of London. It is a very big increment in terms of the competitiveness of the London economy and the ability for employers in London to attract people to work from a large area.

Q4 Chair: Are you worried that London is not growing or overheating enough and it needs this extra infrastructure to encourage more people to come here?

Philip Rutnam: Transport is a long-term business. I am worried that if we do not plan ahead and invest in projects exactly like Crossrail, we will find that London in the future is choking off growth, because the transport system is too crowded. We will find that employers cannot get the skilled labour—of all kinds—that they need, because people do not work in London, because it is too unattractive to commute into town. I am worried that if we do not think ahead, we will not have the transport capacity—the transport system—that London needs to be a successful economy.

¹ Note by witness: This should be 24:1

May I mention one other point, because you said you do not like the word “strategic”? Another element of the strategic case here is how the project will help make better use of land—this is not in the quantitative analysis, but it certainly forms part of our strategic analysis—in and around the London region, which otherwise will not be brought properly into use. Transport has a key role in bringing land that could otherwise be underused into productive use. That is particularly the case in the east of London, but there are also areas in the western end of Crossrail that have significant development potential and significant scope for the land to move into higher value uses, which Crossrail will support.

Q5 Chair: Those are all good points. There are many good arguments in favour of big infrastructure projects, of course. Before we move on to managing the risks in the remainder of the project, I want to test this issue of benefits more broadly and invite other members of the Committee to question you on it as well. Is there not an element of being self-fulfilling? There are potentially opportunity cost effects of doing this project compared with the potential for development elsewhere in the country. There are potential crowding-out effects.

This Committee visited Spain some years ago, where, because most of the money is raised centrally, but is spent in a very decentralised way, there are much more dispersed levels of high-value-added economic activity, which saw the country go from an underdeveloped agricultural country under fascism to a first world country—a very advanced country—in about 30 years, because of the dispersal. You can see in the east, in the north, and possibly in Wales and elsewhere clusters of economic expertise and skills that could grow if you simply made some different assumptions. Is that not true?

Philip Rutnam: There are a number of different points there. I have also visited Spain and I have also been impressed by what has been achieved in Spain. If you take a long enough time horizon and look at what has been achieved in Spain—notwithstanding the recession—through high levels of investment in infrastructure, there was quite a highly centralised element to the investment plans in infrastructure, particularly because of the interaction with European structural funds. So, on the investment plans in Spain, I think there was a very important element coming from the Ministries in Madrid, as well as regional governments.

Q6 Chair: But it was spent in a very decentralised way. The point I am making is not that there was not some involvement from the centre, but that the decision was made to grow elsewhere, rather than to grow the centre further. If you want to use the word “strategic”, that is a good example.

Philip Rutnam: If you are looking at the Spanish rail network, I think the planning was overwhelmingly centralised; with the road network in Spain, there was a larger decentralised element, just as there is in the UK, in fact.

You asked about opportunity costs and crowding-out effects. Opportunity costs? Absolutely. They are built into the fabric of the way in which the appraisal of transport schemes operates. We think our appraisal of transport schemes in the UK is world class and it is not only our opinion that it is world class—it really is first rate. With opportunity costs, the

concept that any unit of capital spending from the state applied to one project will mean that we are not able to apply it elsewhere is built absolutely into the fabric of the way in which we think about projects. That is why we can make these comparisons and why we are having this debate about how you compare the Thetford upgrade on the A11—24:1—with Crossrail.

What I am trying to say, though, is that the issues do not stop with the pure arithmetic of the benefit-cost ratio. The issues around making choices about transport investments are much, much wider. The arithmetic—the benefit-cost ratio—is an important and useful input, but it does not tell you the whole story.

You also asked about crowding out, which would mean investment in this project would mean that there is less capacity to invest in other things elsewhere in the economy; that is the usual definition of crowding out. We don't think that there are crowding-out effects here in Crossrail or elsewhere in our transport investment programme, provided that things are kept in reasonable measure and provided we attend to any potential inflationary effects.

Q7 Nick Smith: Like everyone else, I offer general congratulations on the project, and well done for leveraging in other moneys to sponsor it financially across the piece. However, I am afraid that not everywhere else is getting a fair shake of the stick. Coming from Wales and looking at the valleys lines, or Paddington to Swansea, I know that we are further down the line for investment such as this.

I am very interested in the wider economic analysis that says that we should invest in Crossrail at this time rather than in Paddington to Swansea or in electrification of the valleys lines, because certainly in my constituency of Blaenau Gwent we have economic depression and if we had much better transport infrastructure I am sure that my constituency and the valleys of south Wales would benefit hugely. However, I am not sure that you are doing the wider economic analysis of the other economic benefits that come along with transport infrastructure, to take a decent review of all of this, and for Wales, the north-east and other parts of the country to get perhaps a better shake of the stick.

Philip Rutnam: The first and most important point to get across is that in the Department we have a whole range of different projects; we have a portfolio of investments. Yes, there are some very significant investments in London, Crossrail being a very prominent example, in partnership with—

Q8 Nick Smith: Thameslink—and you could go on and on really.

Philip Rutnam: Thameslink is another example, yes, but we have literally tens of billions of investment now and planned in the future across the whole country. So there is a £38 billion Network Rail investment programme, stretching from 2014 to 2019, which includes the electrification of the Great Western main line as far as Cardiff and, in partnership with the Welsh Assembly Government, to Swansea. It includes the electrification of the midland main line to serve Derby, Nottingham, Leicester, south Yorkshire and on. It includes the intercity express programme, which is something I am particularly passionate about because it does not seem to get the attention it deserves. That programme includes replacement of the high-speed trains introduced in the 1970s; I remember their introduction

and the excitement about it. Those trains, of course, serve south Wales and after 40-plus years they are being replaced by a modern, higher-speed fleet of electric trains—

Q9 Nick Smith: Can I interrupt? I accept that these things are in the pipeline, and it is good that they are in the pipeline. However, that electrification of the valleys lines and investment in transport infrastructure in other parts of the UK generally comes after the south-east. That is the way that many people see it. I am not sure that the analysis that you use, based on journey times, congestion and so on, takes into consideration other economic benefits of transport infrastructure and investment. I am not persuaded that the tools you use at the moment take into consideration wider economic effects. I accept that this is a good project. It is great that you have other people to sponsor it. You have made very good progress with implementation so far. I am just not convinced that other places could not have had some of the money earlier rather than later.

Philip Rutnam: There are two points to make about that. The first is that the projects are not just in the pipelines. These projects—the ones I have just been talking about—are happening here and now. If you travel down the Great Western main line as I imagine, Mr Smith, you probably do quite often, you will no doubt see what is happening at Reading. It is not just transformation of the station, it is an enormous, £1 billion project to de-bottleneck that critical crossroads of the rail network, which will bring significant benefits to people travelling to and from south Wales. The intercity express trains, which I talked about, are not just in the pipeline. The factory to make them is being built here and now—there is no doubt work on the site today—in Newton Aycliffe in County Durham.

These projects really are happening here and now. The same is true in the roads programme where obviously our responsibilities are England-wide rather than UK-wide. They are happening here and now. There will always be a debate about the balance between investment in London and investment in the rest of the country. What I would say to you is that so far as the Department is concerned, we are energetically pursuing a portfolio of very large investments—really historic investments—not just in London but across the rest of the country, of which HS2, which tends to get the most media attention, is really only just one part. The things I have mentioned already have all the planning permission. They are happening here and now. They will bring benefits and are bringing benefits now as well.

Q10 Nick Smith: Could I ask your colleagues either side of you whether they think the tools we use for analysis on investment projects like this are good enough or is there a better way to look at the value of infrastructure and transport investment?

Sir Peter Hendy: I am not sure it is the answer you want to hear, but we were very pleased that the analysis of the Crossrail project, before it was funded, took more account of the agglomeration benefits that it would bring to London. I think a reflection of that is the fact that, as you said, there are contributions to this project from the City of London Corporation, and the business community as a whole was extremely keen to see it happen. That reflects some of the things that Philip has said.

Q11 Nick Smith: Mr Wolstenholme, what do you think about this?

Andrew Wolstenholme: I think it is a very important debate to have around the economic benefits of these programmes. If I can talk from the chief executive role of delivering this programme, we pay huge attention to understanding how this is advantageous not just to London and the south-east but all the regions of the UK. Let me give you some examples. We have now put almost £5 billion into the supply chain. We record very carefully where the Crossrail pound goes. I am pleased to say that three out of five of all the work packages we let, go outside of London and the south-east. If you equate that to work in the regions, it is 75,000 individual business opportunities, the equivalent of 55,000 full-time jobs over the life cycle of the delivery phase of Crossrail. These are very important statistics.

What my chairman and I do is go around the regions of the United Kingdom to make sure that those suppliers understand the opportunity there is to pick up work, not just on Crossrail, but Transport for London equally has a large capital spend through their annualisation; that they are aware of what work there is and that we match particularly the 58% of small and medium-sized companies to the work load that we have. Beyond that, I can also tell you that 95% of the organisations that are dealing with Crossrail work at the moment are UK based. So not only is there a perspective on the longer wide-term lifecycle economic benefits; we should also take full account of the opportunities there are for small and medium-sized businesses right across the UK.

Chair: I should like to spend not too much longer teasing out this discussion on benefits and then move on to risks.

Q12 Stephen Barclay: I should like to focus on the scope to improve the way BCRs are calculated. Do you have any plans to refine the way BCR is determined?

Philip Rutnam: Yes, we do have plans, and there is work under way at the moment. We have talked about it in some detail, but I would highlight that, in truth, we think that single-point BCRs probably do not tell you enough about a project. They are a slightly stylised version of the picture as we have it. If you look at the strategic case that we published for HS2 last autumn, which followed a discussion I had with this Committee in the mid months of last year, we put a lot of effort into trying to illustrate how the benefit-to-cost ratio for that very big project could change under different circumstances. It was more of a sensitivity analysis, if you like, and it had more of a sense of the range of the benefit-to-cost ratio, and its sensitivity to various different assumptions or states of the world that we may face in the future.

One area in which we have made a lot of progress is what was referred to by Peter Hendy earlier as “agglomeration”, trying to capture not just the literal impact of transport projects on the user of transport—the time saving, the decongestion and the improvement in the environment for the user—but the wider impact on the economy in terms of how firms might respond, the spur to competition, the labour market effect and the concept of agglomeration, and how firms respond to that. Essentially, firms are more competitive and people are more productive generally when they are packed a little bit more closely together, if I may use that analogy. We have made progress on that even since the last time the business case for Crossrail was set out in depth in 2011 at the approval point. That progress has been reflected in the HS2 strategic case, but there is more to be done on, for example, what is the feedback loop to land use and firms’ locational decisions. I would identify

sensitivity analysis and sensitivity testing, and the feedback loop into economic geography as still very much work in progress.

Q13 Stephen Barclay: How would that work for developed value?

Philip Rutnam: Do you mean the value for developers?

Stephen Barclay: The way the value of the land will be developed, and how that would differ, depending on where the transport infrastructure goes.

Philip Rutnam: When we look at the economic appraisal of a project, essentially we are trying to capture the economy-wide effects. If you were looking at impacts on land use, you would, in principle at least, be trying to estimate how the value of some land might rise in response to a project, and what happens to the value of land in the rest of the economy. To pick up my point about firms' decisions, it is particularly difficult to estimate how firms might adjust their behaviour and decide to locate perhaps to the east end of London, to be closer or further away from a station. You try to model those sorts of effects. If you could do it with sufficient confidence, you might attribute a value in the BCR. At the moment, we are not at the point where we can attribute a value, a quantitative value, to some of those things in the benefit-to-cost ratio, and that is one of the reasons why it is important to think about the strategic case. I accept that strategic is an overused word, including by consultants, but the purpose is to try to capture things that you cannot necessarily quantify.

Q14 Chair: Can I ask the Comptroller and Auditor General to come in at this point?

Amyas Morse: Thank you, Chair. I welcome what you are saying, Philip. I was intrigued to look at the site for some of the development resulting from High Speed 1, and around the Olympic village.

There is what I would call the traditional business case context, and then there is directly attributable development associated with the development of a line, which can be very substantial, and which is not off in the clouds and termed, "economic development, possible measurement of". Then, there are the tertiary benefits that one can see in terms of the effect on the economic environment. I would have thought that we could be a lot more crunchy about that middle category on the effects on an area. Take the King's Cross area, which is a substantial development, and I am interested to have a look around the site. You do not need to be terribly vague about the development value because there is methodology for projecting what the developed value of a site of that size would be. Of course, there is a range of value, but it is quite well developed, and it would be interesting to hear more about that.

We observed that although TfL and the Department have a similar methodology, TfL seems to support it with quite a lot of independent research to find out what it thinks the facts may be that are specific to the project. Are you getting beneficial learning points from working with TfL on this one? If you are pooling your expertise that would be most encouraging. That is a more diplomatic way of putting it.

Philip Rutnam: I am not quite sure which point you are referring to—

Q15 Chair: It sounds to me like a very polite version of saying that TfL have more idea of what they are doing than the DfT.

Philip Rutnam: Yes. I got that bit but I should like to know precisely why. TfL is one of the biggest transport delivery organisations in the UK—in the world probably—and has tremendous expertise. We should like to pride ourselves on being one of the best Transport Ministries in the developed world. We have slightly different approaches and different objectives, but there is a huge amount to be gained from our sharing ideas and debating the approach to thinking about these difficult issues. We do that and we also swap people. I have people on secondment in Peter's organisation and we do things in the reverse direction as well. I think we work very closely together, but there is always room for improvement.

Sir Peter Hendy: It might be helpful if I add to that. We look back at the appraisal, for example, of things like the Victoria line, which apparently had a very thin case at the time it was approved. Indeed, it was descoped, much to our dismay now. We are rebuilding Victoria station at a cost of £600 million because it was so descoped when the Victoria line was built that it is now incapable of serving the number of people who are trying to use it every morning. I can get more trains through the platforms than I can get people down to the platforms because of the descoping. Arising from that and some of the other projects that we have done since, we have looked very hard at the wider benefits of these schemes and you would expect me to be encouraged to do so by this Mayor and the previous Mayor, both of whom are very concerned to have adequate transport facilities for a city that is growing by 70,000 or 80,000 people a year.

That is why we have done this analysis, some of which is very new. I and my finance colleague speak to other transport organisations in cities not only in the developed world but the developing world about the way in which we are justifying these projects because it is quite unusual to do it this way. Even in some European countries, where hitherto public transport investment money has been more freely available than perhaps it has been here, they, too, are turning to these analyses because it is the only way they can find to justify their projects. Recently we were asked to brief my Parisian colleagues in the Île-de-France region on the appraisal processes we used for Crossrail in order for them to look at their transport portfolio stretching out to 2030.

Chair: I should like to bring Mr Barclay back in, but first may I just explore that point a little? We were discussing this very point earlier with the NAO. There is plenty of academic evidence to show that in the process of developing and securing support for projects, there is what you might call a “bigging up” process where you big it up and you send back the technicians until you get the answers you want. Years later when you look back, whether it is the Victoria line or the M25, everyone thinks, “Goodness, how could we possibly have coped without this?” There is something very, very inexact and very inadequate about the processes you are using to calculate the overall benefits in the first place. There could end up being an enormous range between having to work very hard to justify it and looking back afterwards and thinking how could you possibly have done without it. What is it about the science of this—there is supposedly a lot of science involved—that still ends up allowing it to be so inexact?

Sir Peter Hendy: I am not sure we were bigging it up. Certainly business in London was very keen for it to be bigged up.

Q16 Chair: I was making a general point about large infrastructure projects generally, whether you are talking about the bridge between Sweden and Denmark or the M25, which was criticised, or the Victoria line, which was criticised, or many other projects. This is a generic point.

Sir Peter Hendy: My experience is that if I turn up at Philip's Department and say I have a portfolio of projects, they all say, "Well, he would have those wouldn't he?" I run a big transport organisation. What is significant about Crossrail and other projects, certainly in London and other cities such as Manchester, is that it is not much use my turning up on my own. The people who make the argument for you are the people whose economic activities are damaged if those projects aren't done. It was London First, the City of London Corporation and the London Chamber of Commerce who made this argument. We were producing independent, academic analyses of the agglomeration effects of the project in support of their support of the project—if that makes sense. If there is a range between that and a very narrow analysis of it in cost-benefit terms, which is in fact what happened on the Victoria line, I would like to think not that that range means that the analyses are inexact but that at the end of it, which we have now got to with Crossrail, it is a better analysis.

The one thing you don't want us to do is to build a project which is only just sufficient for the passenger traffic it might carry on day one. As a matter of fact, since Crossrail was authorised, the population of London has been consistently growing at 70,000 or 80,000 people a year. I have no doubt that the day it opens through central London in December 2018, it will be remarkably full. Within a few months thereafter we will have soaked up the capacity that it releases on the tube. People are already arguing for Crossrail 2, even though Andrew has not finished building Crossrail 1. Business has argued for it as well.

Q17 Stephen Barclay: I wanted to come back to this methodology point. Is it the case that the standard BCR measures in monetary terms rather than the wider economic benefits?

Philip Rutnam: We generally quote two BCRs. One essentially only measures the transport user benefits, so those are benefits like shorter journey times, the fact that it is not crowded, maybe something to do with the ambience of the journey and the beneficial effects on other transport users. There might be less road congestion, for example. That is a narrow version of the BCR, which is just focused on transport impacts, if you like. The wider BCR, which is the 3:1 figure I mentioned earlier, tries to capture more of the impacts on the wider economy, such as how efficiently firms and employees can find each other, for example. That is the wider economic impact. Agglomeration is usually the most important of those, which is that slightly difficult to pin down concept that by and large with larger economic units, when you bring things more closely together, competition and productivity increase.

Q18 Stephen Barclay: But are not a number of projects ruled out without that wider economic study taking place?

Philip Rutnam: Generally with transport projects, wider economic impacts will be positive. There are benefits. So, by definition, the case for investing in transport is generally stronger if we include the wider economic impact. My personal view is quite strongly in favour of making the presentation simpler and just presenting to the world a BCR that includes the wider economic impacts rather than this split presentation.

Q19 Stephen Barclay: But that is not the case. What I am trying to drive at is to what extent we can improve the methodology. There are sometimes concerns about the distorting effect in that big schemes have better access to the wider economic benefits. A lot of smaller schemes are ruled out because the sheer process around the initial BCR, the wider economic benefit assessment, the GRIP 2, the GRIP 3, the sheer cost of getting shovel ready is so high, it precludes a lot of schemes, particularly rural schemes, at the expense of your big-ticket projects. It is that distorting effect that the methodology is not really addressing.

Philip Rutnam: I think I understand the concern. Well-designed smaller schemes often have very good BCRs. There is a long queue of smaller schemes which have very good BCRs, but that is typically on transport impacts alone. You may not need to or want to go to the cost of trying to work out any wider economic impact; it can take a bit more time and effort and the expert resources are scarce. There is a large number of small, local schemes which generally have very positive BCRs. They may be road safety schemes, such as improving a junction to bring some road safety improvement. They may be some fairly minor improvement to the road network or the rail network. There are lots of small schemes with good BCRs.

I understand that and it is one of the reasons why we tried to have a very rigorous approach to appraising schemes and judging whether or not they are going to offer good value for money. We put a lot of effort into it. We also put a lot of resources ourselves into smaller schemes, so the Highways Agency has a large programme of smaller schemes it is taking forward. We have also funded a large number of what are known as local pinchpoint schemes for local highway authorities in particular. We have funded them to help them take forward some of these smaller schemes which otherwise might not have the resource. To be honest, I see this as about having a portfolio. You can't just do small schemes, that wouldn't give you the best mix, nor just big schemes. It is about having a mix.

Chair: It is all extremely interesting, but if you try to keep your answers snappy and short, we have a lot to get through.

Q20 Austin Mitchell: I want to start with my version of, "Maybe it's because I am not a Londoner that I'm so doubtful about Crossrail". Just to put it in perspective, you have talked as if London is the drive motor of the whole British economy, therefore the concentration of schemes on London is going to benefit all of us. What is the transport spending per head in London, compared with, say, the north-west or Yorkshire and Humberside?

Philip Rutnam: The latest figures I have got to hand are for 2012-13. I hope these will be sufficient by way of currency. The public spending per head on transport in London is of the order of £550—£545 is the figure I have got for that year. The average across all English regions is between £260 and £267. Public spending on transport is higher in London, and there are some good reasons for that, which we can perhaps go on to talk about, but it is higher. However, it is worth noting that if you measure things in different ways—if you look at the level of subsidy per passenger mile, for example, on the rail network—the level of subsidy away from London is generally much higher. The level of subsidy on, say, the regional rail network is of the order of 30p per mile, whereas in the south-east it is of the order of 4p per mile.

Q21 Austin Mitchell: Okay, if London is that powerful and benefits so much from Crossrail, shouldn't we be entitled to expect that London businesses would contribute more to the cost of Crossrail? Yet the contributions from business seem comparatively small to me. The contribution from Heathrow has just been cut down to a quarter of what was promised and it is my recollection that when the Jubilee line was built, big contributions were promised but never materialised. So at the end of the day, if you don't get contributions from business and if the promised contributions aren't forthcoming, the Department for Transport—that is to say all of us, the taxpayers—will be asked to pay more for Crossrail.

Philip Rutnam: London businesses are contributing very significantly to Crossrail. Perhaps I will talk about Heathrow in a moment, but because this is actually the Mayor's responsibility, perhaps Peter would like to say something about how London businesses are contributing through business rates, the business rate supplement, infrastructure levy and other tools.

Sir Peter Hendy: I think London businesses would certainly disagree that they are not making a substantial contribution. We have received £3 billion-worth of borrowing from the GLA, in line with the prospectus, and the business rate supplement, which is levied on all businesses over a certain size, is going to pay that back over the next few years. There are also the community infrastructure levy, section 106 and of course there is a substantial contribution from Canary Wharf in kind, which is building the Canary Wharf station. So if business were here, they certainly wouldn't say that that was a minimal contribution to this project.

Q22 Austin Mitchell: Is that money in hand or money promised?

Sir Peter Hendy: The GLA has borrowed money for us to have and is getting it repaid via the business rate supplement process. The community infrastructure levy is being levied on a week by week, quarter by quarter basis, and section 106 contributions come in like that. The Canary Wharf contribution has in effect already been received, because they have built the station for the railway to occupy. To my knowledge, this project has more contributions of that sort than any other comparable project ever had. Indeed, it is significant that the City of London Corporation volunteered money of its own to put in, and you might have assumed that businesses objected strongly to the business rate supplement. Some of the retail

businesses did, because it is related to square footage, but most of them have gone along quite happily, anticipating that the benefits of the project are worth having.

Q23 Austin Mitchell: What went on with Heathrow?

Philip Rutnam: Back in 2008 an agreement was reached between the Department and Heathrow Airport Ltd about a contribution towards Crossrail. In the money of the day, it was £180 million; in the money of today it is about £230 million. But that agreement was very clearly subject to the regulator, the Civil Aviation Authority, agreeing that Heathrow could add to that investment, to what is known as its regulatory asset base—basically, the capital base—on the back of which Heathrow charges airlines to use the airport.

On what happened about the contribution of Heathrow, if we roll on five years to 2013 when the matter came before the CAA, the CAA considered the viewpoints of not only Heathrow Airport Ltd and the Department, but the airlines, and the CAA concluded that it could not justify £230 million being paid towards the project. Instead, after a great deal of consideration and some quite strong representations that we put forward, with some proper economic analysis underpinning them, the CAA settled on £70 million. So, on the issue about Heathrow, in hindsight I do not think the caveat that any contribution was going to be subject to the regulator's agreement was quite large enough; it was not clearly communicated.

Q24 Austin Mitchell: Okay. Final question. We seem to have lived with Crossrail for yonks. As long as I have been an MP, it has been on again, off again. I see from figure 1 that it goes straight across east-west. All the big developments that have gone on since—HS2 coming into Euston; St Pancras now being used as the international terminal; and the development of King's Cross—have been in the mainline stations, but they are not connected. Won't you have to build a north-south Crossrail as well?

Philip Rutnam: Let me just say something about that. The case for Crossrail is really strong, because it provides a huge uplift to the capacity of the London transport system to bring people in to the centre of the city and take them home again safely at night. It provides great connectivity from the west and the east right into the west end, which is a main shopping area, but also a large business area, and right into the City—Farringdon and Liverpool Street—and into Canary Wharf, so the biggest three business centres in London are connected directly by Crossrail. You can only do that by going in an east-west direction. You would not achieve that if you went via Euston and King's Cross and further to the north.

The case for another mega-project, which might be called Crossrail 2, is a case that the Mayor and Transport for London are putting forward. The Government have not committed to the project. They have said they will want to look carefully at the case for the project, but this would be a very large undertaking, and there will be questions about affordability and priority, including—this is a matter for Ministers—about the priority for yet more investment into London, and connectivity in and around London, compared with the rest of the country. Metaphorically, we have our hands quite full in the Department at the moment. We have Crossrail and also HS2. HS2 will be transformative in terms of north-south connectivity, and it also requires a significant amount of public capital expenditure.

Q25 Justin Tomlinson: Just two points. First, building on Mr Barclay's points about how you evaluate which projects are best value for money when comparing them, and the challenge for smaller projects.

In my constituency we are looking at a £60 million road extension, so that would be classed as one of the smaller scale projects. The only way we can be considered is if the local authority spends £3 million building a proper business case, in effect gambling the money, because there is no guarantee that it will then be considered best value for money and brought forward. Do you have the confidence that you have access to the full breadth of potential projects to determine where best to spend money?

Philip Rutnam: We do not have information on every possible project in the country, no. We have to be quite clear about what we are responsible for and what we are focused on delivering. The local road network is a critical part of the country's transport infrastructure—98% of all roads and two thirds of all traffic—but it is the responsibility of local highway authorities.

Our job is to provide part—but only part—of the funding for local highway authorities. As you probably know, we do that through recurring funding for highway maintenance and transport in the round. We are also doing it in particular through the local growth fund, which is a very significant initiative by the Government to bring together different sources of funding for all sorts of projects that could contribute to local economic growth. My suspicion, if you like, is that the project you are talking about—and £60 million is a lot for a local highway project—

Q26 Justin Tomlinson: I just tried to sneak it in.

Philip Rutnam: That is a lot. That would be counted as a local major scheme in old terminology. That is exactly the sort of project that would be put forward through the local growth fund mechanism for consideration for funding there.

Q27 Justin Tomlinson: Further to that, what advice and expertise are then provided for these smaller projects to come forward? If you are going for a really major project, clearly all the great and the good come together and work together on it. If it is a smaller one, particularly in rural communities, they would not necessarily have that expertise. In theory they would have to pay proportionally a lot more money to get the relevant expertise in to bring it forward.

Philip Rutnam: There is pretty good guidance on our website. Part of our role is to help local authorities think about how to appraise transport schemes and we do try hard to be proportionate. We deal with lots of matters. We have the local sustainable transport fund, for example, which has been funding a large number of quite small projects—in the hundreds of thousands or low single-figure million projects—and we have been clear that we do not need the same kind of analysis and appraisal of projects that are small as we do of the big ones. It

has to be proportionate. We are also very conscious of the resource pressures on local authorities. I would advise your local authority, if they feel they have a problem in their relationship with the Department, to get in touch.

Q28 Justin Tomlinson: No, they're fine. They think you are great—remember that when reviewing it.

Philip Rutnam: Thank you.

Justin Tomlinson: I just want to reassure my colleague, Mr Smith, who is a good man, that we share the Great Western Main Line. Just so that he leaves today feeling reassured that London is not getting everything—because we both benefit from non-London things—

Nick Smith: We do.

Q29 Justin Tomlinson: I have three very quick questions. How many miles were electrified between 1997 and 2010? Secondly, how many miles are currently being commissioned for electrification? Thirdly, am I correct in thinking that we are seeing the greatest investment in our railways since Victorian times?

Philip Rutnam: My Ministers would know the answers to all those questions off the top of their heads, because it is more transport oral questions material. I will do the best I can. The answer to the third one is undoubtedly yes. It is a huge investment programme in the existing rail network, never mind HS2 as well. The answer to the second one, from memory, is 851. The answer to the first is a very small number but I cannot remember how many.

Q30 Chair: You can write to us to confirm. I am going to move on shortly but not yet. Before I do, I am going to invite Mr Barclay, Meg Hillier, who has been waiting patiently, and Nick Smith to come back one more time on the broader issue of benefits. Then I want to move on to risks. Before I do, can I just point out that the A140 Long Stratton bypass is only about £30 million, so is about half the price of Mr Tomlinson's scheme.

Q31 Stephen Barclay: I have a quick point that may be for a note rather than to be answered today. I understand that the LEP funding does not kick in until April next year.

Philip Rutnam: Sorry, which funding?

Stephen Barclay: The LEP funding route does not kick in until next year. In terms of getting things shovel-ready, if you want to do work on a GRIP 2 now, you cannot fund that. Second point: my understanding is that that sort of work would be classed as revenue rather than capital. That might be something for you to look at, because obviously that has implications. If you can answer that now, that is great, but perhaps you want to take that away and come back to me.

Philip Rutnam: I would be very happy to provide the Committee with a note on the local growth fund, what it is making available, how it works and so on.

Q32 Stephen Barclay: You see the potential issue. The danger there is that funding will be skewed towards what is shovel-ready, which means bringing out your road projects, which do not necessarily reflect recent changes in population growth. Also, if the LEP funding measures things such as how many new houses you have built, that does not pick up benefits for health and prosperity, and some of the wider impacts on a community that you would see in a constituency such as mine. It comes back again to the sophistication of the measures that you are using, and it might be an area that you would want to look at again.

Philip Rutnam: Okay.

Q33 Nick Smith: I am a huge supporter of the infrastructure investment plans for the years ahead. I did not need the party political broadcast—I do get it and I think it is the right thing to do. I think I support HS2—I might even support Crossrail 2, actually. I do, however, want a new metro system for south Wales and the valleys.

I was interested in your point, Mr Rutnam, about the investment balance. It seems that London and the south-east get twice as much as the rest of the country on the 2012 figures. How will you ensure that there is a balance of infrastructure investment in other parts of the UK in the next 15 to 20 years: rural and urban; north and south; and east and west?

Philip Rutnam: Actually, ultimately the questions about priorities, particularly at a very aggregate level, are really matters for which Ministers have primary responsibility. It is the officials' job to advise and to give as much information as possible about the options and implications—the case for and against, and so on—but ultimately Ministers are responsible for making the big decisions about the choices as to where we invest public money.

I would just repeat that, yes, Crossrail gets a lot of attention. It is a great project and the media love it—it gets a lot of air time—but we actually have some fantastic projects going on in the rest of the country. We do, I think, have a balanced portfolio, and we are trying really hard to deliver big things across all parts of our responsibilities. As you know, we are working closely with colleagues in the Welsh Assembly Government on the prospective electrification of the Welsh valley lines, and the link between that and the electrification of the great western main line. We are also keen to see an upgrade or replacement of the rolling stock to see a different sort of service available in the Welsh valleys.

Q34 Nick Smith: I do get that, but for the moment it is 2:1—

Chair: We have allowed a broad discussion about benefits—

Philip Rutnam: May I comment very briefly? I said that there are good reasons why London has a high public transport spend per head, which is that cities generally have high

public transport per head. London is a particularly large city and such cities tend to be particularly dependent on public transport. That is where a lot of the public money goes.

Chair: Thank you, Mr Rutnam. I will allow quick interventions on this subject and then I will move it on. Guto Bebb wants to say something about Wales and then, because Meg Hillier is a London MP, I will leave the last word on the subject to her.

Q35 Guto Bebb: It is not necessarily about Wales, but I just want to clarify whether, as a result of Crossrail, there were any Barnett consequential for the Welsh Government?

Philip Rutnam: May I come back to you on that? I am afraid that it was before my time.

Q36 Meg Hillier: I am also interested in cost-benefit. Will you talk through the assessment you make in the planning of Crossrail 2? I should say to Andrew Wolstenholme that I think it has been a very well managed project: it is one of the models, along with a number of Sir Peter Hendy's projects—notably the East London line—for delivery on time and under budget. What assessment are you making about the value around stations in particular? We have talked about the huge uplift. This is probably for Sir Peter, and perhaps Philip as well.

Sir Peter Hendy: There is a direct benefit, which is that the new stations—certainly in central London—are capable of supporting over-station development. I think, shamelessly, that the project has sought to maximise available over-station development, subject to local planning criteria. You may have thought that Bond Street might have been higher and bigger, but the City of Westminster planning rules allowed the project to only build a certain amount. At every one of the central London stations, there is such a development. Of course, Andrew's people have been maximising it.

Whether you would argue in the future for an even greater level of gradation between the levies put on property or business immediately surrounding the stations rather than a London-wide levy is an interesting question. I am sure that Crossrail 2 will get progressed, if only because the population increase shows no signs of slowing down. I suspect that, when it does, we will have another debate about the level of levy, taxation or support that the areas immediately around the stations can give vis-à-vis other places.

Of course, that depends on where you send it. Even in respect of the present Crossrail project, there are stations in which there is virtually no development where you are looking to have development. For example, on the south-eastern branch, Custom House and Abbey Wood are both in need of serious economic regeneration. There will not be an over-station development immediately at Custom House; it would be nice if there was, but there will not be.

If you look at Crossrail 2, a similar condition applies at the Lea valley. If there is a purpose in sending it up there, it will be to create basic economic regeneration, houses and jobs.

Q37 Meg Hillier: So you are saying, basically, that there are lessons still to be learned about how to do this better.

Sir Peter Hendy: Oh yes, absolutely. You could put in parentheses that these projects take so long to get to fruition that, in some cases, the areas around the stations have changed dramatically. In fact, with Crossrail 2, where we are looking at the alignment to look at safeguarding again—in answer to an earlier point—Crossrail 2 will have to go through Euston and St Pancras, because since it was first envisaged, which itself is tens of years ago, Euston and St Pancras are where you would send such a line.

Q38 Meg Hillier: Some of the stations, though, can generate a benefit in their own right. I would particularly touch on Woolwich, which could not be built without a developer contribution. It took some tooth-and-nail fighting to get that contribution recognised, if you like, in the development. There seems to be a big gap there between local demand, local knowledge and a belief in the developer community that you are not getting as much as you can from developers on some of these sites. That is a good example.

Sir Peter Hendy: That is an interesting point. Certainly, whether there was a station at Woolwich was hotly debated. The discussions and negotiations between the borough, the largest developer and ourselves about who should pay which contribution were closely argued.

It is almost inevitable. If you had developers at this end of the room, they would say, “Well, nothing is certain until the agreement is signed.” If you had asked me then, as you are now asking me, I would have said that it was certain that there would be a contribution, because the result of a station in Woolwich would be a huge unlocking of economic development and larger housing potential. In any event, we got an agreement.

Andrew Wolstenholme: I think, in part, because of how the governance is set up, we pass an enormous amount of learning between the live project Crossrail and the two joint sponsors. That is important for a number of reasons.

If I could just add to this debate on economic value around property, we have made it our business to do some studies as to what happens around our Crossrail stations, of which there are now 40, and 10 in central London. Just to illustrate, because we have to sink the vertical shafts for the eastern and western ticket halls in central London, we also, as Peter says, have the opportunity to provide over-site development. We have around 3 million square feet of that development. In fact, the development profit from that goes straight back into the project to help pay for it; there is somewhere around £500 million of that. More than that, the confidence that is brought by Crossrail, the quality of the investments and the fact that we are putting public realm in around our stations has an increased-value phenomena around and across all stations.

It is estimated by a report that was done on behalf of Crossrail by GVA almost 18 months ago that there would be not 3 million square feet, but 3 million square metres of additional property built as a result of the confidence, and that 57,000 houses—not new houses, but houses already in the planning cycle—would be brought forward because of

Crossrail. You can only see the influence that we, Crossrail, are having at the moment, and I think this is important learning to go to the future economic debate.

Just one last point around people: we employ directly around 10,000 people at the moment. We are upskilling between 3,000 and 4,000 people to build tunnels safely underground. We have an apprentice programme to put in place 400 apprentices, and while the national average of apprenticeships for NEETs—people who are without work and training—is around one in five, Crossrail is obtaining two in five. So I think the economic benefit from business opportunities outside London and the south-east, the economic benefits from the growth in property in and around London and more widely, and the economic benefit through employing people, directly and indirectly, are some of the benefits—some of the learnings—that are clearly of economic benefit, but are not necessarily captured by some of the wider models.

Q39 Meg Hillier: So can I ask Philip Rutnam why we have such variation? I do not know if it is down to your negotiation skills or the power of the people you are negotiating with. We heard about Heathrow—the contribution went down massively. The City corporation has had an offsetting arrangement of £10 million a year with the Treasury. Canary Wharf coughed up pretty quickly. With Woolwich, a negotiation was done, and there are other examples. Why the variation? Is it down to the skills in the Department? Is it that lessons are still to be learned? What would you say about that?

Philip Rutnam: My personal observation would have to be limited to the past couple of years when I have been in the Department. What I would observe is that each of these is actually quite a complicated bespoke deal involving a range of different parties whose incentives, motivations and interests vary in turn. We have already talked about Heathrow, where the key factor was the regulator's ultimate role in making a decision. With Woolwich, I have to say that I think the Department, together with our colleagues in TfL and elsewhere, did a very good job in sticking with the principle that we would not be paying for the cost of the station fit-out, and ending up with a deal in which not just the station box has been funded by the developer, but the station fit-out has now been funded without any cost to the central taxpayer. So I think we have done a good job in that.

Canary Wharf has already been mentioned: obviously, a completely different situation; a different scale of developer; and a different scale of opportunity for them, because of the very significant retail gain that they could make on the long-term future of Canary Wharf. That was more led by TfL but, again, I think we can be proud of how that relationship has been managed.

I think the variation, to answer your question, is really down more to the bespoke, individual characteristics of the transactions. However, as often, I think there are real learnings from these points and, indeed, in the latter stages of the Heathrow experience, we commissioned within the Department a lessons learned exercise—what could we take from this? Looking across the portfolio of transport projects where private financing contributions are involved, what do we take from those—HS2 is an obvious case in point, but there will be others—about how we should approach similar issues in the future?

Q40 Meg Hillier: Is that a public document?

Philip Rutnam: It is not a public document, no. It was an internal lessons learned exercise, but it said, yes, we need to make sure that early on in projects where a developer contribution is an issue, we clock the need to resource the project team appropriately. By and large, in the overall scheme for the project financing, these actually can be relatively small; but they require quite a high level of resource commitment and skill, so there was an issue there, and there was an issue about making sure that from the outset, and consistently throughout the project, we do not just identify and think through the legalities, but think through the motivations on the other side: who are the counter-parties we are dealing with; and how far are the motivations and objectives aligned? Inevitably they will not be entirely aligned, so how do we manage any misalignment? Those were the sorts of issues that came through.

Q41 Jackie Doyle-Price: It is a bit of a con, though, to describe the City of London corporation contribution as private sector funding, because ultimately it is all going to come back from business rate payers, isn't it?

Philip Rutnam: I think that is how it was presented in the Report. The City of London corporation is obviously not a private sector body. However, it has a significant resource base of its own, as will probably be known. I know that CLG decided to reinstate the business rate offset for the City of London corporation, but I think that was in recognition of a much wider range of responsibilities that the City of London corporation has serving the whole of London: everything from port health to Hampstead Heath, and various other things besides.

Q42 Jackie Doyle-Price: I used to write that propaganda, so I know all about it. But the reality is that that £250 million will be levied on business rate payers in the City. I am not saying that there is anything wrong with that, but first we should be honest about it and, secondly, we might learn from that in terms of securing private sector capital for capital infrastructure schemes. Ultimately, it has been sold to City business rate payers that this is going to be good for the City and that they have to pay that levy, so there is a lesson there; in fact, we could perhaps learn more from it if we did not put it under that private sector contribution.

Philip Rutnam: I am not responsible for local government finance, I am pleased to say, but I would observe that the largest contribution that business is making to this project, whether across the whole of Greater London or in the City, is through the business rate supplements.

Q43 Chair: We should not go into that rabbit hole of local government finance, because we would never come out.

Mr Rutnam, I would just like to capture one final thought about the whole evaluation and learning process of the benefits, and then evaluating as you get towards the end of the project. Is it not fair to say that the process of analysing what the benefits are should be

continuous throughout the project, and that once you have reached the end of the project you should then, pretty promptly, evaluate what has actually happened so that you can maximise the learning? Would you agree with that?

Philip Rutnam: Continuous, yes, but not necessarily entirely even. There is obviously a resource involved in that task. To take an example, the business case was revised quite intensively in the phase up to 2011 when the key final go decision was made at review point 4. We are planning, with TfL, to review and revise the business case now to take into account all the circumstances of the project as they are today, and also the latest forecast in terms of growth and so on. So there will be a review now, which goes to your point. It will happen; just not every year, as it were.

Q44 Chair: And when it is live and running—when it starts and you go live—will you then continue evaluating?

Philip Rutnam: The periodicity is important. Absolutely. There is already work under way, led by the joint sponsor team, which is a joint team reporting to Peter and me—to the Department and TfL—that is responsible for benefits realisation and evaluation. That work is under way. It is developing a plan for the evaluation of the project, so we can look forward to that.

Q45 Chair: Let's move on to the main risks. Although it is a reasonably good Report, it also says, on page 31, paragraph 3.12, that the schedule performance index shows that it is "slightly behind schedule": "In September 2013, 43.7 per cent of the work required for the programme was complete, against a target of 45.2 per cent". The cost performance index, referred to in paragraph 3.20, says, "the cost of work delivered has been higher than the budgeted cost of that work", so you are slightly behind schedule and it is costing slightly more than it should. This is probably one for Mr Wolstenholme. What are you going to do to make sure that this schedule is met on time and to cost?

Andrew Wolstenholme: Let me just tell you that the programme remains on time and on budget. Let me go back to September, when the Auditor General came to site. It was a time when they were recording a planned completion of somewhere around 42.5%. Since then, we have had seven months' active work. What that means is around 6 km more of tunnels and around £600 million of capital spent, and it means a considerable amount of progress on site. I am pleased to say that the index you referenced there—the cost performance index²—is now 0.99, which means that 99% of everything we said we'd do within that schedule we have achieved, and the cost performance index has gone up to around 0.95. There are many different dials that you look at to understand the current status and the future predictions of what major programmes look like. One other we look at is the confidence level that we have in delivering the programme to its end date of December 2018. Again in this period of time, we have strengthened that confidence index. We are now around 80% certain that this programme will be brought in on time, and in programmes of this size and scale, that is a very high level of confidence.

² Note by witness: This should say 'the schedule performance index'

From a cost point of view and within the funding envelopes—there are several indicators around the intervention points that we measure against—at the end of what we call SACR 10, which is the semi-annual construction report 10, we were £125 million below that first intervention point. So from both a cost and programme point of view, Crossrail is in a healthy place. We continue to monitor the risks as we go forward and we continue to make sure that we have completely transparent data for ourselves, Crossrail, and our two joint sponsors to make sure that that remains the case.

Q46 Chair: That is a mildly encouraging answer, but paragraph 3.10 says that when the construction of the civil engineering elements are completed and the programme moves towards the fitting out, the testing and the operational side, it is expected that the transfer of the responsibility from DFT to Crossrail will become more significant and that “Governance during this handover period is not described in the Crossrail programme agreements and the Department, Transport for London and Crossrail Limited are aware that they need to develop transition plans.” By when do you expect to have done that?

Andrew Wolstenholme: Let us talk about the risks that lie ahead. You are quite right to identify that when a programme of this size and scale is 50% complete, we clearly have to look carefully at those risks that are determined by the second half. Perhaps I can just describe those. We are now pretty much 75% through the commissioning of the tunnels. We have now to fit out the station boxes, lay the railway systems, integrate those and hand them over. The governance structure that is set up at the moment is serving the project very well. Both sponsors and the independent Crossrail board would agree with that.

What we have to do, and the early discussions have occurred, is to understand where that risk tips from a delivery construction and systems integration risk into one that is more dominated by the operation of the railway. The five staged opening milestones of Crossrail determine that, in early 2017, we will begin to run rolling stock from Liverpool Street up to Shenfield. Later that year we will run³ rolling stock from Heathrow into Paddington. In 2018, we will run the rolling stock in the new infrastructure in the central section. Some time between the end of 2016, therefore, and the start of 2018, we need to carry on the discussions. We need to begin to define how the governance programme should quite rightly shift between one that is managed and run by construction and delivery into one that is owned and operated by—

Q47 Chair: You plan to start those discussions in 2017?

Andrew Wolstenholme: No. What I am saying is that those discussions are already occurring. Howard Smith, who is my operations director and reports to me as the chief executive, also reports to Mike Brown, the managing director of LU in Transport for London. That is a very healthy place to be for the balance between delivering large complex construction and getting the discussion around how you start up a live operation. Five years out, there are lots of discussions going on about the transition. It is absolutely right now that I focus on delivering on the key delivery construction and system integration risks, and that the

³ Note by witness: This should say ‘In May 2018 we will start running’

health of the relationship between ourselves and the joint sponsors promotes the discussions over time to define when the transition of that governance process should begin.

Q48 Chris Heaton-Harris: There is a minor point in the Report which I was not going to comment on because it is positive. Congratulations on that because we have had you before us on not so positive occasions. It is about the PFI for the rolling stock. I wonder whether this signals that, once you came to an agreement that you are not going to buy the rolling stock on PFI, and Transport for London will buy it by borrowing money by some other method, in future projects you will not be using PFI quite so much, certainly for rolling stock?

Philip Rutnam: I can only speak for the Department. It does not really signal a change in philosophy towards PFI and the role PFI can play. We think that PFI can be a really valuable tool in the armoury for transport projects. Some of the benefits can be around the very tight incentivisation of the contractor to deliver a very high level of performance. It is one way of achieving that sort of outcome, depending on the market, so it will remain a tool that the Department will want to have and to use. The Mersey Gateway bridge, which achieved financial close just the other week, is a PFI project. The intercity express programme, which I mentioned earlier, is also a PFI project. We are very happy that PFI is being used in both those cases.

Q49 Chris Heaton-Harris: The intercity one was rather late, though, wasn't it, in delivering rolling stock?

Philip Rutnam: It took a little while, but the programme is absolutely on course. One of the reasons—this goes to the particular circumstances of the Crossrail transaction—why we were happy to support TfL's proposal that this transaction should not go down the PFI route is that one characteristic of PFI is that you have more risk of delay up front, associated with getting to financial close. The complexity of the transaction, the dependence on the state of the financial markets and so on can produce a risk of delay up front. We saw that in quite a big way with the Thameslink programme, which I talked to you about last year. In this case, TfL said to us, and we agreed, that ultimately we should not carry that risk in the project; we should take the risk of delay to the rolling stock out of the project because—this is the difference between Crossrail and Thameslink—the only trains that will go through the new Crossrail tunnel in the central section will be the trains delivered through this rolling-stock contract. To deliver the things that everybody is waiting for, come 2018 or 2019, we are critically dependent on the rolling stock; we cannot brook delay. Thameslink is a different story, because yes, new rolling stock is coming, but the existing rolling stock would also work through the tunnel. That was the key factor for us. PFI, however, remains in the armoury. I don't know whether Peter wants to add anything.

Q50 Chair: Peter, do you like PFI?

Sir Peter Hendy: We proposed this arrangement to the Department for precisely the reason that Philip gave, which was that, had there been any delay in letting the contract, we would have had a tunnel with no trains, and that would have been very—

Q51 Chair: We've had hospitals with no patients and aircraft carriers with no jets, so I can't see what's odd about that, frankly, but I can see why some taxpayers might object to it. We discussed earlier that TfL has a very high level of expertise and skill and that the DfT has a lesser degree of skill. Is the reason why TfL is more sceptical of PFI simply that you know more about what goes on? Were you around at the time of the London Underground PPP?

Sir Peter Hendy: I'm afraid I was.

Q52 Chair: That was the one where they spent £29 million on one law firm—many others got similar amounts—and £6 million on consulting engineers assessing the condition of the track, wasn't it?

Sir Peter Hendy: I am not familiar with those figures; I am familiar with the hundreds of people we were able to dispense with when we took the arrangements apart, who just spent their time arguing with each other. The observation I would make is that it can be a very satisfactory method of funding projects, provided that you understand what you are letting yourself in for. Of course in the case of the PPP, nobody understood what condition the assets were in. The measurement of the condition of the assets and their performance was unestablished at the time the contracts were let, and the consequences were something like what you described. But that is all by the bye, because what Philip described in this case is entirely accurate. That is that we couldn't wind up, and none of you would have wanted us to wind up, with a brand-new tunnel but no trains.

Q53 Stephen Barclay: We had a hearing some time ago with Network Rail. It had been identified by the NAO that they were building stations, rather than with a modular design at much cheaper cost, bespoke and therefore at higher cost. With Crossrail, it is a very favourable report. You are on track to deliver value for money. Can you just flag up the areas that you have identified where we can drive cost savings elsewhere from working smarter, using innovation and doing things in a way that is different from the way they have been done in the past?

Andrew Wolstenholme: We are picking up a lot of live data as we go along. It is a very large programme. We spend somewhere around £120 million in a four-week period. One of my personal success criteria on a project is that we create the environment in which organisations, particularly first-tier and second-tier suppliers, can share their ideas and innovations. I think they will be very pleased at a number of different points along the way to share those lessons. If you look at the raw tunnelling we have, the combination of a high-quality specification, time to design, supply chains that are funded to deliver and high-quality machines give you good outputs. I am very proud of the outputs we have achieved on Crossrail. If you combine that with an ethos that allows you to upskill a sector and you put the skills and the technologies together, you can get high-value outputs. Certainly, what we need to do is be responsible for putting all these in a learning document.

Q54 Stephen Barclay: Has that learning document been produced as yet?

Andrew Wolstenholme: No, it hasn't, but as we go along, before the completion of Crossrail, we need to ensure that that learning is available. Certainly, I work in an industry where we are transferring those lessons already, whether it is other major programmes, industry bodies or not, those lessons are being learnt. In terms of design, this industry is picking up the lessons learnt over the past decade or so—the use of modularisation, the use of offsite manufacture. There are plenty of very good examples of where we are doing that. If you look at Custom House station for instance, it is being built in the Midlands—almost completely pre-manufactured. That is not only generating jobs in and around the Derby area, it is also showing the rest of the industry how you can be more efficient and how you can move those innovations across the supply chains and into future projects. I think that Crossrail is a very good learning opportunity. Of course, my first priority is to ensure we deliver on time and to cost and we deliver a very high quality and do so safely, but we also have a wider responsibility to leave a legacy, not only in skills and business opportunities, but in the innovation and the learning. We feel that we have a responsibility to ensure that learning is transferred as we go along.

Q55 Stephen Barclay: That is very helpful, and yes, your first priority is to deliver the project. Who, Mr Rutnam, is the named individual in your Department whose job it is to help socialise innovation across different projects? Of course, it will be being followed in some guises, but usually it can be pushed harder. Who has been tasked with doing that? Who is the individual?

Philip Rutnam: I would point to the head of the project and programme management profession in the Department, who is Michael Hurn, who came here when we talked about the Thameslink programme. He is the head of profession for PPM in the Department. He knows all about Crossrail. He is now working on HS2. Part of his job is to build organisational learning for us as a client and sponsor of projects from one project to another. Part of the work we are doing in the Department around PPM and the community of practice in PPM is about taking learning across the piece.

Q56 Stephen Barclay: Do you have in his personal objectives a stretch target—a monetary saving—for what you are doing? Some of it will be happening by osmosis, but what I am interested in is whether it is being pushed as aggressively as it might. This may be something, again, for a note, but I would be quite interested in what saving value you attach to our ability to innovate and innovate more quickly?

Philip Rutnam: I will need to come back to you on the objectives point. What I would say is that in HS2, which is an obvious case in point, we have embedded very clearly a challenge to the HS2 group in my Department and to the HS2 Ltd team around what is described as value engineering. That is a lot of the stuff Andrew has been talking about—modular approach to construction, offsite construction, building things, getting them right once and getting the right trade-off between quality and cost. That is embedded and—

Q57 Stephen Barclay: I would expect it with High Speed 2—it is a flagship programme. What I am driving at is the routine programmes—some of the smaller schemes—which are less visible, and how we push it more aggressively into those.

Philip Rutnam: It is also embedded, for example, in the tasking of the Highways Agency. The chief executive of the Highways Agency is very focused on that point. I think whether we do enough of it is a fair challenge to us, and in particular, whether we do enough between different modes.

Q58 Stephen Barclay: I find that whenever I look at a transport project, the costs seem astronomical. I know there is a reason for some of those, but a cycle lane is, I think, around £300,000 to £400,000 a kilometre if it is with curbs. That is what I was quoted, which seemed remarkably high. When I wanted a sign outside a village hall, I was quoted £30,000—I raised that with you previously—and it ended up costing £10,000. It is literally a triangle on two metal poles. There is the big ticket stuff but there is also the routine. I wondered whether the Department could look again at how aggressively we are looking at both the high-end civil engineering innovation—what is down the track and how we capitalise on the expertise of the team on Crossrail and others—but also some of the business-as-usual practices and whether we are using innovation as much as we could. Anecdotally, I do not see much evidence of costs being driven down.

Philip Rutnam: May I take that challenge away? My anecdotal experience is a bit more positive than yours. For example, I have attended sessions with TRL, which is a great research organisation in this area, when it talked about different approaches to cycle lane construction, which could greatly reduce costs because if you do not have a concrete separator you do not need so much drainage, which tends to be one of the things that drives up costs. There is work going on, but let me take away the challenge of whether we can articulate to you how far we think we have got.

Q59 Chair: We are running out of time before a vote that is expected at 4 o'clock. In fact, we are expecting two votes, so I would like to run to the wire and ask hon. Members to come back as quickly as possible.

Mr Rutnam, one of the other risks that this project faces is, when it is complete, integrating it with the remaining existing rail network. That is quite a big piece itself. Will you explain what you are doing to manage and mitigate those risks?

Philip Rutnam: There are several dimensions to that. One is transitioning services from existing franchised operators to the new Crossrail train operating company, which Transport for London is in the midst of procuring at the moment.

Q60 Chair: Out of interest, when will the operator be appointed?

Sir Peter Hendy: This summer⁴.

⁴ Note by witness: This should say 'autumn'

Philip Rutnam: The first services to transfer will be in the Greater Anglia franchise and I think from May 2015 those services will migrate to the new Crossrail train operating company. Although they will not be running over the Crossrail infrastructure, the services will migrate. Another plan—I am afraid I cannot remember the date⁵—is for Great Western services to migrate to the Crossrail train operating company. Part of the management is migration from our existing franchised operators to what is known as the CTOC.

In the longer term, when the CTOC is up and running, and Crossrail is on stream as an activity, if the central tunnel area is operating in time, significant technical integration will be needed between the operations of the Crossrail train operating company and all the other train operating companies operating over the national rail infrastructure at either end of the service.

My understanding is that the technical planning of that is quite well defined. More work will be needed, but I have not seen it to date as one of the top risk areas. However, Andrew or Peter might want to comment.

Andrew Wolstenholme: You can break down those interfaces in a number of different categories, one being operational. Just from a delivery point of view, there are some technical interfaces between coming out of our tunnels going west from the Paddington area on to the Great Western line, and that technical interface we have bought through our signalling supplier to make sure that we understand how you can configure it so there is a seamless operation.

The technical interfaces going out on to the East Anglian line and on to the north Kent spur are much simpler, but very much part of our organisation is to overview the £2.3 billion of work that Network Rail is doing as part of the works on the existing network and for us to manage the technical interfaces such that, when we test, commission and do the dynamic testing, there is a seamless operation that allows Peter, the train operating company and the new rolling stock to run seamlessly across those technical interfaces without concern.

Q61 Chair: Peter, do you have anything to add?

Sir Peter Hendy: Just briefly.

Q62 Chair: Actually, before you do, the Division bell has just rung. May I ask you to hold that thought? We will resume in 20 minutes if we can, and if hon. Members will try to get back quickly after the second vote, that would be of great assistance.

Sitting suspended for a Division in the House.

On resuming—

⁵ Note by witness: The date is December 2017

Q63 Chair: We are sorry for the delay—we were not quorate, but we are now, thanks to the superb, estimable, Mr Heaton-Harris, whose presence we are delighted to have. Sir Peter, can we carry on from where we left off? You have had lots of time to think of an answer to my question.

Sir Peter Hendy: Yes. You were asking about the interaction with the national railway network. I was going to remark that I have a regular meeting, as you might expect, with Andrew and Howard Smith, who is his Operations Director; I am joined by Mike Brown, who runs the Underground, London Rail and others. We have, of course, discussed and agreed what sort of characteristics we need from the new train operating company. We are also discussing the sort of control methods that might be used, because this is an interesting railway: the central section is high frequency, with 24 trains an hour, but the trains permeate, as you remarked, on to parts of the national rail network and are relatively low frequency. That will require some dexterity in the operator and we have discussed those criteria, which were in the criteria for the procurement of the operator. As the authority letting the franchise, we are actively discussing what we are expecting to see in control, because at the end of the day the objective is not only that the Crossrail train service is as good as it should be, but that it is—

Q64 Chair: Its optimum.

Sir Peter Hendy: Yes, and that its interaction with the national railway network is also properly understood and positive.

Q65 Chair: Are you confident that you can articulate sufficiently well what you require from an operator in order to get that optimum performance out of the new network and its integration with the existing network?

Sir Peter Hendy: Yes, I am actually. Take, for example, our experience with the East London line, where the service goes south of New Cross Gate to Crystal Palace and West Croydon. For that service extension—the old East London line was a self-contained unit—our experience is that that operation has improved the reliability of the rest of the trains on the national railway network using that particular piece of the network. So if we get it right, we can have a positive effect, by not only delivering the Crossrail train service correctly, but facilitating the rest of the national railway network where the two interact together.

Q66 Nick Smith: By getting it right, do you mean extra investment in signalling or ticketing, or what?

Sir Peter Hendy: It is actually about the operating philosophy. What you effectively have in Crossrail is a metro-type service. You do not go down on any of my lines and expect trains to run to a timetable; you expect them to run frequently and reliably. That has to interact with the outer parts of Crossrail, where, certainly if you go beyond Slough, it will be a timetabled service. You will go for a train at six minutes past six and expect it to be there at six minutes past six. The dexterity in the control of the service that you need as a

consequence is unusual, but not unique. That is what we have already had to do on the East London line. The core of the East London line runs more than 20 trains per hour, but a few of them permeate on to the national railway network, and if you got that wrong, you would get in the way of timetabled services going further. It is not unique, but certainly, when we appoint an operator, we have discussed in great detail the criteria that we will use to ensure, and I will be expecting to see, that that operator is able to demonstrate its mastery of the techniques that will enable the service to run well.

Q67 Chair: Can I step back a little and ask about the original scope and the extent to which the scope has changed—or rather, the extent to which the scope has not changed? Why do you think there were so relatively few scope changes in a project of this size? Was it due to having two sponsors?

Sir Peter Hendy: Oddly, we were discussing this while you were voting. For my part, one of the reasons is we have had a very harmonious relationship with the Department on this project, which I think is because we are all adults and we are trying to make it work; but one of the things I would attribute it to is that actually this is not some greenfield railway where you have a choice of where it might go and how you might construct it. Once you have chosen the route, which is almost self-evident—it is self-evident to connect Paddington and Liverpool Street, if that is what you intend to do with these suburban services—then fitting it within the rest of the infrastructure in central London does not present unlimited choices; it is quite obvious what you need to do. In the same way, maximising the train service provision is pretty obvious.

I would hope that it demonstrates that Philip's Department and ourselves have worked together, but it is also because actually there are not many choices to be made on this. To define it sufficiently for the Bill to become an Act and for the cost to be understood for it to be funded, by the time you have done that there are not a great deal of choices left. There are some choices about how you do the job—Andrew was talking about innovation—but not about which job you do.

Q68 Chair: That is an interesting answer, but I was thinking more about the potential threat to the project from one of the sponsors withdrawing. The sentence in the NAO Report that caught my eye, on page 8, is: "Either sponsor could withdraw from the programme and the programme could be cancelled up until the final review point, which concluded in April 2011. We"—that is the NAO—"believe that this stopped the review points from becoming a formality and meant that real progress had to be made." Do you think that that is true?

Sir Peter Hendy: Yes. I would have said that, actually, from our point of view, if it had become evident that the project was something different or would cost something different or the scope was going to be wildly changed by the action of the other sponsor, at that stage we did reserve the right. I do not—

Q69 Chair: So having an extra sponsor that was essentially autonomous helped. There are many projects where the scope has not just crept, but landslid a very long way, yet

the project sponsors have grimly continued with it as if it was still okay, when plainly it was changing out of all recognition.

Philip Rutnam: I do agree with Peter. In this case, having two sponsors has had some real benefits. There have inevitably been some downsides as well along the way—or what we probably felt were downsides in terms of additional complexity and potential tension between objectives—but the process of working through those and resolving them has helped to bring specificity and clarity to the project.

You asked about the limited number of scope changes. I would attribute that above all to the quality of the preparation. Whether it was two sponsors or one, it has been the quality of the preparation phase—giving the project a really sound footing—which has enabled it to get off to such a solid, professional start and have such a stable environment.

Q70 Chair: Sorry to labour this. You said whether two sponsors or one, but the point the Report makes is that the very fact that there were two sponsors stopped the reviews from becoming a formality and meant that progress had to be made. That is not always the case in major projects, is it?

Philip Rutnam: As I say, there have been real benefits from having two sponsors. However, the role of the two sponsors individually has to be meaningful; if it is not meaningful, you cannot summon another sponsor into existence. If you do not have two sponsors, what do you look for? I think the underlying thing that I am trying to get across is that it is the quality of programme preparation.

I would add one other detail to what is said in the Report. Another thing that made those review points far from a formality was the spending review and the fiscal pressure and discipline brought by the Treasury and the spending environment.

Q71 Chair: It is an interesting point that you had to have a big recession and crash, essentially, to get this sort of discipline. There was a lot of effort to cut the cost—indeed, the Report says in paragraph 14: “Both sponsors and Crossrail Ltd did well to reduce construction costs when they threatened to escalate in the early years of the programme, although they were facilitated in this by the spending review 2010 and the recession.” Many of the things done, such as value engineering and resequencing of the programme, were always available to do anyway, absent any crash or recession. Why did it take a very tight spending programme and a financial crash to make the Department focus to the extent that it did?

Philip Rutnam: I was not in this role during that period, so I can only speak on the basis of what I have observed and learnt since. I think it is not correct to say that the recession did not make any difference. The recession created some significant opportunities in terms of the pressure—or rather, lack of pressure—on contractor prices, which then could be taken through the project.

Q72 Chair: Do you mean the lack of upward pressure or the lack of downward pressure?

Philip Rutnam: The fact that the inflation environment changed between 2008 and 2010-11 did create a new context for the project. As the Report says, the sponsors, and indeed, Crossrail Ltd, responded very well to that environment and locked into the project a more testing and challenging settlement—funding environment—for it. Andrew should speak to the specifics of the changes that were made during that period as he was actually involved.

Andrew Wolstenholme: I was not quite involved, but I know some of the detail. Can I put my view on the two years it took to prepare in order to get the project development agreement? To define accountabilities, to define scope and to define the mechanisms where funding interventions came in place were all very helpful, and no doubt the quality of debate is always more useful when you have two sides to that. Review point 4, beyond which the accountability for making the day-to-day decisions then landed on the independent Crossrail board, was really determined by the quality of the structure that was set around it. That is a very good precedent and a very good lesson learnt.

Something else that came together just before the comprehensive spending review in 2010 was that that was also a point in time where we were getting market information back from our first-tier suppliers. In being asked the question, “How could you find cost savings?” we were then able to do some realignment of the programme and to offer method-related savings that we were then getting back from our supply chains that would reduce interface risk, at a very limited level would reduce scope, and would respond to the market conditions then, where inflationary pressure was down and we had an industry sector that was very keen to win work. If you add all those together, there was an alignment of circumstances that allowed us, through the facilitation of the comprehensive spending review, to take not an insignificant amount out from the funding envelope that, at that time, was £15.9 billion, and we then came to that review point of £14.8 billion.

Sir Peter Hendy: I was there then and, of course, you must not miss the fact that in reducing the cost of the project, we also extended the time scale. The original assumption was that you would deliver the benefits that are widely acknowledged to exist in Crossrail as soon as you could, but it became evident that the rescheduling of this work would produce you a lower cost. I think the sponsors took an adult view about cost versus time scale, and what we have adopted is the most efficient time scale, rather than the quickest.

Q73 Chair: Although, as the Report says, “the schedule for opening the railway has been extended” and that “had little impact on the benefit-cost ratio, but the sponsors’ decision not to extend the payment schedule to Crossrail Limited has resulted in a large cash balance, which could have been put to more effective use.” What else could you have done with the money?

Philip Rutnam: In fact, it was always intended that the project should be expected to carry a positive cash balance, so one of the design features of the project from quite an early stage was the creation of a sponsor funding account into which both TfL and the Department pay, which is ring-fenced as a way of funding the project, and was intended from the outset to have a positive cash balance in it.

The decision to have a funding mechanism of that kind was recognised as carrying an opportunity cost, because it means that the Government, and indeed, TfL, are providing funds that will then sit in a bank account earning a lower rate of interest than the Government pay for the borrowing they make, which is partly funding the bank account. However, the opportunity cost was judged to be more than offset by the very significant benefits of giving certainty to the project about its cash flow and much more flexibility than is standard in the way that public sector projects operate to decide when it should incur spending. Crossrail Limited has indeed used that opportunity sometimes to bring forward items of spending in order to take advantage of opportunities being presented by the supply chain. So there is a very strong rationale for having the sponsor funding account as an arrangement. Shall I comment on the payment scheduling point, specifically?

Q74 Chair: If you would like to, yes.

Philip Rutnam: When the reduction was made in the total budget for the project back in 2010-11, as the Report says, the payment schedule was not adjusted. However, the amount that the Government, TfL, were to put in was adjusted, so that the amounts were reduced even though the schedule remained unchanged. From what I can discern, that was a conscious choice not to change the schedule, not least because the parameters within which the sponsor funding account was expected to operate in terms of the amount of cash it should hold in relation to the projected expenditure on the project was still being met. It was the decision at the time not to adjust the schedule because the sponsor funding account would still only have as much in it as was judged necessary.

Q75 Chair: Thank you. You may think that you have answered this question already in light of your comments about the quality of preparation, but what are the main lessons that you think the Government can learn from Crossrail for the delivery of major projects more generally?

Philip Rutnam: I think there are many lessons to be learned from a story thus far of success, just as there are lessons to be learned from stories that are less than successful. We should not forget that Crossrail still has half the project to finish, and we need to bear that in mind.

The things that really stick in my mind are around getting the programme on to a sound footing, so a really high-quality process before you let the contracts about allocation of risk, roles and responsibilities. There is also the quality of documentation, which in this case has been extensive legal documentation, to define the respective roles and responsibilities, first of the two sponsors—agreement between us—and then between us collectively and Crossrail Limited. So it is getting a really detailed definition of what the programme is expected to deliver, the sponsor's requirement, its scope, getting that right and how the programme is good to operate in terms of governance—that is getting the programme off on a sound footing.

The second big thing that I would identify is getting the right team in place, a skilled and capable team, not least in the delivery entity, Crossrail Limited, but the quality of the team needed on the sponsor side also needs to be high. The third thing is around the money:

getting a really robust baseline and funding envelope budget for the project, which reflects an appropriate—that is, high—degree of challenge. That needs to be set at a tough level but it also needs to be realistic and achievable.

The parties joined together need to feel at the end of the process of setting the budget that there are no more avenues to be pursued to reconcile what can be known about the project in terms of its scope and risk with the resources available. Those would be my big three lessons.

Q76 Chair: Thank you. That is very thorough and clear. You are essentially saying that before you set out to do something you should know what you are going to do, who is going to do it, who is responsible and whether you have the money for it or not, before you start. It is not rocket science, is it?

Philip Rutnam: As we have discussed before, often the real essence of these things is pretty basic. Applying them in an environment as complex as this is the challenge, but you must not forget the basics and you must hold yourself rigorously to applying them.

Q77 Chair: I realise this is not just a question for you. The whole of Government can learn from what you have just said. What is the whole of Government going to do to ensure that it learns from what you have just said? I realise this is probably a question for Bob Kerslake and Jeremy Heywood.

Philip Rutnam: Now you are asking me about the whole of Government. I think the whole of Government is actually doing a lot. In government we tend to get a bad press.

Q78 Chair: My point is that you rather than anyone else, having gone through all of this in DfT, are the potential champions and apostles for this non-rocket science approach. You know more about it than anyone else, with the exception of the people who worked on the Olympics I suppose. Rather than asking about the whole of the rest of the government, what are you doing to proselytise this sensible way of working across the rest of Government using the facilities you have at the centre in the Treasury, the Cabinet Office and the MPA to make that happen? You should be doing that, and they should be encouraging you to.

Philip Rutnam: And indeed we are. We are doing various things. Off the top of my head, things that occur to me immediately are that we are very active participants in the major projects leadership academy. I have spoken to it myself. It is one of the main training and development vehicles for people within Government who are tasked with leading complex high-risk, high-value projects and programmes. We are very major participants in that. We put a lot of effort into it and put a lot of people through it.

Apart from my time running the Department, there is a bit of time I can devote to corporate civil service development, and my particular area of focus is on what could be described as commercial skills, which include how we as a Government can manage our interactions with private sector suppliers better and how we can run big projects and programmes better. I am involved in various taskforces and review groups around that—I can

go into more detail if you like. We are actively involved. I have to say that I regard my task, first and foremost, as ensuring we deliver what we have to do in DfT, which is pretty challenging.

Q79 Chair: I have one other question on that specific point, which is: what are you going to do to ensure that the other projects that you are responsible for, such as HS2, go through a similar review process to that which Crossrail has experienced?

Philip Rutnam: We have already just had, as you will have seen, a big review of HS2, which was conducted by David Higgins. It does not have the formal status of one of the review points identified in the NAO Report on Crossrail. Indeed, it would precede review point 1, because it is before the Bill has Royal Assent. We are already structuring the HS2 programme to absorb fully the lessons from Crossrail and other projects that have gone well or not so well. You will have seen that. We have made some important appointments to the skills and capability team at HS2 Ltd, and we continue to strengthen the team in the Department. There is inevitably more to be done on defining the programme in HS2 to that same level of specificity, because we are at a much earlier stage.

Q80 Chair: I have one more question about skills. Paragraph 13 says: “As with other Department for Transport programmes, the Department’s senior representatives overseeing the programme have changed frequently, reflecting the number of programmes that the Department is sponsoring”—it is not obvious to me that that ought to be a sequitur; if you have the right number of senior representatives overseeing programmes, it should not necessarily follow that they change frequently—“and a scarcity of staff with the right skills and experience.” It goes on to say: “The impact of this has been lessened”. There has therefore been an impact. What are you going to do to ensure you get to the point where you have all the skills and experience you need to manage the number of projects you have on the go, without having to make these sorts of regular rotations?

Philip Rutnam: There are only two things that we can do: recruit people and grow people. I have people who are very good, and I can grow them to be ready to take on more roles like this. Sometimes I can recruit them. We are doing both. It is, I completely accept, a work in progress. Since the west coast fiasco, we have put an immense effort into growing a project and programme management discipline in the Department, into growing a cadre of senior responsible owners for big difficult projects and into growing a feedstock—a kind of supply chain—of people a level or two down in the organisation who are ready to do that.

We have also, I am pleased to say, managed to secure some more flexibility from the Treasury and the Cabinet Office on pay. Even though we cannot be fully at market rates, we can offer more competitive rates for certain projects and programmes for people who can come into the Department. It is all about recruitment and growing people. We have spent all this time talking about trains and tunnels, but we are fundamentally a people business. I need people of the first calibre to discharge our role.

Chair: Thank you, Mr Rutnam. I invite Nick Smith to ask a few questions about rolling stock, and then I think we are probably done.

Q81 Nick Smith: I am pleased Bombardier is going to be building the trains. My first question is for Mr Wolstenholme and Sir Peter Hendy. Given the collapse of the Bombardier contract for signalling for London Underground, can you both be confident that Bombardier will deliver the Crossrail trains on time?

Sir Peter Hendy: There is quite a lot in that question. First, Bombardier is a huge international company. Their record in building rolling stock is demonstrable. There has indeed been—although the process that Andrew's people ran took only the right amount of account of it—a lot of pressure about the future of the works at Derby. We operate several fleets of trains recently built by Bombardier, of which the current Victoria line fleet is the best performing fleet of trains we have ever had on the Underground. Their mean distance between failures is larger than any other fleet that we have ever had in the history of the Underground.

I am sure Andrew will want to comment on this, but the procurement process that he has run for the trains for Crossrail was conducted entirely properly. The pre-qualification of bidders for that contract was started at Christmas 2010 and the pre-qualification was announced at the end of March 2011. It would have been at that stage that you could have taken into account that supplier's record in doing other business. That was before the ATC contract for the sub-surface lines had been let. That was not let until June 2011.

Having said that, the process for the sub-surface line signalling has not been a happy one. Referring to some of the earlier comments about learning lessons and taking decisions as you go, when it became apparent in the autumn of last year that the Bombardier signalling contract was missing its timing points, and that the physical manifestation of the signalling had not turned up on the test track at Old Dalby as we were promised, we took the view that it was not going to deliver to the time scale, or indeed the benefit, or in the way that we had been promised at the time the contract was delivered, so we proposed to the TfL Board, and they agreed, that we would cease that contract. That time scale was almost on top of the properly taken decision process for the Crossrail rolling stock. It could not be taken into account and was not taken into account.

When we procure future rolling stock and future work for which Bombardier might pre-qualify, we will be able to take into account the fact that on one important contract we came to the view that they were not able to deliver something that we had been promised. In the appropriate way in which the EU procurement regulations allow you to do so, we will take that into account. As it happens, today we have issued a press notice saying that we are going to procure up to 39 or so electric trains for the West Anglia service and the service from Gospel Oak to Barking. If Bombardier decide to bid for those, there is no doubt in my mind that in the part of the procurement process that asks questions about the previous satisfactory delivery of the supplier, we will rate appropriately the fact that, although their rolling stock that we are operating is extremely good, as I have talked about, they also in our view were going to fail to deliver an important signalling contract.

Q82 Nick Smith: Mr Wolstenholme, very quickly, are you confident these trains will be delivered?

Andrew Wolstenholme: Very quickly, I am very confident that the process we have followed, which, as Sir Peter says, started back in 2010; that, as we have discussed, also went through a transition point of different funding models; that culminated at the back end of last year with a selection process against the EU procurement regulations; and that was conducted in a highly professional and systematic way, has resulted in Bombardier being delivered with this circa £1 billion capital project. We are very comfortable with the competitiveness of the project. Every part of the process that separated out the technical content from the commercial content has culminated in an outstanding procurement. I personally have no problems at all with this being delivered to Bombardier.

Quite apart from the thousand jobs that it supports in the Derby area, both in Derby and the Old Oak Common depot, what Transport for London and I have to do is to take any lessons learnt from other parts of the fleet that it has provided to Transport for London. Mike Brown, managing director of London Underground and Overground, and I visited Bombardier to launch the start of their manufacturing process. I am entirely content that, first, we have a benchmark procurement process supported by two joint sponsors; and secondly, the result and the output will be very beneficial to Crossrail and will deliver value for money for the taxpayer.

Chair: Gentlemen, thank you very much. It has been a very interesting hearing. This is the first NAO Report on Crossrail. It is at least one and a half times the size of the Olympics Report, so I am sure we will be returning to it in due course. In the meantime, thank you very much, and congratulations on what you have done so far and for your hard work.