



House of Commons
Committee of Public Accounts

Crossrail

Eighth Report of Session 2014–15

*Report, together with the formal minutes
relating to the report*

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Committee of Public Accounts

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The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the internet at www.parliament.uk/pac. A list of Reports of the Committee in the present Parliament is at the back of this volume. Additional written evidence may be published on the internet only.

Committee staff

The current staff of the Committee is Sarah Petit (Clerk), Claire Cozens (Committee Specialist), James McQuade (Senior Committee Assistant), Ian Blair, Sue Alexander and Jamie Mordue (Committee Assistants) and Janet Coull Trisic (Media Officer).

Contacts

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Summary

The Crossrail programme is proceeding well and is on course to deliver value for money to the taxpayer. The joint sponsors of the Crossrail programme, the Department for Transport (the Department) and Transport for London, are working well with the delivery organisation, Crossrail Limited, to deliver the programme, which at present is broadly on schedule and being delivered within budget. The programme provides an opportunity for the Department and the rest of government to learn valuable lessons about delivering major projects, such as the importance of careful early preparation. However, construction is not yet complete, and considerable risks remain in delivering the programme by 2019, particularly managing the transition from building the railway to operating it, and delivering the Crossrail trains. This project also raises questions about how government compares different transport projects when making its investment decisions.

Conclusions and recommendations

1. The Department and Transport for London are jointly sponsoring the Crossrail programme to deliver a new rail service for London and the South East. When complete, the railway will run from Reading and Heathrow Airport in the west, to Abbey Wood and Shenfield in the east. The programme involves construction and improvement works costing up to £14.8 billion, including: building a new underground railway across central London; improving existing tracks to the east and west of London, and building and upgrading stations. It also includes buying a new fleet of trains at a cost of £1 billion, and appointing a new operator for the service. Crossrail Limited is delivering most of the programme, with Network Rail undertaking the work on existing sections of railway.
2. **Crossrail is a textbook example of how to focus on the essentials of programme management, including defining a realistic scope, establishing a management team with the necessary skills and securing the required funding.** Two years of planning took place before the construction programme began on Crossrail, allowing the scope of the programme to be well defined, resulting in only a handful of subsequent changes being required. Roles and relationships were clearly established in the programme's founding agreements, and Crossrail Limited had to pass the sponsors' early programme reviews to prove it had the right skills and capabilities in place. The current funding of £14.8 billion for construction work was agreed after a series of early examinations into costs, partly driven by the 2010 spending review.

Recommendation: *The Department should capture the lessons it has learned from the Crossrail programme and apply these to its other projects, most notably High Speed 2. It should also promote the lessons from Crossrail, which are applicable to other major projects, widely across government.*

3. **Transport projects are assessed using benefit-cost ratios that do not capture the full benefits, thereby understating the case for investment.** The Crossrail programme followed standard practice for transport investments by developing two benefit-cost ratios. While one included an assessment of some wider economic impacts, such as increased productivity from greater clustering of firms and labour market effects, the ratio used in deciding whether the project should go ahead excluded these and other measurable benefits, such as changing property values or land use. Crossrail Limited and Transport for London have been researching how to develop more robust estimates of these wider benefits, which are challenging to measure.

Recommendation: *The Department needs a clearer understanding of the wider economic benefits of transport projects which should be included in its investment decisions.*

4. **The full rationale for proceeding with Crossrail was not made clear.** The business case for Crossrail had a benefit-cost ratio of less than 2:1, and focused on the need to provide transport for a rapidly increasing population and to avoid choking economic

growth in the South East. It was not made clear that the Department also took into consideration factors such as the better use of land in East London when deciding to invest in the Crossrail programme, rather than alternative projects elsewhere.

Recommendation: *The Department should clearly set out how it weighs up different factors, including the benefit-cost ratio, in its decision making, and apply consistent criteria to appraising the projects in its portfolio.*

5. **Smaller transport projects have access to fewer resources and less expertise making it more difficult for them to secure funding from the Department.** The Department has a portfolio of both large and small projects across the country. However, small projects appear to be at a disadvantage, despite some of them having very high benefit-cost ratios, as they find it harder to secure funding. This is partly a result of local authorities having differing levels of skill and capability to develop business cases, and a lack of resources compared to central government to secure help with this.

Recommendation: *The Department should share its data and expertise in assessing transport projects with local authorities to strengthen the relative case for smaller projects.*

6. **The Department cannot maximise contributions from private sector beneficiaries of transport projects if it does not fully understand the benefits that projects will bring.** The Department did not fully realise how the Crossrail programme would benefit London businesses. As a result, it had mixed success in securing the contributions it had negotiated with businesses. While Heathrow Airport Limited will now only provide £70 million, less than a third of the funding originally agreed, the Department has been more successful with London businesses where the benefits of the project have been better understood and explained to the beneficiaries.

Recommendation: *The Department should establish and use a better understanding of the wider economic benefits of transport projects to help it to maximise contributions from beneficiaries of future transport projects.*

1 Programme management

1. On the basis of a Report by the Comptroller and Auditor General, we took evidence from the Department for Transport (the Department), Transport for London and Crossrail Limited on progress in delivering the Crossrail programme, and the risks that remain.¹

2. The Department and Transport for London, have jointly sponsored the Crossrail programme since the introduction of the Crossrail Bill to Parliament in 2005. Crossrail Limited is delivering the programme which involves:

- Construction and improvement work costing up to £14.8 billion, including building a new underground railway across central London, nine new stations and improvements to 31 existing stations, and upgrades to existing tracks on the western and eastern branches;
- buying a fleet of new trains and a maintenance depot, with an estimated cost of £1 billion; and
- appointing a company to operate the service.²

3. Half of the infrastructure work is now complete, which is just behind schedule, but Crossrail Limited remains confident that it will meet the planned delivery date. Forecast costs remain within the available funding of £14.8 billion.³ Crossrail Limited told us that in recent months the programme's performance against cost and schedule targets had improved, as the work that had been delivered was only 5% over budget and 1% behind schedule.⁴

4. The witnesses attributed the success of the programme thus far to the fact that the actions taken early in the programme followed the basics of good project management. The Department highlighted the benefits of creating a detailed scope and well-defined roles and responsibilities, getting a skilled and capable team in place, and getting a robust cost baseline and funding agreed.⁵

5. Only a few changes have been made to the programme's original plans, which the Department attributed to the quality of early preparation.⁶ Transport for London highlighted that there had been relatively few choices available when, for example, considering Crossrail's route, and that it might be more difficult to achieve such clarity on an entirely new railway.⁷ Crossrail Limited considered that the programme's set up had been strengthened by preparing detailed programme agreements, and through the rigorous sponsor-led programme reviews that had been undertaken before Crossrail Limited were

1 [C&AG's report, Crossrail, Session 2013-14, HC 965, 24 January 2014](#)

2 [C&AG's report, para 2](#)

3 [C&AG's report para 2](#)

4 [Q 45](#)

5 [Q 75](#)

6 [Q 69](#)

7 [Q 67](#)

granted accountability for day to day decision making.⁸ The current funding of £14.8 billion for construction work had been agreed after a series of early examinations into costs. The Department noted that the 2010 spending review, the fiscal pressure and discipline brought by HM Treasury, and the austere spending environment had been important factors in bringing down costs.⁹ Crossrail Limited referred to its engagement with contractors to identify cost savings, and the role of a competitive market in reducing programme costs.¹⁰

6. We asked the Department whether other projects, such as High Speed 2, would be subject to the sponsor-led review process applied to Crossrail. The Department told us that the High Speed 2 programme was being structured to absorb fully the lessons from Crossrail and other projects, and it was already appointing a skilled and capable team. The Department considered that inevitably there was more to be done to define the High Speed 2 programme to the same level of detail as Crossrail because it was at a much earlier stage.¹¹ In terms of learning lessons from Crossrail more widely, the Department noted that it was a very active participant in the Major Projects Leadership Academy, which trains and develops people to lead complex, high-risk and high-value projects. In addition, the Accounting Officer was involved in various taskforces and review groups which look at how government can better run big projects.¹²

8 [Q 72](#)

9 [Q 70](#)

10 [Q 72](#)

11 [Q 79](#)

12 [Qq 76-78](#)

2 Appraisal of transport projects

7. The Department's rationale for investing in Crossrail was closely linked to the benefits the programme is expected to deliver, with the need to provide public transport for London's growing population aligning with the main benefits of passenger travel time savings and congestion relief.¹³ The benefit-cost ratio was 1.97:1, which the Department regards as medium value for money.¹⁴

8. In line with HM Treasury guidance transport projects also include a second benefit-cost ratio, taking account of wider economic benefits in addition to the direct transport benefits, which is calculated but is not used as the basis of investment decisions. The Department estimated in 2011 that the benefit-cost ratio increased to 3.1:1 when these wider economic benefits were included.¹⁵

9. The Department admitted that it needs to do more work on understanding wider economic benefits, such as changing land use, since these could not currently be quantified in the benefit-cost ratio.¹⁶ It also said it had plans to carry out sensitivity testing of its benefit-cost ratios to understand the impact of changes to its assumptions.¹⁷ Transport for London said that other European countries were looking to the Crossrail methodology to understand how to improve their own appraisal of transport projects.¹⁸

10. The Department assesses more than just the benefit-cost ratio when deciding which projects to invest in, although this is not always clear. In the case of Crossrail, the Department said that it had considered how failure to invest in projects like Crossrail would prevent growth in London's economy, and how land to the east and west of London could be regenerated.¹⁹ The Department noted that large scale projects, such as Crossrail, are necessary to deliver significant impacts on the long term growth of the economy and improvements to people's quality of life, though smaller projects such as road improvement schemes might have higher benefit-cost ratios.²⁰ The Department said it believed its appraisal of transport projects to be world class.²¹

11. We asked whether the fact that large schemes have better access to funds and expertise to support a case for investment means that smaller schemes may be overlooked because they find it more challenging to form a business case.²² The Department noted that it had a portfolio of projects across the country, with considerable investment outside of London.²³

13 [C&AG's report paras 1.10 & 1.11](#)

14 [C&AG's report para 1.12, Q1](#)

15 [C&AG's report para 1.13](#)

16 [Q13](#)

17 [Qq 12-13](#)

18 [Q 15](#)

19 [Q 4](#)

20 [Q 3](#)

21 [Q 6](#)

22 [Qq 19, 25](#)

23 [Q 8](#)

It added that it aimed to make proportionate demands for business cases to reflect the level of investment, and that it provided guidance on its website to assist local authorities with appraising transport schemes.²⁴ The Department also noted that understanding the impact of a decision to invest in a project in one location rather than another elsewhere was an integral part of how it compiles its portfolio.²⁵

12. Negotiations to secure funding from the beneficiaries of Crossrail were more successful where benefits were better understood and articulated. Transport for London emphasised how London businesses were contributing substantial funding to the programme, and told us that businesses had largely accepted the supplementary rate and levy placed upon them in anticipation of the benefits Crossrail would bring.²⁶ Transport for London also expected that Berkeley Homes would contribute towards a station in Woolwich, because of the economic development and housing potential in the surrounding area that would result from a Crossrail station.²⁷

13. However, there have been difficulties in securing funding from some beneficiaries where commercial benefits have not been well understood by the Department; most notably Heathrow Airport Limited, which will now contribute £160 million less than agreed.²⁸ The Department stated that the Civil Aviation Authority had taken economic analysis into account in its decision that £70 million was a justifiable contribution from Heathrow Airport Limited.²⁹ The Department said that its lessons learned exercise had highlighted the need to better understand the motivation of each beneficiary, and how its objectives aligned with those of the Department, in order to secure funding more successfully on future projects.³⁰

24 [Q 27](#)

25 [Q 6](#)

26 [Q 22](#)

27 [Q 38](#)

28 [Q 39](#)

29 [Q 23](#)

30 [Q 40](#)

Formal Minutes

Monday 14 July 2014

Members present:

Mrs Margaret Hodge, in the Chair

Mr Richard Bacon	Anne McGuire
Guto Bebb	Austin Mitchell
Mr David Burrowes	John Pugh
Jackie Doyle-Price	Nick Smith
Chris Heaton-Harris	Justin Tomlinson

Draft Report (Crossrail), proposed by the Chair, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 13 read and agreed to.

Conclusions and recommendations agreed to.

Summary agreed to.

Resolved, That the Report be the Eighth Report of the Committee to the House.

Ordered, That the Chair make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Wednesday 16 July at 2.00 pm]

Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the Committee's inquiry page at www.parliament.uk/pubaccom.

Wednesday 9 April 2014

Question

Philip Rutnam, Permanent Secretary, Department of Transport, **Sir Peter Hendy**, Commissioner, Transport for London and **Andrew Wolstenholme**, Chief Executive, Crossrail Ltd

[Q1-82](#)

List of printed written evidence

The following written evidence was received and can be viewed on the Committee's inquiry web page at www.parliament.uk/pubaccom. CRO numbers are generated by the evidence processing system and so may not be complete.

1 Department For Transport

([CRO0001](#))

List of Reports from the Committee during the current Parliament

The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

Session 2014–15

First Report	Personal Independence Payment	HC 280
Second Report	Help to Buy equity loans	HC 281
Third Report	Tax reliefs	HC 282
Fourth Report	Monitor: regulating NHS Foundation Trusts	HC 407
Fifth Report	Infrastructure investment: impact on consumer bills	HC 406
Sixth Report	Adult social care in England	HC 518
Seventh Report	Managing debt owed to central government	HC 555