

Department of the Environment, Transport and the Regions

The Channel Tunnel Rail Link



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executive summary

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- 1 The contract under the Private Finance Initiative to build the Channel Tunnel Rail Link (the Link) and run the UK arm of the Eurostar international train service (Eurostar UK) was awarded to London & Continental Railways Limited (LCR) in February 1996. The contract was in line with the principles of the Private Finance Initiative: it envisaged that LCR would finance, build and operate the Link drawing revenue primarily from Eurostar UK and from use of the Link by domestic train services. The Department of the Environment, Transport and the Regions (the Department) agreed to provide LCR with direct grants totalling £1,730¹ million for the construction of the Link and its use by domestic train services. It was expected that construction would start in 1998 and that the Link would open in 2003.
- 2 At the end of 1997 it had become clear that overly optimistic forecasts for the operating performance of Eurostar UK had scuppered LCR's efforts to raise all the money it needed from private investors to build the Link. In January 1998, the company therefore asked for an additional £1,200 million² in direct grants from the Department. Following negotiations, the Deputy Prime Minister announced in June 1998 that the Department had agreed with LCR on a way forward which would not involve a material increase in the direct grants to be paid to LCR. However, it did involve a radical restructuring of the project and the role of LCR. A chronology of key events is at Appendix 1.



- 3 The restructured deal retains the same route for the Link but splits construction into two sections: Section 1, from the Channel Tunnel to near Ebbsfleet on the outskirts of London and Section 2, from near Ebbsfleet to St. Pancras. Railtrack has been brought in both to manage construction and, when it is completed, to purchase Section 1. Railtrack also has an option to purchase Section 2 on the same basis. Construction of Section 1 began in October 1998 and is on target for completion by 30 September 2003. Completion of the entire Link is now scheduled for late 2006. The financing of the restructured project is fundamentally different to that envisaged in 1996, and so is the distribution of risks among the various parties now involved with the deal.

¹ Future cashflows in the original deal were evaluated at 1995 prices, discounted at 6 per cent real to 1995.

² To allow comparison with the original deal, LCR's request for additional direct grants of £1,200 million was expressed in 1995 prices, discounted at 6 per cent real to 1995. When expressed in 1997 prices, discounted at 6 per cent real to 1997, the figure increases to £1,294 million.

- 4 This report examines:
- a) the Department's reasons for restructuring the deal rather than choosing other options;
 - b) the likely implications of the restructured deal for public expenditure; and
 - c) the justification for the direct grants which the Link will require.

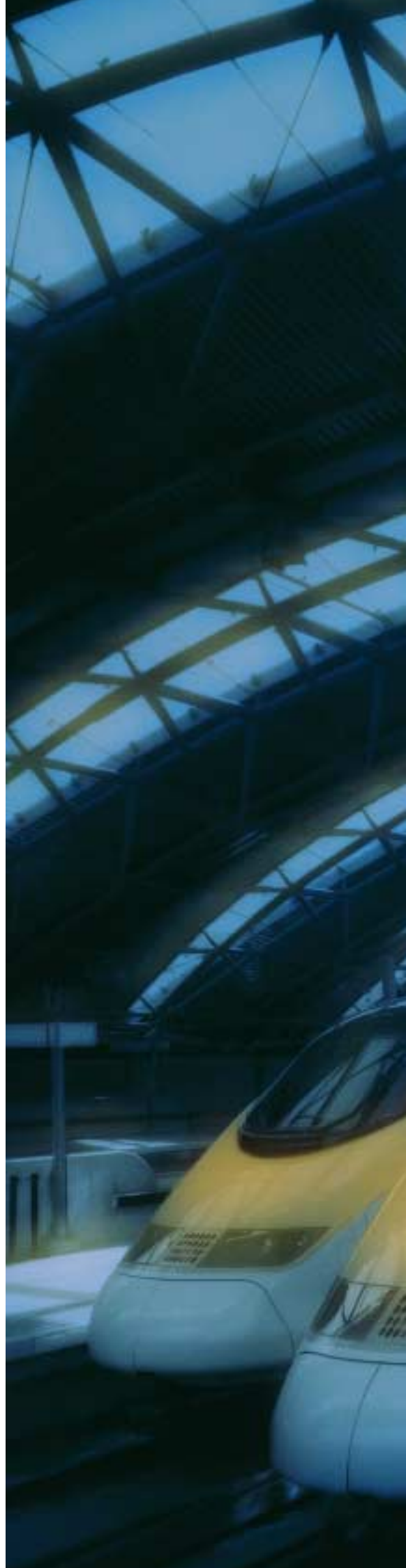
Our methodology is summarised at Appendix 2.

Why the Department restructured the deal

- 5 The original deal combined construction of the Link with the privatisation of what was at the time a relatively new Eurostar UK train service to Paris and Brussels. It rested on LCR's forecasts that Eurostar UK would grow quickly enough for the revenues generated to support the raising of private finance to cover the heavy costs of constructing the Link. Ahead of a main finance raising exercise, the Department agreed to support initial borrowing by LCR of over £400 million from a syndicate of banks. LCR's original shareholders put up £60 million of equity finance (*paragraphs 1.1 to 1.10*).
- 6 In the event, Eurostar UK performed much less well than expected and LCR was unable to continue on the original plan. The Department encouraged LCR to seek other ways of carrying on with the project, and LCR held initial discussions with Railtrack in 1997. Finding that it was not possible to reach agreement with Railtrack LCR approached the Government seeking additional direct grants, before its finances were exhausted (*paragraphs 1.11 to 1.26*).
- 7 The Department rejected the option of simply agreeing to pay additional grants and made it clear to LCR that it wanted the Link completed without a material increase in the size of the direct grants. The Department was also unwilling to dispense with LCR and begin the process of selecting a private sector partner all over again. Such a move would have involved a further delay of at least two years and prolonged the planning blight, which had affected properties near the route of the Link (*paragraphs 1.27 to 1.32*).
- 8 The Department therefore decided to restructure the deal with LCR. The Department's key objectives for the restructuring were:
- a) to ensure that the Link would be built without a material increase in the level of direct grants agreed in the original deal;
 - b) to inject new private sector management into Eurostar UK;
 - c) to ensure that the parties to a restructured deal would be financially committed to it and financially strong enough to meet their obligations; and
 - d) to achieve a true Public Private Partnership with each risk allocated to the party best able to manage it and with rewards commensurate with the risks.
- 9 The Department achieved its key objectives during the restructuring and the restructured deal is in many respects more robust than the original:

financing the construction of the first Section of the Link is no longer dependent on the performance of Eurostar UK

- a) Apart from payments of direct grants, the finance for Section 1 now comes from two sources: commercial bank borrowing by LCR which has been guaranteed by Railtrack, and an issue of bonds by LCR which carry a Government guarantee (*paragraph 1.34*).



construction risk remains with the private sector

- b) Because Railtrack will manage the construction of Section 1 and purchase it at a price linked to the actual cost of construction, the construction risk was allocated to a party that was considered capable of managing it and was strong enough to meet the financial obligations involved (*paragraphs 1.35 to 1.37*).

there are improved arrangements for sharing Eurostar UK revenue risk

- c) Eurostar UK is now being managed by a private sector company appointed by LCR, Inter Capital and Regional Railways Limited (ICRR). The management fee paid to ICRR is a percentage of Eurostar UK turnover, adjusted by a sharing of operating cashflow risk with LCR (*paragraphs 1.38 to 1.40*).

the Department has improved its monitoring of the project

- d) Under the original deal, the Department decided not to demand all the information it was entitled to under the contract with LCR. This decision hampered the Department's ability to monitor progress and at the same time denied the external financiers at the early stages of the project the opportunity to bring private sector financial disciplines to the deal. In the restructured deal, the Department now has considerable influence on the way the whole project is being managed. It has a special share in ICRR; it is a co-signatory to the contract between Railtrack and LCR and the Department has appointed a director to the board of LCR. In addition, the Department is actively monitoring the performance of LCR and the other parties to the project (*paragraphs 1.41 and 1.42*).

financing for Section 2 of the Link is yet to be secured

- e) Railtrack has an option to purchase Section 2, but no obligation to construct it. LCR is contractually committed to construct Section 2, but may not offer the right to acquire Section 2 to anyone other than Railtrack prior to the expiry of the option in 2003 or Railtrack's agreement to surrender it earlier. As a private sector company reliant on its trading income from the Link, LCR cannot guarantee to be able to raise the necessary finance for Section 2 when it is required (*paragraphs 1.43 to 1.45*).
- f) The Department is discussing the arrangements for Section 2 of the Link with LCR, Railtrack and other parties with the intention of concluding a deal very soon. The National Audit Office is monitoring developments and may report further if necessary (*paragraph 1.46*).

Public expenditure impacts

- 10** In restructuring the deal, the Department avoided any material increase in the net amount of direct grant payable to the project. Nevertheless, the restructured deal now depends on the Government having issued various guarantees and undertakings to lend money directly to LCR. This means that the taxpayer is exposed to considerable financial risk if Eurostar UK does not perform as well as expected against revised forecasts. Set against that risk, the Department will share in any long-term profits if the business is successful.

- 11 The Link will be financed from a complex mixture of public and private finance and guarantees:
- a) In the short term, and beginning during the re-negotiations, LCR conducted a sale-and-leaseback of eleven of its Eurostar train sets, with the Government guaranteeing LCR's obligations amounting to £230 million, pending the arrangement of long-term finance (*paragraph 2.2*);
 - b) LCR has raised long-term finance of £2,650 million and expects to raise a further £1,100 million through the issue of Government-guaranteed bonds. LCR took the view that an issue of equity would not succeed, and that it would not be practicable to borrow such a large sum from banks. Our advisers, RBC Dominion Securities agree that the bonds represented good value in terms of the rates of interest payable, compared with what was available in the loan markets at the time (*paragraphs 2.4 to 2.6*).
 - c) Railtrack is obliged to buy Section 1 from LCR, and has guaranteed part of LCR's borrowing. Railtrack will pay the actual cost of construction, including an allowance for the interest costs incurred by LCR, less the direct grants to be paid by the Department to LCR. Railtrack has also guaranteed up to £700 million of commercial bank borrowing by LCR for the specific purpose of financing the construction of Section 1 (*paragraphs 2.7 and 2.8*).
 - d) In addition to direct grants, the Department has guaranteed payments from Eurostar UK to Railtrack and has provided a capped loan facility for LCR to draw on, depending on how Eurostar UK performs in the future. Direct grants under the restructured deal of £2,010 million³ will be paid towards the construction and operating costs of the Link. In addition, the Department has guaranteed the payments Eurostar UK will be due to pay Railtrack as owner of Section 1. These "track access charges" are based on the same principles as those applying to the payments by other train operating companies for the use of Railtrack's infrastructure elsewhere on the railway system. In this deal, however, they are also the mechanism by which Railtrack will make a commercial return on its investment in Section 1 (*paragraphs 2.9 to 2.12*).
 - e) The original shareholders with a continued interest in LCR have converted most of their equity stake into preference shares carrying a fixed rate of interest. One half of these preference shares will be repaid with accrued interest on completion of Section 1 and the other half on completion of the entire Link. LCR's original shareholders did not therefore lose their original investment and did not contribute any further equity to the project (*paragraphs 2.13 to 2.15*).

- 12** The decision to use Government-guaranteed bonds was finely balanced. The Department considered that their use had advantages over the alternative of making voted loans to LCR, financed through the issue of conventional Government bonds (Gilts):
- the concept of the Link as a flagship Public Private Partnership would be maintained;
 - it would avoid signalling to other potential PPP developers that the Government would be willing to take on financing risk; and
 - it would keep the project off the public sector balance sheet. This last point depended on the guaranteed bonds not being classified as public sector borrowing, which followed from the Office for National Statistics being satisfied that there was a very low likelihood of the guarantee ever being called (*paragraphs 2.16 to 2.18*).
- 13** The use of Government-guaranteed bonds will, however, lead to extra funding costs by comparison with Gilts because the interest rates at which they were issued were higher than those of directly comparable Gilts. Our advisers consider that the marketing of the bonds appears to have been handled most carefully and attribute this extra cost to technical factors affecting demand from investors for the bonds. Nevertheless, the advantages over Gilts that the Department saw in using Government-guaranteed bonds were secured at a cost of some £80 million⁴ (*paragraphs 2.19 to 2.24*).
- 14** As a result of the financing structure now put in place for the Link, the taxpayer remains exposed to the financial risks of LCR's business. If Eurostar UK continues to under-perform, the arrangements made for the Government to lend LCR the money to pay Railtrack's access charges would be triggered when LCR's other cash resources, including the money raised from the Government - guaranteed bonds, are exhausted. Scenarios considered by the Department at the time of the restructuring show that between 2010 and 2021 a shortfall ranging from nil to £360 million might arise. A more recent forecast of Eurostar UK performance suggested a range of £360 million to as much as £1,200 million under extreme circumstances. Further, but much smaller, financial exposure will arise from any future Government guarantees of LCR's potential liabilities through a highly complex series of swap transactions, which were used to hedge LCR's risks from changes in interest rates (*paragraphs 2.25 to 2.32*).
- 15** In restructuring the deal, however, the Department ensured that the taxpayer stood to benefit in the event of Eurostar UK being successful in attracting increased patronage. LCR is not permitted to pay dividends to its shareholders until 2021, but if Eurostar UK does well that restriction could be relaxed before then, provided all accumulated borrowing has been repaid. After 2021, the Government will be entitled to 35 per cent of LCR's pre-tax cashflow and, if LCR is sold or floated, the Government would receive 90 per cent of the proceeds (*paragraphs 2.33 and 2.34*).



³ Future cashflows in the restructured deal were evaluated at 1997 prices, discounted at 6 per cent real to 1997. Direct grants (£1,730 million) agreed under the original deal increase to £2,014 million when expressed in 1997 prices, discounted at 6 per cent real to 1997. In the rest of this report, future cashflows are quoted at 1997 prices, discounted at 6 per cent real to 1997, unless indicated otherwise.

⁴ As at February 1999, the date the Government-guaranteed bonds were issued.

The economic justification for public sector support

- 16** The Link could not be developed without very active support from the Government at all stages. The Government is necessarily involved through rail regulation, and through the UK's international obligations, notably those relating to the Channel Tunnel. The Government is thereby obliged to provide sufficient infrastructure to allow for forecast demand for the Tunnel to be met, but there is no obligation to provide a high-speed rail link between London and the Tunnel, which is what the Link will be (*paragraphs 3.2 to 3.6*).
- 17** It was always envisaged that the Link would not be commercially viable without a substantial Government financial contribution. Not only is the Link one of the largest infrastructure projects in Europe, rendering it unlikely that passenger revenues could cover the enormous investment within a commercially acceptable time, but the Link competes directly with other modes of transport, such as airlines, limiting the fares which can be charged. From the start, the Department was clear that it could back the Link, provided that the estimated benefits could be expected to outweigh the financial contribution made to the project by the Government (*paragraphs 3.7 to 3.12*).
- 18** Throughout the negotiation of the original deal and the restructuring, the Department analysed the economic justification for making the financial contribution needed if the Link was to be built. The Department's calculations confirmed that the estimated economic benefits of the Link outweigh the required subsidy. The main economic benefits comprise reduced journey times for passengers and increased rail capacity, along with expected regeneration benefits arising from the Link attracting jobs to the areas through which it will run (*paragraphs 3.13 to 3.22*).
- 19** In renegotiating the original deal, the Department made several changes in its methodology for estimating the benefits the Link would generate. In the final assessment the Department excluded benefits to non-UK resident passengers but included an estimate of regeneration benefits amounting to £500 million. The result, in the Department's most likely estimate of future Eurostar UK patronage, showed total benefits of around £3,000 million for a total public sector contribution of some £2,000 million (*paragraphs 3.24 to 3.26 and Figure 19*).
- 20** It was a new step to include quantified regeneration benefits. Previously in cost-benefit analysis of transport projects, the Department considered that regeneration benefits would be too uncertain to be quantified in money terms, and to the extent that they could be quantified some of this would represent double counting of passenger benefits already included in the assessment. In this case, however, the Department decided that the methodology for



calculating regeneration benefits was sufficiently robust to allow their inclusion in the analysis. The estimate was that the Government would be willing to pay £1,000 million through conventional regeneration funding to secure benefits equivalent to those likely to arise from the Link. This figure was then halved to take account of the double counting (*paragraphs 3.27 to 3.29*).

21 In the Department's view, the innovation of quantifying regeneration benefits in money terms as part of this type of analysis was successful. The Department intends to place more emphasis on quantified regeneration benefits in future projects and is undertaking research on guidance as to what form this quantification might take (*paragraph 3.30*).

22 There is room for debate too about the way passenger benefits were taken into account. At the time, the Department did not have explicit guidance for the appraisal of new heavy rail schemes to complement the guidance it had issued for light rail schemes (such as trams). The Department's figures were based on a calculation that the value of time savings to passengers would, on average, be higher than the fares being paid. This would imply that passengers would not be prepared to pay for the full benefits they would get from using the Link (*paragraphs 3.31 to 3.34*).

23 We examined the other key assumptions made in the Department's calculations. In our view, some of them are questionable. Substituting more reasonable assumptions, we have estimated that there would be a net benefit from the Link of under £500 million, and that if money estimates of regeneration benefits are excluded, in line with Departmental guidance, then the net benefits of the project would only be marginal. To the extent that Eurostar UK does not achieve the levels of usage assumed in the Department's most likely estimate of future Eurostar UK patronage, then the costs of on-going public subsidy for the project are likely to be increased and the quantified net benefits of the project are likely to be reduced still further. On the basis of recent Eurostar UK performance, which has been below this level, the Link represents poor value for money in terms of estimated economic benefits (*paragraphs 3.35 to 3.40*).

24 What this means is that the economic justification for Government support for the project rests heavily on wider policy benefits associated with the Link. The Government saw the project as one of national prestige. It will provide a high speed rail service to Europe. France and Belgium already have such high speed connections to the Channel Tunnel, and the Link is one of a number of high priority projects for the development of high speed rail routes across Europe. This has given the Link priority status in the Government's overall transport policy. Although such a consideration was not formally included in the Department's stated objectives, it was an important consideration in Ministerial announcements on the project (*paragraph 3.23*).



Lessons learned

25 We cannot comment at this stage on whether the Department's objective to ensure the construction of the entire Link will be achieved. Nevertheless, it is apparent from our examination that, in difficult circumstances, a range of complex issues had to be addressed and that the Department handled the negotiations with LCR in a competent manner. Although the project to build the Link and privatise Eurostar UK is unique in many respects, the conclusions that can be drawn from it are not. There are, therefore, a number of important lessons to be borne in mind for future Public Private Partnerships, along with some specific points for the Department.

Lessons for departments from the structure of the original deal:

Revenue forecasts for start up businesses are subject to great uncertainty

- 1 There have been several recent examples of high profile start up projects whose business plans have depended on forecasts of usage by members of the public, and these forecasts have turned out to be highly optimistic.⁵ As bidders' forecasts of revenues from the fledgling Eurostar UK business were in line with previous estimates made by the Department and British Rail, the Department did not seek to have them independently validated. Moreover, in the absence of proven demand, it was not possible for either party to this deal to be sure that forecast revenues would be sufficient to support LCR's planned stock market flotation. Eurostar UK's poor performance weakened LCR's financial strength to such an extent that its ability to fund the Link was destroyed. As a result the entire project came close to collapse.

Make sure that bidders for a deal are not encouraged to be over-optimistic

- 2 A key element of the initial competition in 1994-95 to find a promoter for the Link was the level of direct grants required by each bidder. As the level of direct grants would depend on the amount of revenue each bidder thought it could secure from operating Eurostar UK, there was an in-built incentive for bidders to be over-optimistic about the prospects for the business.

The equity capital to be invested in a project should reflect the risks of that project

- 3 Departments should ensure that the capital structure of a proposed deal is consistent with the risks involved in the project. If the proportion of risk or equity capital is too low, the project will not be financially robust in the face of lower than expected revenues. Moreover, having a relatively low investment at risk may provide insufficient incentive for the private sector shareholders to tackle business problems with determination. Either way, the impact of proceeding with too little risk capital is likely to be a call on the public sector for increased financial support, as happened in this case. It follows that a department should take a close interest in the private sector's proposals as regards the capital structure of Public Private Partnerships. If the market is unwilling to subscribe sufficient equity capital it is a clear signal regarding the riskiness of the project, the implications of which need to be thought through by the department concerned.

Government guarantees of project debts are unlikely to be costless

- 4 In signing a direct agreement with LCR's bankers, the Department agreed to support the servicing of all of the £430 million borrowed during the early stages of the project. The effect of this was that, if the agreement with LCR was terminated, the Department agreed to take back not just the assets of the Eurostar UK business but also its outstanding liabilities. The Department therefore retained the risk that future Eurostar UK revenues would be insufficient to service this debt and attract further investment in the project. If the market is unwilling to provide sufficient debt capital secured on the project, that is a clear signal that the project risks go beyond normal commercial risks. A Government guarantee of debt capital transfers project risks to the department, which needs therefore to consider thoroughly how to manage those risks.

Substantial risks arise if public sector assets are transferred in advance of external finance raising

- 5 In the original deal, significant public sector assets were transferred to the private sector more than a year before the planned completion of the external financing of the project. The effect of this, when the financing could not be completed, was that the assets could be recovered by the Department only with the added encumbrance of the private sector debts which had been raised by LCR. If a department proposes to depart from the normal practice in Public Private Partnerships of transferring assets only when all finance has been raised, then it needs to think through its approach to managing the increased risks it thereby incurs.

Lessons for departments from the restructuring of the deal:

Monitor retained risks from the start of the project

- 6 The existence of a direct agreement may have made LCR's banks less likely to scrutinise the finances of the project both before and after the contract was signed. For the period that such a risk is retained, departments should, in conjunction with all private sector participants in the deal, ensure that robust project monitoring arrangements are put in place.

Reallocate risks if necessary

- 7 In procuring a PFI deal, risks should be allocated to the parties best able to manage them. If circumstances change, however, departments should not hesitate to seek a reallocation of risk which will preserve or enhance value for money. In the original deal, the Department considered that the risks attached to raising finance for and building the Link, along with the business risks associated with running an international train service, would be handled better in the private sector. These different risks were bundled together and handed to a single private sector partner. In restructuring the deal, the Department quickly realised that risks had to be reallocated if the Link was to be built. The outcome was a deal that is in many respects more robust than the original.



If a project requires public funding, give careful consideration to the most cost-effective route

- 8 LCR could not have raised all the finance it needed without Government help. However, the use of bonds carrying a Government guarantee rather than a voted loan from the Department to fund the Link, cost the project an additional £80 million. The use of such bonds reflected the unique circumstances of this deal and, in particular, achieved the Government's aim of keeping the project off the public balance sheet. Departments will need to consider this cost-benefit balance with great care if similar situations arise in the future.

If a deal goes wrong, private sector partners should bear their share of the risk

- 9 Under the PFI, the private sector is paid for taking risk. Responsibility should therefore remain with the private sector should these risks actually occur. In the restructured deal, LCR's shareholders have retained an economic interest in the project while avoiding the full financial consequences of its near collapse. For the future, departments should ensure that equity risk in PFI deals is real and that over-optimism in bidding for contracts will lead to losses if things go wrong.

Specific points for the Department:

The Department should continue to monitor the deal

- 10 Under the terms of the restructured deal, the taxpayer remains exposed to the financial consequences of Eurostar UK under-performing against forecast passenger volumes but, on the other hand, the taxpayer is entitled to significant dividends if the business is successful. The Department is monitoring progress and has appointed a director to the board of LCR, Eurostar UK's owners. In view of the very long-term nature of these contingent liabilities and assets, the Department should ensure that such active monitoring remains in place and is adequately resourced.

Innovation in quantifying regeneration benefits should be shared with others

- 11 By attaching a monetary value to the expected regeneration benefits from the Link, the economic appraisal of this deal involved a radical innovation in previously accepted practice. The monetary valuation of expected regeneration benefits from transport and other projects will always be problematical. Nevertheless, the Department rightly intends to share the insights gained in this project with other public bodies to ensure consistency in approach.

The Department should do what it can to ensure that the expected benefits of the Link are realised

- 12 If regeneration and passenger benefits are not as high as expected, the Link is unlikely to be good value for the taxpayer on economic grounds. To inform future decision making, it is essential therefore that the Department should do what it can to ensure that such benefits are realised. This should include close monitoring and evaluation of the actual value of the regeneration benefits achieved by the Link against those expected when the deal was restructured.