Ministry of Defence

Redevelopment of MOD Main Building

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL
HC 748 Session 2001-2002: 18 April 2002

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Comptroller and Auditor General	**19 March 2002**

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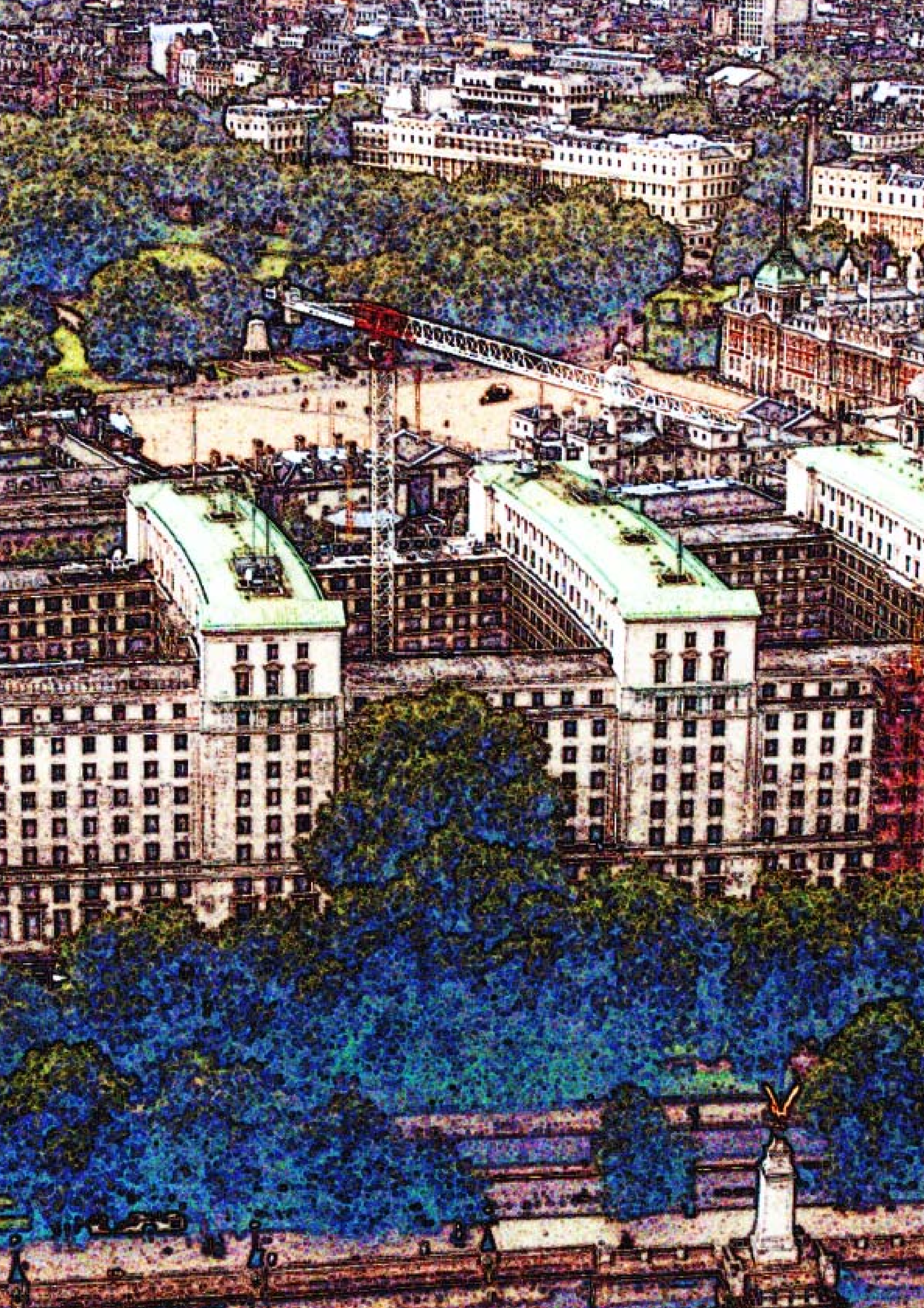


executive summary

1 The Ministry of Defence (MOD) requires secure, modern and efficient working accommodation in central London, close to Downing Street, from which to direct Britain's defence operations. MOD had recognised since 1990 that the number of its Head Office staff in London could be reduced. This would create opportunities for reducing the number of London buildings used by MOD and save accommodation costs. In addition, MOD had identified that improvements were necessary to the accommodation and working environment available in its principal office building in Whitehall known as Main Building. It therefore decided to redevelop Main Building.

2 This is a large and complex project. It involves moving over 3,000 staff into other central London accommodation (a process known as decant), carrying out an extensive redevelopment of Main Building, disposing of surplus properties and then moving staff back into Main Building.

3 In May 2000, MOD let a PFI contract with a net present value of £746 million (at 2000 price levels) to a consortium called Modus **(Figure 1)**. The 30-year contract covered the redevelopment of Main Building and limited refurbishment and provision of support to other buildings needed to accommodate staff while redevelopment is undertaken, followed by the provision of maintenance and facilities management services at Main Building and the Old War Office until May 2030.

1 Members of the Modus consortium and its main contractors

	% shareholding
Innisfree PFI Funds[4]	40.1
Laing Investments	40.0
Amey Ventures Ltd	19.9
	100.0

NOTES

1. Hyder Investments Ltd and Macquarie Infrastructure Projects Ltd were both initial shareholders in Modus but subsequently sold their respective shareholdings.
2. The construction contractor is Skanska Construction (who took over Kvaerner Construction who had been allocated responsibility for the provision of construction services).
3. Facilities management services are to be provided by Amey Whitehall.
4. Innisfree have two PFI funds: PFI fund 1 has a 13.4 per cent shareholding, PFI fund 2 has a 26.7 per cent shareholding.

Source: National Audit Office

4 We examined the extent to which the PFI contract for the redevelopment is likely to deliver value for money and the effectiveness of MOD's management of this major project. The methodology we adopted to undertake the study is set out in Appendix 1. In summary, we found:

- the deal gives MOD what it set out to procure, namely rationalisation of its central London Head Office accommodation, through a PFI deal in standard form;
- after an effective procurement, the benefits of the deal will be similar in cost to the forecast cost of conventional procurement, other factors tipping the balance in favour of PFI;
- the management of this project, which is proceeding ahead of plan, has been good.

5 Key features of the deal and how it compares to conventional procurement are set out in Table 1 on page 7.

The deal gives MOD what it set out to procure

The contract requires Modus to deliver MOD's physical requirements

6 As a result of letting this contract, MOD is likely to secure significant benefits. MOD expects to achieve its objective of accommodating a reduced number of Head Office staff, with staff numbers falling by 29 per cent **(Figure 2)**, in two buildings. Following the rationalisation, MOD will be able to dispose of five of its seven existing central London sites resulting in annual operating cost savings of £18 million. The improved usage of floor space should enable MOD to increase the number of staff working in Main Building by 26 per cent (Figure 2). In addition, there will be significant unquantified benefits to working efficiency arising from the improved accommodation.

2 Planned changes to MOD Head Office staff numbers in London

	1 April 1999	By 30 Nov 2004	% change
Main Building	2,623	3,300	+26%
Other buildings (six at 1 April 1999; one, Old War Office, by 30 November 2004)	3,397	1,000	-71%
	6,020	**4,300**	**-29%**

Source: Ministry of Defence

The project has the appropriate features of a PFI deal

7 The deal provides incentives to Modus to complete this major project on time, without varying the cost to MOD, and then to provide the specified standards of service. Only once the new accommodation is provided in accordance with the contractually specified standards will Modus be entitled to its full average annual fee of £55 million. If Main Building cannot be fully reoccupied by MOD by 30 November 2004 then Modus will lose £1 million in revenue for each month of delay and it will have to pay the additional costs of keeping MOD staff in alternative accommodation. MOD is not required to pay Modus for accommodation that does not meet the specified availability standards even if it chooses to use the space. And MOD may deduct Modus' entire fee if 90 per cent of the accommodation falls short of the required availability standards. In addition, up to 20 per cent of Modus' facilities management costs

are at risk if its standard of service provision is not satisfactory. A major benefit of the PFI as a form of procurement is that it has enabled MOD to achieve an appropriate allocation of risk between itself and its private sector contractor.

8 A risk inherent in any long-term accommodation project is that requirements may change over time. MOD's contract with Modus allows MOD flexibility on reducing the space it occupies. In April 2000, a month before letting the PFI contract to Modus, MOD identified, however, that there were a further 1,000 non-Head Office staff who should remain in London. It subsequently approved a separate deal whereby London and Regional Properties will refurbish one of MOD's other London properties to accommodate the additional staff.

After an effective procurement, the benefits of this deal will be similar in cost to the forecast cost of conventional procurement; other factors tipped the balance in favour of PFI

9 In assessing the value for money to be expected from a PFI deal, a number of factors need to be considered together: the strategic justification for the deal; the competitiveness of the procurement process, including analysis of any movements in the price of the deal during exclusive negotiations with the preferred supplier; and the forecast costs of the deal alongside any qualitative factors which differentiate the deal from other options. In this case:

- the PFI deal emerged as the most promising from a wide range of options;
- the selection of Modus was competitive, but the price of the deal changed during exclusive negotiations with Modus, in particular as a result of further building work identified from surveys and increases in the cost of finance for the project;
- the costs of the deal were similar to those of a public sector comparator and, by the time the contract came to be signed, other factors were decisive in giving the deal advantages over the alternatives then open to MOD.

The PFI deal was selected after a review of a wide range of options

10 MOD rejected relocating its Head Office either elsewhere in London or on a greenfield site because of the cost of moving the Defence Crisis Management Centre (DCMC), and the need for Ministers to remain at the heart of Whitehall. Potential problems in operating the DCMC and anticipated planning permission objections to Main Building given its grade 1 listing also led it to reject demolition and rebuild options. MOD rejected a 'do minimum' option of refurbishing Main Building's systems because of its poor physical state. In addition, this option would not have given the required working environment and rationalisation benefits. A PFI procurement was chosen because MOD thought it could achieve savings with strong incentives for the contractor to complete on time and without varying the cost to MOD.

After a competitive procurement the price of the deal increased due mainly to survey work and increased financing costs

11 MOD ran a competition amongst UK companies; the final stages of the competition were between Modus and the Modem consortium led by Taylor Woodrow. MOD selected Modus as preferred bidder in January 1999 as its price was £42 million lower than that offered by Modem, its solution complied more closely with the output specification, and more closely met MOD's commercial requirements.

12 The deal was closed in May 2000, 16 months after Modus became preferred bidder. During this period the price increased by £99 million (at 2000 price levels). As has been normal PFI practice interest rate risk rested with the public sector until contract signature. Because of interest rate increases, an increased funding requirement as a result of additional capital expenditure and other movements in the financial markets the price increased by around £60 million during this period. £37 million of the price increase arose mainly because further extensive surveys by Modus showed that additional building work would be required as the building was in a poorer condition than anticipated. MOD wanted to resolve the building issues to ensure that Modus would agree to price certainty but took steps to satisfy itself that the additional work was necessary and the price for the work was reasonable.

13 In June 1999, based on discussions with Modus, MOD expected the deal to be closed within four months and accepted that Modus needed to make a final decision on the type of financing to be used if the timetable was to be achieved. As there was little to choose at that time between the likely costs of bank and bond finance, MOD agreed with Modus' proposal that, on qualitative grounds bank finance should be used. These included some uncertainty by MOD as to whether it would be possible to arrange bond finance for such a large deal on terms which would represent value for money at a time when the bond market for PFI deals was less developed than the PFI bank finance market. It also preferred bank finance for a number of other qualitative factors including that it provided greater flexibility to cope with any necessary contract variations.

14 The deal was not closed in October 1999 as MOD had expected. Between this date and the actual signing of the deal in May 2000, MOD chose to continue with bank finance as the method of financing in the absence of a clear case for change. In hindsight, following price movements in the markets, bond financing may have provided a less expensive financing cost at the time of closing the deal in May 2000. Bond finance might have been between £1 million and £22 million cheaper at that time. But, because of uncertainties surrounding these estimates[1] and how the markets at the time would have priced a bond for this deal, such an outcome from using bond finance, in respect of the pricing and timing of the deal, cannot be viewed with certainty. At the time, MOD saw no durable advantage from changing the financing arrangements. Despite the delays, MOD always believed it was close to signing the contract and did not wish to risk further delays. It continued to have reservations about various aspects of bond finance including the terms on which it could have raised bond finance for such a large deal and therefore whether bond finance would be deliverable. MOD also took into account that the possible cost differential in favour of bond finance was not certain to continue until the contract was ready to be finalised and considered it unlikely that the same degree of risk transfer would have resulted. It also considered that bank financing continued to offer other qualitative advantages.

1 *As explained further on page 23, the upper end of this range is based on the saving that would have been achieved had it been possible for MOD to arrange a bond on the same terms as that achieved in the GCHQ Building deal in June 2000. The terms of the Treasury Building bond in May 2000 would also have produced a similar outcome but the terms were obtained on a considerably smaller redevelopement project. There are uncertainties about whether these terms could have been achieved for the MOD Building deal. The lower end of the range would have arisen if the pricing of the deal had had to be amended in a number of ways from the pricing achieved on the GCHQ and Treasury building deals due to the complexity, size, and length of contract.*

The cost of the deal is similar to the forecast cost of conventional procurement; other factors tipped the balance in favour of the PFI deal

15 The price of the 30-year deal as contracted with Modus is £746.1 million at 2000 price levels. In comparison, MOD estimated that the cost of a conventionally procured project would fall in the range £690 million to £807 million. Given the uncertainties inherent in comparing 30-year forecasts of project costs, the appropriate conclusion from these figures is that the deal will cost a similar amount to a conventional procurement.

16 MOD drew this conclusion but also took into account other factors which it considered favoured the PFI deal over conventional procurement. For negotiation and presentational purposes MOD placed emphasis, however, on the deal with Modus being priced slightly below £746.2 million, MOD's estimate of the average expected cost of a conventionally procured project. This emphasis enabled MOD to negotiate a price reduction of £4 million on the day the deal was closed as it insisted the final price should be below the £746.2 million benchmark.

17 The comparison with a public sector comparator shows that there was a decline in savings from the £25 million savings expected when Modus became preferred bidder. But in the late stages of procurement such a comparison with a public sector comparator may not be the soundest basis for the business decisions needed at that point. For example, it may no longer be practicable at that stage to start the procurement again as a conventional procurement. A comparison of the costs and benefits of the proposed PFI deal with the best alternative option available will best inform the decision as to whether to close a PFI deal. MOD recognised this and compared the option of proceeding with the deal with alternatives including: (i) aborting the deal and arranging a new conventionally procured deal at some future date or (ii) scaling down the project to one which would just involve essential building maintenance without a major redevelopment. MOD concluded that, compared with the alternatives, there were clear benefits from finalising the deal with Modus.

Contract management has been good

18 The decant of staff out of Main Building was completed in August 2001 three months ahead of schedule and building work has since started. MOD has been pleased with the progress made to date and has been building an effective relationship with Modus and their principal contractors. In particular, MOD has conducted a series of partnering workshops, adopted a joint mission statement with Modus, maintained continuity of well-trained and appropriately skilled staff and adopted appropriate change procedures. It is too early to predict whether the redevelopment will be successfully completed by the required deadline of 30 November 2004 but the early progress is encouraging. As a result of the acts of terrorism targeted at prominent buildings in America on 11 September 2001 MOD is reviewing its security needs at Main Building but has not yet decided if further work will be needed to address security needs.

Recommendations

19 As a result of this examination we make the following recommendations:

A The extensive experience which the MOD Building project team has built up of managing a large complex PFI building procurement should be disseminated more widely across central government. The project team should summarise the lessons it has learned and make this available to other departments. These include the importance of the commitment from senior officials to the project's success and of negotiating objective performance standards for the availability of all types of serviced accommodation.

B Departments should bear in mind that, although the expected price is important there are also, as MOD recognised, other important strategic factors which may influence the choice of procurement. If, as was the case in this deal, there is a reasonably foreseeable long-term need for accommodation, it makes sense to consider a long-term contractual arrangement for it to be supplied. And arrangements, such as those included in PFI contracts, which incentivise the contractor to complete on time, which minimise the risk of cost variations to the department and which provide specified service standards, may be an important consideration in the choice of procurement.

C Departments should recognise the importance of survey work on the physical state of their buildings to the pricing of bids for redevelopment projects. Departments should consider the merits of making a detailed survey available to all bidders to enable redevelopment building risks to be priced competitively by all bidders.

D Departments should be aware they may be exposed to fluctuating financing costs if there are extended negotiations with the preferred bidder. Costs may go up or down. Where possible the need for negotiations after a preferred bidder is appointed should be minimised and a decision on the choice of financing (which may be affected by fluctuations in the rates obtainable for alternative sources of finance) should be made as late as possible in the procurement timetable.

E There are significant uncertainties inherent in any public sector comparator. The actual costs of a conventionally procured project may fall within a wide range of possible costs. Departments should recognise this in making cost comparisons. In particular, they should be careful not to conclude that a PFI deal becomes better value for money if it is marginally less than a single figure estimate of the cost of conventional procurement. Given the uncertainties in the comparison, a more reasonable conclusion in that situation may be that the cost comparison shows there is little to choose between PFI and conventional procurement in cost terms.

F As the MOD team did in this deal, departments should compare a proposed PFI deal with the best alternative option available before proceeding with the deal. Conventional procurement as modelled by a public sector comparator may not represent a true fall-back solution when closure of the deal approaches. But there may be other realistic alternatives, such as carrying out an alternative project with a reduced scope, which should be compared with the proposed PFI deal.

Table 1: Key aspects of MOD redevelopment deal

	PFI deal as contracted	Conventional procurement alternative
Final deal cost at 2000 prices (discounted at 6% over 30 years)	£746.1 million	Most likely estimate £746.2 million within a range of £690 million to £807 million
Cost profiles	Unitary charge of £55 million spread evenly over years 5 to 30 of the contract (Unitary charge is reduced in first 4 years until Main Building is fully redeveloped)	Full capital cost of £351 million in first 4 years followed by ongoing facilities management and maintenance costs only
Risk allocation:		
■ remaining with public sector	Delivery of MOD operational objectives	Most risks retained by Public Sector
	Information Technology Systems	
■ passed on to private sector	Construction Latent defects Meeting specified performance standards and operating cost risk over the contract period Design Programme	
Cost of advisers used in procurement (actual prices)	£9 million	MOD consider that cost would be broadly the same under conventional procurement
Original estimate of deal cost (2000 prices) at:		
Invitation to negotiate	£659 million	£693 million
Selection of preferred bidder	£647 million	£672 million
MOD assessment of the additional benefits of its chosen procurement route over conventional procurement	Greater price certainty	Cost overruns passed on to public sector body
	Incentivises contractor to complete redevelopment on time as full payment only starts once the building is ready for use and occupied	
	Payment linked to delivery of service which incentivises the PFI contractor to deliver the quality of service which is specified over the entire contract period	Service delivered on cost plus basis
	Same contractor designs, maintains and operates building under one contract and is therefore incentivised to adopt whole-life costing	Design, maintenance and operation of building is dealt with under separate contracts
Milestones	Contract start - May 2000	May 2000[1]
	Decant complete - November 2001	April 2002
	Recant complete - November 2004	August 2005
	Deal end - May 2030	

NOTE

1. Assumes a conventional procurement process would have commenced in January 1999 leading to contract signatures in May 2000.

Source: National Audit Office

A typical office in the Main Building prior to the redevelopment

Part 1

The deal gives MOD what it set out to procure

1.1 This part of the report shows that the project will bring MOD significant benefits and has the appropriate features of a PFI deal. It should enable MOD to achieve its objective of accommodating a reduced number of head office staff in two buildings allowing it to reduce the size of its London estate. The deal provides incentives to Modus to complete this major project on time, without varying the cost to MOD, and to then provide the specified standards of service. The contract with Modus allows MOD flexibility on reducing the space it occupies but MOD identified that there were a further 1,000 non-Head Office staff who should remain in London, and signed a separate deal to accommodate them.

The contract requires Modus to deliver MOD's physical requirements

1.2 MOD recognised three principal reasons for the need to redevelop Main Building. These were:

- The poor physical state of the building. Most of the infrastructure in Main Building was some 50 years old and no longer matched the business needs of a modern corporate headquarters. Virtually every aspect of the building needed attention, and the building as a whole was becoming increasingly unsafe; it did not, for example, comply with fire regulations. It was also expensive and inefficient to maintain;
- The layout of the building which mitigated against efficient working practices and good morale; and
- The need to increase the above ground capacity (from 2,800 staff to 3,300) to allow the rationalisation of Head Office accommodation.

1.3 The PROSPECT report of 1990 recommended changes in working practices and systems to improve staff efficiency in Main Building. This was emphasised by the Defence Costs Study of 1994, which stressed that for the effective and efficient functioning of MOD's Head Office, staff needed good management, good tools, and a working environment, which facilitated informal group working and contributed to a positive mental attitude. MOD had also planned to reduce the number of central London Head Office staff from 12,700 in 1990 to 5,200 by 1995. The Defence Costs study envisaged further reductions in Head Office staff and that those remaining, including Defence Intelligence staff, should be accommodated in Main Building and the Old War Office, once modernisation of Main Building was completed. This would allow MOD to dispose of other London buildings. This conclusion was endorsed in the Strategic Defence Review 1997.

The deal will enable MOD to rationalise its central London accommodation

1.4 The PFI contract, signed with the consortium Modus Services plc, known as Modus, in May 2000, provides for a relatively basic scheme to make the building functional and fit for purpose. The project will create a modern and flexible, space-efficient, working environment, needed to provide efficient direction and support to the Armed Forces, taking advantage of up-to-date business practices and making more effective use of available space and technology. The redevelopment will allow Head Office activities to be concentrated in Main Building and the adjoining Old War Office, enabling the MOD to dispose of five of its seven existing central London sites resulting in annual operating cost savings of £18 million.

The project is in three phases

1.5 In the first phase, Modus provided services at Main Building, the Old War Office and two other central London buildings, Metropole Building and Northumberland House, while the latter three, and another building, St Giles Court, were prepared for the decant of staff from Main Building. The scale of redevelopment work meant that it was necessary for staff to decant to alternative accommodation while work was under way. In the second, the decant phase, Modus is continuing to provide services at the four decant buildings, while it redevelops Main Building. In the third phase, after the redevelopment of Main Building, it will be responsible, for some 25 years, for the provision and upkeep of that building and the Old War Office. The unitary charge payable increases after the reoccupation of Main Building. The project also relies on other management arrangements. MOD is responsible for the provision of IT systems in the decant buildings and in Main Building when it is reoccupied. Telephone services are provided under MOD's Defence Fixed Telecommunications Services PFI contract with BT.

1.6 MOD will reduce Head Office staff numbers in London by 30 per cent from 6,020 at 1 April 1999 to 4,300 after redevelopment of Main Building as shown in **Figure 3**.

3 The planned reduction in Head Office staff numbers

	Number of staff
Before redevelopment of Main Building 1/4/99	**6,020**
At decant	
St Giles Court	1,449
Metropole	1,015
Northumberland House	713
Old War Office	904
Great Scotland Yard	120
Total	**4,201**
After redevelopment of Main Building	
Main Building	3,300
Old War Office	1,000
Total	**4,300**

Source: Ministry of Defence

MOD will be responsible for the disposal of four leased buildings and Modus will dispose of Northumberland House

1.7 After the redevelopment of Main Building and its re-occupation by Head Office staff, MOD will return Great Scotland Yard (another central London building) and Metropole Building to their landlord, Crown Estates, and St Giles Court to its landlord, Legal and General. It will return St Christopher's House, a central London building housing non-Head Office staff, to its landlord, Land Securities. MOD has asked Modus to dispose of Northumberland House and has incentivised Modus to seek a price higher than £20.6 million through a sliding scale fee mechanism. If the proceeds are less than £20.6 million, all the proceeds will go to MOD after the deduction of Modus' reasonable selling expenses and any expenditure it has made to improve the building, which MOD has agreed. If Modus cannot make a sale to a third party, it can buy the building at the prevailing open market value if MOD agrees. MOD, however, can withdraw the disposal of the building from Modus if Modus has not achieved an open market sale within 12 months of the reoccupation of Main Building.

The new accommodation should encourage the development of more efficient working practices

1.8 In moving from a cellular layout in Main Building to a predominantly open-plan one not only will MOD be able to make better use of space but it also has the opportunity to improve working practices and culture, and the use of IT.

Space allocation will be improved

1.9 The redevelopment of Main Building will result in a small reduction in the net internal area (nia) of the building (i.e. the useable area), but MOD will be able to accommodate more staff in it as individuals will on average occupy 19 square metres per workplace compared to 24.7 square metres prior to redevelopment. The wide use of open-plan space means that office areas can be easily adapted to support future organisational change at low cost. All staff of B1 level (Navy Captain, Army Colonel, RAF Group Captain and below) will be in open-plan accommodation. **Figure 4** shows that this amount of space per person compares well with industry practice.

During the redevelopment, MOD will be working to revise their working methods to maximise the business benefits from their new accommodation

1.10 As stated earlier, MOD's objectives for the project include providing accommodation able to support changes in working practices and culture, and modernising accommodation to take into account the role of IT in the modern office.

1.11 To achieve staff understanding, involvement and ownership of the new working environment, MOD is using part of one of the decant buildings, St Giles Court, to test possible designs for achieving changes in working practices and culture. It will test the extent of open-plan space; the use of quiet areas and meeting rooms, alternative furniture ranges and the impact on support staff. MOD is also reviewing the roles and responsibilities of Head Office and examining opportunities provided by new office IT systems, the results of which will feed into the trials of open-plan working in St Giles Court.

4 Space allocation compares well with comparators

	Main Building		Comparators		
	Before redevelopment	After redevelopment	Ministry of Defence	Department of Trade and Industry	Headquarters - all sectors
Square metre per person (nia)	24.7	19	19	17	18

Source: Tectus

An output specification led to an appropriate level of provision

1.12 Innovation is recognised as a key factor, which can contribute to better value for money in PFI solutions. To gain the best from private sector capabilities, departments should not constrain its ability to offer innovative solutions by setting out what is required in input terms but should set out their needs in output terms. They should also ensure that any restrictions they may impose on innovation are justified.

The contract requires Modus to deliver MOD's physical requirements

1.13 Tectus (a firm of architects and space management consultants), our space consultant, has reviewed Modus' design. Tectus considers that Modus' solution will deliver the requirements MOD set out as an output specification and provide an appropriate level of provision. The contractual specification requires 3,300 workstations in Main Building, a 26 per cent increase in capacity.

1.14 MOD gave scope for the private sector partner to bring innovation by stating its requirements in an output specification. Tectus has confirmed that there were opportunities for further innovation in the remodelling of the basic building, but that these innovations would have been expensive to deliver. Tectus considers Modus' design solution to be optimal in balancing innovation and value for money. Modus' design will allow increased flexibility to enable MOD to cope more efficiently with changes to the interior layout. Security arrangements do, however, marginally limit MOD's ability to make optimal use of Main Building through maximising flexibility.

1.15 Some aspects of Modus' design differ from other headquarters buildings. For example, the level of support space provided in Main Building is high, 49.8 per cent, when compared with other Head Office buildings where it averages 27 per cent. MOD says this reflects its special needs - study rooms, IT rooms, the high use of meeting rooms (the current proposals show a ratio of 2.15 meeting spaces per person) plus other facilities such as a restaurant, fitness centre, press briefing suite and the business suite. The increased flexibility provided by the design will allow MOD to convert space efficiently to different uses throughout the contract period.

There is a mechanism to ensure economic and effective use of space

1.16 MOD's staffing requirements are likely to change over time and to ensure that the space in Main Building is economically and effectively used over the life of the project, it requires Modus to undertake an annual review of the use of accommodation. If MOD gives up complete floors, Modus is allowed to rent out whole floors of Main Building to others, subject to MOD's veto on who its co-tenants might be. MOD's incentive in ensuring that space is used economically and effectively is the reduction in unitary charge occasioned by the release of a whole floor.

1.17 Another aspect of ensuring space is used economically and effectively is the employment of management information which would allow MOD to identify and control its occupancy costs in line with the approach used by the private sector. MOD recognises that it needs to identify and set targets for key performance indicators such as annual occupancy costs per workplace. MOD also wishes to make staff aware of the cost of the space they utilise and is exploring the introduction of a charging regime for occupants, which could involve business units paying for their workspace and dedicated support space and a proportion of the common user areas.

MOD is reviewing its security needs in Main Building following the events of 11 September 2001

1.18 MOD took account of its understandably high security considerations when developing the output specification for the PFI contract. Following the acts of terrorism targeted at prominent buildings in the United States of America, MOD is reviewing its security needs at Main Building. If MOD decides that increased security is needed and if it represents a significant change to the original specification, the unitary charge will increase.

MOD concluded that the accommodation of more than 3,300 staff in Main Building would not represent value for money

1.19 MOD invited bidders, at the Invitation to Submit Outline Proposals stage of the procurement, in June 1997, to comment on the extent of opportunities to create significant amounts of additional office space to accommodate more than 3,300 staff in Main Building. Some proposals envisaged the creation of sufficient space to allow the closure of the Old War Office. MOD's technical evaluation of these proposals, however, raised serious doubts about their overall viability, the quality of the resulting working environment and cost-effectiveness. Instead at the Invitation to Negotiate stage, in November 1997, MOD invited alternative bids from both Modus and Modem, the other shortlisted bidder, to accommodate up to 600 more staff in Main Building. This was to provide for further accommodation for non-Head Office staff if MOD could not find alternative accommodation either in or outside London.

1.20 MOD, when considering the variant bids in July 1998, concluded that the bidders' proposals were not cost-effective because significant design and build effort would be required and the timetable for the completion of the redevelopment would have to be extended. MOD, therefore, decided not to pursue this option further. MOD also judged that there was no long-term, i.e. 30-year requirement for the extra accommodation, either in Main Building or in a third London building.

MOD is currently considering, however, whether it needs more central London accommodation

1.21 In April 2000, a month before the contract was signed, MOD, following extensive reviews of staff numbers employed in London, identified that there were up to 1,000 non-Head Office staff who should remain in London. Some of those, however, would have had no accommodation after 2002 under the rationalisation plan as it then stood. In January 2001, MOD approved the refurbishment of St George's Court to accommodate these staff while proceeding with a review of total non-Head Office staff numbers. The Crown Estates Commissioners (CEC), the owner of St George's Court, will lease it to a developer who will redevelop and then sub-let it to MOD for 20 years, with a break option in year 15. If MOD does not require any or all of the accommodation within St George's Court, it can sub-let all or part of it to other government departments. MOD will let a separate facilities management contract for the building.

1.22 MOD did not consider it possible to combine the St George's Court arrangement with the PFI deal, not least because of CEC involvement. MOD has, however, obtained a financially attractive deal with CEC and London and Regional Properties. MOD's Investment Appraisal demonstrated that the St George's Court arrangement was the most cost-effective option for accommodating non-Head Office staff in London. MOD has gained considerable upfront benefits. It received £4.3 million for surrendering the old lease and guaranteeing to take up the accommodation, either with its own or other government departments' staff; its first 10 months of occupation will be free; and fitting out of the accommodation and some specialist fit, will be included in the developer's works. In addition, rent for the first five years will be at a below market rent. In respect of staff who may use this building, Defence Exports Services Organisation (DESO), in particular, which employs some 500 staff, has established a requirement to remain in London. DESO will be accommodated on a single site and MOD will have the opportunity to carry out further rationalisation of a number of non-Head Office functions, which will remain in London.

The project has the appropriate features of a PFI deal

1.23 A PFI contract sets out the key terms on which an authority and contractor agree that their relationship will be based. It includes the allocation of risk, the quality of service required, value-for-money mechanisms and other working arrangements.

Risks are allocated appropriately between MOD and Modus

1.24 The Treasury publications, *Public Private Partnerships - the Government's Approach*, and *Appraisal and Evaluation in Central Government*, recognise that appropriate risk allocation between the public and private sectors is a key requirement to the achievement of value for money in PFI projects. This reflects the principle that value for money will be achieved where individual risks are allocated to those best placed to manage them. However, if authorities seek to transfer risks which the private sector cannot manage, value for money will tend to be reduced as the private sector seeks to charge a premium for accepting such risks. In this partnership, MOD has achieved an appropriate transfer of risks to the contractor.

Modus bears the key risks in respect of the redevelopment programme

1.25 In this complex deal, MOD achieved appropriate risk allocation as follows:

a Modus retains the financial risks of decant, redevelopment and reoccupation not being completed on time, and it and Skanska, the construction contractor, have considerable incentives to meet the contractual reoccupation date of 30 November 2004. Modus will not receive the full unitary charge until Main Building has been reoccupied. If Main Building cannot be fully reoccupied by MOD by 30 November 2004, then Modus will lose £1 million in revenue for each month of delay and it will have to pay the additional costs of keeping MOD staff in alternative accommodation.

b If MOD do not reoccupy Main Building by the end of May 2006, it is entitled to terminate the contract. The date for reoccupation can be extended if the progress of works has been delayed by defined events outside of the contractor's control.

c Modus has accepted all latent defect risk on Main Building and the Old War Office and asbestos risk on surveyed areas in all buildings.

d Before service commencement, Modus is under an obligation to demonstrate that Main Building will meet the ouput specification of the contract. MOD will employ a works monitoring team, including external advisers, to comment on Modus' compliance with the output specification, but will not approve it.

e Modus will be responsible for ensuring that Main Building and Old War Office are properly maintained and repaired throughout the contract, and are handed back to MOD in a good state of repair. Modus will provide MOD with a bond in respect of the works required to secure the performance of its obligations at handback.

f Occupancy risk is shared between MOD and Modus. MOD can terminate its requirement for accommodation in the Old War Office. It can also return whole floors of Main Building to Modus and receive a reduction in the unitary charge. If MOD needs extra capacity in Main Building, it has the option of either adopting more flexible ways of working, e.g. hot desking, reducing space standards or leasing additional space elsewhere.

MOD has retained or is sharing some key risks where it is value for money to do so

1.26 Modus will provide IT infrastructure in the decant buildings and in the refurbished Main Building, whereas MOD bears the risk of providing the IT systems. As its IT requirements continually evolve and could not be predetermined in the same way as its space requirement, MOD decided it was not appropriate to transfer the IT systems risk to Modus. In addition, MOD did not transfer IT risk to Modus for the decant buildings as it did not know when procuring the contract how many different systems were extant. MOD, therefore, contracted with third-party suppliers for the relocation of systems to the decant buildings and will do so for the provision of the future information technology environment and associated IT systems within Main Building. If MOD does not carry out these activities within a defined timescale, Modus can claim for an extension of time and compensation to complete re-occupation of Main Building. To mitigate against the risk of this occurring, MOD needs to plan and co-ordinate its moves thoroughly with Modus.

There is an output based performance measurement system in place to assess whether MOD's requirements are being met

1.27 In PFI deals for serviced office accommodation availability of the services specified to the required standards is necessary if a PFI contractor is to receive full payment of the unitary charge. The payment mechanism puts into financial effect the allocation of risk and responsibility between the authority and contractor. It determines the payments the authority will make to the contractor and the incentives for the contractor to deliver the service required. The performance measurement system should consist of output measures, and, where appropriate and practical, include surveys of the users of the services provided. Nor should the system be too complex as this can lead to disputes. PFI contracts should clearly set out:

- The required service standards;
- The performance measurement system and associated performance deduction systems; and
- The means by which the authority is able to monitor the contractor's performance against such required service standards.

1.28 In this deal:

Unavailability has been defined

a As Main Building is a military headquarters MOD staff will always need to be present. Therefore, parts or all of the buildings can be deemed unavailable even though MOD staff are still working in them and payment withheld for the relevant unavailable space. The entire unitary charge can be deducted once 90 per cent of the buildings are unavailable. Unavailability deductions are higher if the Defence Crisis Management Centre becomes unavailable. MOD and its advisers believe that these terms were better than those achieved on some other PFI deals at the time the deal was signed.

Standards of performance have been defined

b MOD and Modus have agreed detailed performance mechanisms for over 20 services, listed at Appendix 2, with points for poor performance being awarded on the basis of objective criteria and a related scale of financial deductions. Modus' recovery through the unitary charge of up to 20 per cent of its total facility-management costs is at risk each year for poor service delivery. Examples of objective criteria and the methodology for determining the level of deductions are at Appendix 3.

Poor performance can lead to termination of the contract

c MOD can terminate the contract, or require the replacement of individual service providers, for continued poor performance. Persistent poor performance is subject to a ratchet mechanism, and if poor performance reaches a certain level within any six-month, one-year or three-year period, MOD can terminate the contract. In addition, MOD can require the replacement of individual service providers for consistent poor performance. **Figure 5** shows the level of poor performance that can lead to the replacement of service providers and termination of the contract.

The deal contains incentives for the achievement of value for money during the contract period

1.29 Although authorities should ensure that they obtain competitive prices by holding well-run competitions, they will take additional comfort if there are contractual means for maintaining value for money during the contract period. For example, authorities will wish to ensure that the price they have agreed to pay in future years will not be in excess of future market prices for such services. Authorities can do this through benchmarking services, both in terms of price and quality, against market comparators, or through market testing. Where it is not possible to market test for services the authority and contractor need to have an agreed pricing system in the contract.

1.30 Profit and other gain-sharing mechanisms can incentivise contractors to reduce costs to the authority. Such mechanisms may allow the authority to share in any profits above a certain defined level. A particular example where such gains may arise is where a project is refinanced.

1.31 Any mechanism for profit sharing will require the contractor to supply relevant information to the authority. The inclusion of open book accounting will help to ensure that these value-for-money mechanisms are working as they should.

5 The level of performance that can lead to replacement of service providers and termination of the contract

Period	Replacement of service provider if performance points awarded exceed a given percentage of the maximum points available:	Termination of the contract if performance deductions exceed:
In any six-month period	35%	£1,107,000
In any one-year period	25%	£1,845,000
In any three-year period	20%	£4,428,000

Source: Ministry of Defence

1.32 In this deal:

There are mechanisms to control how contract variations will be priced

a MOD has unrestricted rights under the contract to request variations to the contract. Minor changes such as office reconfigurations or churn, the relocation of staff within the building, will be dealt with within the agreed price, or are subject to pre-agreed tariffs, for example the cost of staff moves over and above an agreed number is set out in the contract. If organisational or other changes within MOD, however, require major changes to the scope of the project, the unitary payment will have to be adjusted. If MOD is unhappy with the contractor's pricing of the changes, it can require Modus to conduct a competition.

The contract includes market testing and benchmarking arrangements

b MOD requires Modus to benchmark and/or market test the costs of providing the various different facility management services, as specified in the contract, in year 10 of the project, and at 5-yearly intervals thereafter, to determine whether MOD is paying a fair market price for those services. Cost increases or savings are shared in the ratio of 80 per cent for MOD and 20 per cent for Modus subject to Modus bearing costs up to a maximum of £10 million. Hard services such as maintenance, repair and life-cycle replacement of assets are not subject to benchmarking or market testing, because Modus' bid, and MOD's evaluation, focused on life-cycle costs. The inclusion of open book accounting will help MOD to ensure that value-for-money mechanisms are working as they should.

Although there are no explicit arrangements for sharing refinancing gains there are other profit sharing arrangements

c The contract provides for a value-for-money review after 15 years and then annually. The purpose of the review is to ensure that over the life of the project exceptionally high profits realised by Modus are shared with MOD. If Modus' rate of return is more than 130 per cent of the target post tax real project internal rate of return, 7.05 per cent, the excess is shared 50/50 with MOD. Modus' financial model predicted that it would not achieve the target return until year 26 of the project. Project returns can vary, however, from initial expectations. In particular, refinancing can significantly increase shareholder returns. In our report on the refinancing of Fazakerley prison, shareholder returns initially projected to be 13 per cent had risen to 39 per cent within four years of the letting of the contract as a result of a refinancing. MOD does not have a specific contractual right to share refinancing gains and would have to wait until year 15 to share additional gains under the contractual value-for-money mechanism. MOD sought a specific arrangement to share refinancing gains but this was resisted by Modus. At the time, Treasury guidance said that sharing of refinancing gains was only applicable in limited circumstances. MOD does, however, have the right to approve certain changes to Modus' financing[2] and this would allow it a further opportunity to discuss how refinancing gains will be treated with Modus.

2 Refinancings which increase MOD's termination liabilities, increase certain of Modus' financial costs and ratios, or affect Modus' ability to discharge its obligations under the PFI contract.

Artist's impression of a meeting room after the redevelopment

Part 2

After an effective procurement the benefits of this deal will be similar in cost to the forecast cost of conventional procurement; other factors tipped the balance in favour of PFI

2.1 This part of the report shows that MOD considered a wide range of options and selected Modus through an effective procurement. The price, however, increased during preferred bidder negotiations, mainly due to survey work and increased financing costs, and the final costs of the deal were similar to the forecast costs of a public sector comparator. By the time the deal came to be signed, there were other factors which gave the deal advantages over the alternatives then open to MOD.

MOD achieved an effective procurement process

2.2 MOD succeeded in achieving an effective procurement process which considered alternative options for the scope of the project and the form of procurement before concluding that a redevelopment of Main Building procured under the PFI would be the best option to achieve its objectives. The project which MOD then set out to procure was large and complex. It required a contractor to prepare four buildings to accommodate staff moving out of Main Building, to carry out an extensive redevelopment of Main Building, dispose of surplus properties, move staff back into Main Building and provide serviced accommodation in Main Building and Old War Office until 2030. MOD established a team comprising internal staff dedicated to the project and experienced advisers who succeeded in bringing this large complex project through a competitive procurement to contract letting.

There was market interest in MOD's favoured option and it concluded that PFI would be the best form of procurement

2.3 Departments should consider and investigate appropriate options to secure their objectives. This should include: the best form of project and the best form of procurement. Before deciding whether PFI procurement is superior to conventional procurement, departments should investigate the market to assess its views on whether PFI is the most appropriate option to deliver value for money, and whether it is willing and able to deliver that option. Also, if a PFI project is to be implemented successfully, the public sector will need the right team in place to prepare a tendering strategy and evaluate bids. That team will also require the support of senior management.

2.4 In this deal:

MOD chose redevelopment rather than relocation or rebuilding

2.5 MOD considered a range of alternative options for providing accommodation for its London-based staff prior to assessing the market's interest. Those options were:

- full demolition and rebuild of Main Building;
- relocation to a greenfield site;
- relocation to a new central London site; and
- redevelopment of Main Building.

2.6 MOD rejected the relocation options because of the cost of moving the Defence Crisis Management Centre from Main Building and Ministers' need for the MOD Head Office to remain at the heart of Government. It rejected demolition and rebuild as it thought it was too risky in planning terms, (Main Building is grade 1 listed), was a more expensive option and there would be difficulties in retaining the Defence Crisis Management Centre in an operational state. Even though Main Building with a greater capacity following demolition and rebuild could have generated potential rental income, MOD was reluctant to share the building with other tenants, as it had major security concerns over a mixed occupancy development. MOD's preferred option was to redevelop Main Building.

2.7 In June 1995, MOD decided that the scope for a PFI solution should be explored. Coopers & Lybrand[3] subsequently assessed, on MOD's behalf, market interest in undertaking a project to meet MOD's objectives for Main Building under the PFI. The preferred option which Coopers & Lybrand discussed with the market was for the private sector to:

3 *Coopers & Lybrand is now part of PricewaterhouseCoopers.*

- Redevelop Main Building;
- Decant all occupants of Main Building into suitable accommodation during the redevelopment; and
- Provide facilities management for Main Building once redeveloped covering all appropriate supporting services.

2.8 In investigating the market for such a deal, the advisers also tested interest in a minimum option, involving refurbishment and operation of Main Building's building systems without redevelopment of the structure.

The advisers confirmed that MOD's special requirements could be met through PFI procurement

2.9 From its discussions with a wide range of potential participants in the construction and property sectors, and funders, Coopers & Lybrand concluded that the private sector was willing to meet MOD's requirements through a PFI project. Coopers & Lybrand used a two-stage process to investigate the market. The first stage comprised verbal briefings of market contacts, using the scheme profile agreed with MOD to establish potential bidders' main areas of concern. In the second stage, they tested the market's attitude to proposed risk transfer, to the proposed package of services, to decant and disposal of surplus property, and the cost of refurbishing decant property.

The advisers concluded that a PFI procurement could achieve savings to more than offset additional financing costs

2.10 The advisers considered that for a PFI project to be cheaper than conventional procurement, there would need to be savings in capital and operating costs plus benefits from the transfer of risk. They recognised that this would need to be proved through the procurement process before conventional procurement was rejected. A PFI procurement would also provide contractual incentives for the contractor to complete the redevelopment on time without cost variation to MOD with a payment mechanism that would remunerate the contractor for subsequent service delivery in line with performance.

MOD appointed its advisers through a competitive process and controlled their costs

2.11 Following Ministerial approval for the project in August 1996, MOD needed a skilled team that understood the technical environment and how the Department's requirement could be met. It appointed a multi-disciplinary advisory team to assist its in-house team in defining the project and achieve a successful outcome. After its evaluation, based on a value-for-money test, of 11 shortlisted applicants from a total of 35 responses, MOD chose a team led by PricewaterhouseCoopers (PwC). MOD appointed Herbert Smith as its legal advisers through a separate competition. Both sets of expertise were not available in-house.

2.12 The actual cost of PwC's advice and of the legal advisers up to contract signature are shown at **Figure 6**. MOD kept expenditure to the budgets agreed with PwC, the lead adviser for the deal which provided both financial advice and procured and managed the technical team. The membership of that team and their area of expertise is shown at note 2 to Figure 6.

2.13 The contract with PwC for the multidisciplinary advisory team was subject to a price cap, a detailed scope of work and performance incentives. MOD divided the project into various phases, and agreed a maximum price for each phase, which conformed with points at which MOD approvals were required or when value for money could be clearly checked. MOD reimbursed costs up to the phase cap, on the basis of pre-agreed hourly rates and actual verified hours worked, but subject to a 10 per cent retention until the delivery of approved deliverables for each phase. PwC considers these arrangements were cost-effective for MOD, particularly as it and the advisers it was managing could not pass on cost overruns to the MOD.

6 Advisers' costs totalled £8.78 million

Adviser	Expenditure £m[1]
PricewaterhouseCoopers[2]	6.82
Herbert Smith	1.96
Total	**8.78**

NOTES

1. All figures are VAT exclusive.
2. The expenditure figures include payments to the following advisers subcontracted to PricewaterhouseCoopers:

DEGW	Architects and space planning
Waterman Partnerships	Structural Engineers
Bernard Williams Associates	Cost consultants and facility management specialists
DTZ	Town planners
Roger Preston & Partners	Mechanical, electrical engineers, IT infrastructure
Bovis Program Management	Construction and programming

Source: Ministry of Defence

2.14 MOD did not agree a price cap for legal advice as it considered it could not forecast the scope of the work with sufficient accuracy, because of the size and complexity of the project, to agree a maximum price. Budgets were agreed based on fixed hourly rates, however, and MOD monitored resources used. Where the production of the Invitation to Negotiate was more protracted than envisaged, MOD negotiated a price reduction with Herbert Smith.

Costs increased as MOD required additional work from its advisers

2.15 MOD increased the value of the original contract with PwC by £2.22 million, from £4.6 million to £6.82 million, as it required additional work from them. That additional work covered changes to the scope of the project, such as the inclusion of facilities management at the Old War Office in the deal and increased security measures. MOD did not allow any increases in PwC's costs because the project took longer than expected to complete. Changes to the scope of the project were subject to price caps. In addition, MOD is employing PwC to provide continued technical team support during the redevelopment phase of the project at a budgeted cost of £3.74 million. MOD considers that it would have needed to have spent at least as much for this stage of the project under conventional procurement.

The PFI team had the support of senior management

2.16 MOD established a Project Board chaired by the Second/Permanent Secretary to supervise the project. Members of the Project Board comprised two members and a deputy member of MOD's Equipment Approvals Committee, the three single-service Assistant Chiefs of Staff, and the heads of Directorates with a stakeholder interest in the project. The involvement of these members of senior management reflected the size and importance of the project. The board considered and agreed papers on the major decision stages of the procurement before assessment by the Equipment Approvals Committee and onward submission to Ministers.

MOD maintained competitive tension until the appointment of the preferred bidder

2.17 Competition throughout the procurement process is essential to getting good value from a PFI deal. Although competitive tension will usually draw the best bids out of tenderers, departments should select the best deal available through a systematic evaluation of the costs, benefits and risks of each bid.

2.18 In this deal:

MOD had a good response to the advertisement of the procurement

2.19 MOD restricted the competition to UK based companies, although UK based subsidiaries of foreign companies were eligible to participate, because the project was exempt on national security grounds from European Union procurement requirements. MOD received 47 responses to its advertisement for interest in December 1996 from which it selected 33 companies to pre-qualify for the following stages of the procurement through responding to a Preliminary Information Memorandum. Eight consortia responded, and MOD invited a long list of six consortia to submit outline proposals, which did not have to be costed.

Three bidders were shortlisted but one dropped out

2.20 MOD chose Modus, Modem and Mapeley to respond to an Invitation to Negotiate. Mapeley withdrew before submitting a bid, because two members of the consortium did not wish to continue. Following evaluation of Modus' and Modem's bids, which showed that Modem's bid was overspecified and significantly more expensive than MOD's Public Sector Comparator, MOD invited both to submit Best and Final Offers to maintain competitive tension. Modem threatened to withdraw from this stage due to rising bid costs. To keep Modem in the competition, MOD agreed to consider reimbursing Modem's costs if the PFI procurement was cancelled in certain circumstances if they were appointed preferred bidder, but never formally entered into an arrangement with them.

Bids were evaluated systematically

2.21 Prior to the Invitation to Negotiate stage, MOD selected bidders on the basis of their attitudes to value for money, risk transfer, technical capability, economic and financial standing and innovation. At the Invitation to Negotiate stage and each subsequent stage of the procurement MOD used predetermined criteria under four main headings to evaluate bids received. Those main headings were:

- Suitability of technical and operational proposals which encompassed: compliance with the output specification, quality of working environment, risk of disruption to MOD's operations, interaction of design and facilities management, deliverability and the consortium's management and organisation.
- The net present value of the proposed unitary charge;

- Other financial and commercial aspects comprising robustness of supporting financial projections, value for money of the proposed funding structure, the payment and pricing mechanism and robustness of the consortium structure;
- Legal aspects including the extent to which the bidders were prepared to accept MOD's contractual terms.

MOD secured benefits from competitive tension

2.22 MOD had not originally planned to invite bids after the Best and Final Offer stage, but to confirm prices, achieve full compliance with the output specification and achieve better and appropriate risk transfer, it introduced a further bidding stage. **Figure 7** shows the prices offered by Modus and Modem over the different bidding stages of the procurement. It shows that the additional bidding round achieved a considerable price reduction from Modem, although some price uncertainty still remained, and a marginal price reduction from Modus but Modus' final bid was still £42 million cheaper than the bid from Modem. In addition, MOD's evaluation showed that Modus improved the quality of their technical, operational and commercial proposals through the bid process whereas Modem reduced the quality and robustness of its proposals as well as its price.

7 Modus and Modem reduced their prices

Bidding stage	Modus £m	Modem £m	Difference £m
Invitation to negotiate	659	903	244
Best and final offer	662	763	101
Revise and confirm	647	689	42

NOTE

1. Prices shown are net present values at 2000 prices.

Source: Ministry of Defence

Modus was selected as preferred bidder, having offered a better price for a solution of superior quality to the other bid

2.23 MOD chose Modus as preferred bidder on the basis of its lower price and acceptance of more risk transfer, and its greater compliance with the output specification. Modus scored 2.83 whereas Modem scored 2.67. Full compliance with the output specification would have scored 3.

Modus' price increased by £99 million at 2000 prices after it became preferred bidder due mainly to survey work and increased financing costs

2.24 Modus became preferred bidder in January 1999 but it took a further 16 months before the deal was closed in May 2000. Up to just before financial close Modus' price had increased by £99 million (2000 price levels) (or 15 per cent) because of additional work required, an increase in the level of debt and reserves required to reflect these increased capital costs and an increase in financing costs. About £60 million of the £99 million increase can be attributed to interest rate increases, an increased funding requirement as a result of additional capital expenditure, and other movements in the financial markets.

2.25 £37 million of the price increase arose because of additional work required, mainly as a result of the surveys Modus carried out after it became preferred bidder which identified further building work that would be required because of the condition of Main Building. Modus' equity investor told us that surveys are important to contractors and investors in PFI redevelopment projects because there is a risk that undetected problems with the building may add to the private sector's costs in completing the required work on a contract where there is minimal scope for price variations after the contract is signed. MOD had commissioned various surveys, such as an external condition survey and dimension surveys of each building, during the competition and made the results available to the bidders. MOD had also sought to carry out additional surveys at the Invitation to Negotiate stage on behalf of the shortlisted bidders to enable all building work to be identified and priced competitively. It decided not to do so due to the bidders' inability to agree on scope and because of the intrusive and disruptive nature of the surveys which the bidders then required. MOD was advised that this would have breached Health and Safety rules if carried out whilst the building was occupied. Acceptable additional extensive survey work was scoped and carried out by Modus after it became preferred bidder. But in order to control any price increases arising from Modus' survey MOD asked quantity surveyors Bernard Williams Associates to review any proposed price change by Modus for additional building work against an agreed baseline. MOD only approved such price increases after it was satisfied the work was necessary, could not reasonably have been foreseen or deduced by Modus when bidding and could be demonstrated as value for money by reference to external benchmarks of building costs and Modus' prevailing bid rates.

However, MOD managed to negotiate Modus down by £4 million in the closing stages

2.26 Although Modus had increased its price after becoming preferred bidder, MOD succeeded in securing a late price reduction from Modus. MOD negotiated with Modus and succeeded in persuading Modus to reduce its price by £4 million on the day of financial close to bring its bid below the average expected cost shown by MOD's public sector comparator. After this negotiation, the net increase to Modus' price since becoming preferred bidder was £99 million.

MOD made reasonable initial decisions about financing and during the delayed deal closure kept to these decisions in the absence of a clear case for change

2.27 Decisions on the best form of financing should be left open as long as possible. This will enable the decisions to be informed by conditions in the financial markets that are, barring unforeseen events, likely to apply when the financing is finalised at the time the contract is let. If a decision on the form of financing is taken too early then there is a greater risk that conditions in the financial markets will change before the contract is let in ways which will result in the form of financing that was chosen earlier no longer being optimal.

2.28 In this deal, signing of the contract was not achieved in October 1999 as MOD had expected, but instead was completed in May 2000. Having initially delayed the decision on the financing route as long as possible before endorsing Modus' choice of bank financing in June 1999, MOD then found itself exposed to increasing finance costs and changes in the cost of bank finance relative to bond finance during the delayed deal closure. It decided to continue with bank finance as it saw no clear durable advantage from changing the financing arrangements. It also considered that there continued to be strong qualitative arguments for using bank finance.

MOD's decision to choose bank finance was reasonable in June 1999 when it took this decision

2.29 At the submission of Revised and Confirmed Tenders in December 1998 Modus submitted two bids, one being a bond-financed solution, and the other using bank finance.[4] In MOD's detailed evaluation of Modus' two bids at this stage, the bond-financed model bid offered the better value for money. Modus' calculations suggested that bond finance would be approximately £25 million cheaper than bank finance at that time.

2.30 Both Modus and MOD and its advisers continued to evaluate both bank and bond options during the preferred bidder stage and interviewed the bank and bond providers before a decision was reached on the method of financing. During the period from selection of preferred bidder to June 1999 the differential between bank and bond financing was diminishing. In June 1999 MOD reached a view, following discussions with Modus, that the deal would be completed within four months by October 1999. Modus and its funders had wanted the method of financing to be agreed for some time and MOD decided that, based on the expected four-month timetable for closing the deal, it was not practical, for both cost and programme reasons, to attempt to continue to pursue both bank and bond finance solutions. There was evidence from the bank and bond funders that they would not commence their final reviews of the deal until the decision on method of financing had been made.

2.31 At this decision point, in June 1999, Modus proposed that bank finance should be used. Although bond finance had clearly appeared cheaper when Modus submitted its revised bid in December 1998 movements in the financing markets meant that by June 1999 the difference in cost between bank and bond finance had become marginal and Modus suggested qualitative factors favoured bank finance. MOD and its advisers reviewed these proposals and agreed that bank finance should be adopted. MOD noted that future changes in the financing markets could, however, mean that the bond solution would be cheaper at financial close. But it considered the volatility of the financial markets made it impossible to forecast how the markets for bank and bond finance would move before the deal was completed.

2.32 In agreeing to Modus' proposal that bank finance should be used MOD identified qualitative factors that supported using bank finance. These included: greater flexibility to cope with any contract variations which would require changes to the financing; lower costs to MOD in the event of a premature termination of the contract, because the amount of bank borrowings outstanding, to which termination liabilities are related, declines over the contract period; concerns about how security issues would be dealt with under the public disclosure requirements of a bond issue; and, concerns that the underwriters of a bond issue might not accept Modus being exposed to the same level of financial penalties for poor performance that could be applied in a bank-financed deal. Additionally, MOD and its advisers were concerned that there might be difficulties in arranging a bond issue as they considered the market for PFI project bond issues immature and MOD's

4 The characteristics of bank and bond finance are explained in Appendix 4.

financing requirement of around £550 million would have been the largest PFI financing that had been brought to the bond market.

2.33 Bank financing allows for the possibility of private sector gains from future refinancings. Such gains are not normally possible in a bond-financed solution where the initial terms of the finance remain in place for the life of the bond and cannot be improved upon during this period. MOD says it was aware that Modus' proposal for bank finance created the potential for it to benefit from refinancing benefits. MOD sought, therefore, to obtain from Modus a share of future refinancing gains but, for the reasons noted in paragraph 1.32 (c), Modus resisted this.

2.34 In deciding to adopt Modus' proposals for bank finance, MOD benchmarked the bank terms Modus were proposing to ensure that these were the best the market could offer. At the request of MOD, Modus had sought two rounds of competitive bids for the provision of bank finance and MOD was satisfied, as a result of this and the benchmarking exercise, that competitive terms had been achieved. Modus' capital structure, and terms of finance, are set out in **Figure 8.**

It took MOD longer than it expected to close the deal

2.35 Financial close four months after June 1999 proved unattainable, however, because of substantial outstanding, and additional, survey and technical work, and the sale of the property development arm of Kvaerner (part of the Modus consortium) in Autumn 1999. The initial surveys revealed in Spring 1999 that the buildings were in a poorer condition than had been anticipated. MOD was keen to transfer full latent defect risk to Modus which Modus accepted, provided they could complete an extensive programme of further surveys. Failure to complete the surveys may have resulted in Modus having to increase its price or, at worst, made the deal unfinanceable. Given the importance of surveys to the pricing of PFI redevelopment projects, departments should give careful consideration to the risk to the early completion of a deal that the outcome of surveys present. In this deal, MOD was guided by Modus' previous statement that financial close was achievable by October 1999.

8 Capital structure of Modus

Funding type	Capital (£'000)	Term (Years)	Interest rate
Pure Equity	100	n/a	Note 2
Subordinated debt	53,000	29	Note 2
Senior debt tranche 1	298,700	25	7.61-7.86%
Senior debt tranche 2	200,000	27	7.61-8.11%
Total	**551,800**		

NOTES

1. The senior debt was provided by Halifax PLC and others.
2. The forecast rate for the equity and subordinated debt taken together is 17.63 per cent in real terms.
3. The senior debt interest rates are given as a range as they vary over the loan period. The rates exclude upfront fees and commitment fees.
4. The overall project rate of return is anticipated to be 7.05 per cent in real terms.

Source: Modus

2.36 Following the delays caused by the further survey work most of the outstanding matters were resolved in late 1999. But MOD and Modus were still not able to close the deal, as they had planned, by their revised target of commercial close by Christmas 1999, with financial close in February 2000, reflecting concerns at the lack of liquidity in the financial markets around the millennium period, and given the large amount of finance required for the Main Building project. Agreement was reached on all major technical and commercial issues and contract price in March 2000. After obtaining necessary MOD approvals, financial close was achieved in May 2000.

2.37 Closing the deal in May 2000 was seven months later than MOD's expectation when it chose the financing method in June 1999 that the deal would be closed in October 1999. Deal closure was thus 11 months after the MOD's decision on the method of financing. As a result, MOD was exposed to changes in financing costs (both relative to other forms of finance and in absolute terms) for a longer period than originally envisaged.

2.38 During these closing stages financing rates were increasing including a £10 million cost increase due to the adverse and unexpected impact on bank financing rates of the auction for 3G communication licences in Spring 2000. This contributed to the outcome, noted in paragraph 2.24, that increased financing costs accounted for the main part of the price increase after Modus became preferred bidder.

2.39 MOD did not, however, accept all of the movement in interest rates. Bank rates increased on the day of the financial close because the market knew that the MOD deal was coming but as part of the closing negotiations (see paragraph 2.26) MOD negotiated a cap on interest rates with the banks and members of the Modus consortium taking a reduction in their returns in order to close the deal. MOD did not, therefore, take the full interest rate increase and saved £4 million as a result of this negotiation.

MOD always thought that it was close to signing the deal and saw no clear durable advantage from changing the financing arrangements

2.40 During the delay in closing the deal MOD chose to continue with bank finance as the method of financing in the absence of a clear case for change. The differential between the cost of bank and bond finance was volatile and if a decision had been made to change financing routes, MOD considered that by the time of financial close the differential may have moved the other way. MOD always considered that the deal was close to being closed and it did not wish to delay the deal further by changing the financing arrangements. MOD considered that it left the bank or bond finance decision as late as possible without causing further delays to the project. It therefore saw no clear durable advantage from changing the financing arrangements.

2.41 In hindsight, following price movements in the markets, bond financing may have provided a less expensive financing cost at the time of closing the deal in May 2000, but the impact on the value for money of the deal from using bond finance is uncertain.

2.42 Interest rates for bank finance became relatively more expensive compared to bond finance between June 1999 and May 2000. Two other government accommodation contracts were let at a similar time using bond finance: a £170 million bond was used to finance a contract let in May 2000 for the Treasury Building redevelopment and a £407 million bond was used to finance the contract let in June 2000 for the new GCHQ Building. There were nevertheless other bank-financed accommodation deals which were closing at the time such as UCL Hospital and Glasgow schools. We and MOD estimate that, had bond finance been achievable when the MOD Building deal was finalised in May 2000, it might have been between £1 million and £22 million[5] cheaper than bank finance. But, because of uncertainties surrounding these estimates and how the markets at the time would have priced a bond for this deal, such an outcome from using bond finance, in respect of the pricing and timing of the deal, cannot be viewed with certainty.

2.43 There are various areas of uncertainty. It is possible that, in order to attract sufficient investors for three bond financed government deals, the timing of completing the MOD Building deal (or one of the other two deals) may have had to be changed and/or that the pricing of one or both of the deals may have moved unfavourably. The size of bond that would have been needed (£550 million), as the largest PFI bond to have come to the market and the complexity of the transaction, may have affected the ability to raise that level of bond finance or would have affected the terms on which it could be raised. MOD also has concerns that it may have had to agree to less favourable commercial terms on issues such as risk transfer to enable the bond to be underwritten.

2.44 As a general rule, departments should leave the choice of financing as late as possible so that they maximise their chances of the method of financing being optimal at the time the contract is signed. In this particular case, MOD, in seeking to close the deal without further delays, considers it left the choice of financing as late as possible. It continued to prefer bank finance for a number of qualitative factors including that it provided greater flexibility to cope with any necessary contract variations, and it had concerns about whether the bond was deliverable and likely to deliver the same risk transfer. For these reasons, and because of volatility in the markets and uncertainties about the terms on which bond finance could have been raised for this large deal, MOD saw no clear durable advantage from changing the financing arrangements. In the context of this deal, MOD considers, therefore, that it had good reason to continue with bank financing in finalising the letting of this contract.

There are issues arising from MOD's experience on this deal which other departments need to keep in mind in future PFI projects

2.45 There will always be risks that financing rates will change between selecting the method of financing a PFI deal and letting the contract. To minimise the risk of the choice of finance ceasing to be optimal because of unexpected movements in financing rates departments need to have a realistic view of how long it will take to close a deal and should then defer the choice of financing for as long as possible within the timetable for completing the deal.

5 The upper end of this range is based on the saving that would have been achieved had it been possible for MOD to arrange bond finance on the same terms as that achieved in the GCHQ deal in June 2000. Both projects, in different ways, were highly complex large deals although the GCHQ financing was approximately £140 million less and was for new buildings rather than the redevelopment of existing buildings. The terms of the Treasury Building bond in May 2000, if applied to MOD's deal, would also have produced a similar level of savings but the terms were obtained on a considerably smaller redevelopment project. The contract period for the Treasury building was longer which also favoured a bond solution. The lower end of the range would have arisen if the pricing of the deal had had to be amended in a number of ways from the pricing achieved on the GCHQ and Treasury building deals due to the complexity, size, and length of contract.

The deal was better than the alternatives available in May 2000, the cost of the deal being similar to the forecast cost of conventional procurement

2.46 The cost[6] of the 30-year PFI deal as contracted is £746.1 million. This is within the broad range of estimates of the costs of an equivalent project that is procured conventionally. Compared to the alternatives available when the deal was signed in May 2000 the PFI deal was the better option.

The cost of the deal was in the middle of the range of possible costs for an equivalent conventionally procured project

2.47 In comparison to the PFI deal cost of £746.1 million for the contracted services, MOD estimated that the cost of a conventionally procured project would fall in the range £690 million to £807 million.[7] Given the uncertainties inherent in comparing 30-year forecasts of project costs, the appropriate conclusion from these figures is that the deal will cost a similar amount to a conventional procurement.

MOD estimated the cost of an equivalent conventionally procured project using a public sector comparator

2.48 MOD prepared a public sector comparator (PSC) to estimate the cost of an equivalent conventionally procured project. The PSC generally followed the guidance provided by the Treasury. The initial reference project in 1995 used for this PSC was the project that MOD would have procured had they not chosen the PFI procurement route and was based on an original specification that was given to Bovis in 1995. At that stage MOD was planning a redevelopment project but had not yet considered the PFI route. The PSC was updated at each stage of the PFI procurement taking account of changes in the specification. The final PSC showed a range of possible costs between £690 million and £807 million with an estimated average cost of £746.2 million.

The PSC consisted of base costs and additional estimates for the cost of risks that might materialise

2.49 The estimated average PSC cost of £746.2 million had £643.3 million of base costs and £102.9 million of risk built into it (at 2000 prices). It is not possible to predict conventional procurement costs with absolute accuracy as historically there have been cost overruns of varying magnitudes and there are many risks involved in a 30-year project which may or may not materialise over the duration of the contract. There is therefore a need to estimate the likelihood of these risks occurring and their associated costs, and build these into the calculation. The £102.9 million of risk built into the PSC, represented 17 per cent of the total PSC base costs **(Figure 9)**.

9 PSC broken down by category

NPV (£ million at Q1 2000 prices)	Base costs	Risk	Risk as % of base costs
Capital Expenditure	208.6	61.5	29.5
Replacements	101.7	15.7	16.0
Operating costs	202.4	8.0	4.0
Rent, Contribution in Lieu of Rates, and Leasehold risks	133.1	0.0	
Disposals and dilapidations	-12.8	0.2	
Legislative Change	0.0	4.6	
Latent defects	0.0	2.9	
Loss due to fire etc.	0.0	4.2	
Inflation different to base case	0.0	5.8	
Cancellation charge	10.3	0.0	
Total	**643.3**	**102.9**	**17.2**
Total PSC		**746.2**	

Source: National Audit Office

2.50 The costing of risk is a subjective process and relies on assessments of what risks may materialise during a project. Historic data can assist the costing of risk although this varies from risks that are well known where there is much comparative data, to those where there is little or no comparative data. In its PSC, MOD made use of comparative data from various reports on conventionally procured public sector capital projects. These reports included The Cabinet Office Efficiency Unit Report 1995, a Progress report to the Prime Minister on Government procurement, and the NAO's MOD Major Projects Report 1996. The data in these reports contained little comparative data specifically for redevelopments. In particular, available data included only two MOD refurbishment projects and these had been subject to very different degrees of cost overruns. This lack of comparative data on redevelopments added, therefore, to the degree of uncertainty in the PSC.

6 The cost of the PFI deal could change during the 30-year contract period if Modus is penalised for poor performance, there is profit sharing after year 15, or the scope of the project is changed in ways which permit Modus to seek a price variation.

7 The range of £690 million to £807 million falls within the 95 per cent confidence level with a 5 per cent chance that the actual cost would fall outside of this range (see Figure 11).

10 **List of risk categories used in MOD's PSC**

Risk Category	Modelling period
Capital expenditure	
Capital risks during decant	Decant capital costs period
Capital risks during redevelopment	Redevelopment capital costs period
Risk of overrun in capital works during decant	Decant capital costs period
Risk of overrun in capital works during redevelopment	Redevelopment capital costs period
Operating costs	
Premises services risks during decant	Decant services costs period
Business and staff support services during decant	Decant services costs period
Premises services risks in the long-term (post-decant)	Long-term premises services costs period
Business and staff support services risks in the long-term (post-decant)	Long-term premises services costs period
Replacements	
Replacement risks	Replacement costs period
Rent and CILOR	
Rent and Contribution in Lieu of Rates (CILOR)	No risk included as risk retained by MOD
Disposals	
Dilapidation risks for Metropole	Year 2004 only
Northumberland House property sales risk	Year 2004 only
Salvage risks	Year 2004 only
Legislative change	
Legislative risk during decant	Decant services costs period
Legislative risk in the long term	Long-term premises services costs period
Latent defects	
Latent defects risk	Year 2008 only
Loss due to fire risk	
Fittings insurance risk	All years
Other insurance risk	All years
Inflation different from base case	
Tender price inflation risk	All years
Services inflation risk	All years

Source: PricewaterhouseCoopers

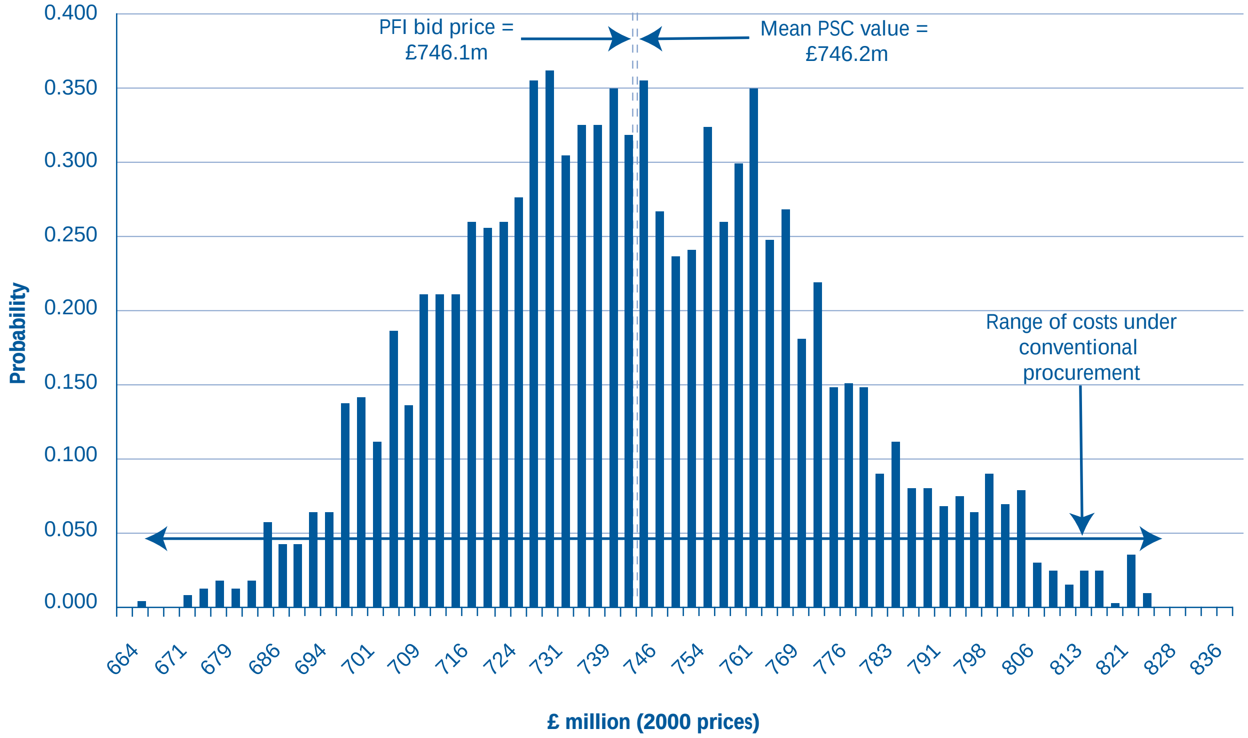
The PSC model was relatively complex

2.51 The different buildings involved and the various stages of the project involving decant, redevelopment, ongoing building maintenance and facilities management led to a relatively complex financial model. This involved an assessment of a large number of risks and variables **(Figure 10).**

Given the risks and complexity of the redevelopment the estimated cost of a conventionally procured project could fall within a wide range

2.52 Where such a large number of risks and variables are involved in a project a single value output from a PSC will give a misleading impression of the accuracy of the estimate of the cost of the project. Depending on how risks materialise and interact with each other during the life of the project, the actual eventual cost could fall within a potentially wide range of values. It is possible to use a technique known as Monte Carlo simulation to estimate the probabilities of each of these values occurring and to plot this as a probability distribution.

11 The PSC represented as a distribution



NOTE

1. To arrive at the final mean PSC figure (£746.2 million) MOD made three adjustments to initial costings totalling £24.2 million. These were: an adjustment to the risk profile following increased capital costs arising from the survey programme (£8.0 million); a landlord credit for early release of a central London building (£5.9 million), and the estimated costs of cancelling the project (£10.3 million).

Source: National Audit Office

This is the approach that MOD used. It then added three adjustments totalling £24.2 million to produce the final PSC cost distribution **(Figure 11)**.

2.53 In models of this nature it is common to see a skewed distribution reflecting the fact that the construction cost of projects have historically tended to overshoot rather than undershoot their expected values. In this instance, the distribution (see Figure 11) tended towards a symmetrical distribution. MOD explain that this is due to the capital cost risk being only one of several significant risks included in the analysis with the effect of alternative rates of inflation and also change in operating costs being very dominant in the final analysis.

The PSC was used as a tool to review the value for money presented by the PFI bids and to evaluate the constituent elements of the bids

2.54 At each stage of the procurement MOD compared the PSC to the PFI bids. MOD used this value-for-money comparison as a tool in evaluating the PFI bids. MOD considered it important that, for a PFI deal to go ahead, the bid should be less than the midpoint of the distribution of possible costs shown by the PSC.

2.55 MOD also evaluated the constituent elements of the PFI bids in relation to equivalent elements in the PSC to identify where the value in the proposed deal was coming from and to evaluate the viability of the bids. At each stage, up to and including the selection of preferred bidder, the capital costs, facilities management costs and life-cycle costs in the bids were compared to the PSC. Between the selection of preferred bidder and contract close this analysis was carried out again when certain cost elements in the PFI bid changed.

MOD concluded that the deal was value for money since it delivered the benefits outlined in the business case and the PFI route had benefits over conventional procurement

2.56 In MOD's final comparison before closing the deal Modus' price of £746.1 million was in the middle of the range of possible costs that MOD estimated would have arisen under conventional procurement. Recognising the uncertainties in the cost comparison, particularly in respect of the estimated costs of the project using conventional procurement, MOD concluded that the comparison demonstrated that, in broad financial terms, the PFI deal would cost equivalent to conventional procurement.

2.57 MOD also considered that the PFI solution would deliver overall value for money because, the costs being equivalent to conventional procurement, it would deliver the same benefits as the original business case for the project, and other factors tipped the balance in favour of PFI. The contractor would be incentivised to complete on time, the PFI cost was more certain than the possible cost outcomes under conventional procurement and there would be specified service standards with payment deductions for poor performance.

For negotiation and presentation purposes MOD placed emphasis on achieving a price slightly better than conventional procurement

MOD used the value-for-money comparison to secure a £4 million price reduction

2.58 MOD's PSC was more expensive than the PFI option throughout the tendering stage of the procurement. At the appointment of Modus as preferred bidder the PSC showed the estimated cost of conventional procurement as £25 million (year 2000 price levels) higher than Modus' bid.

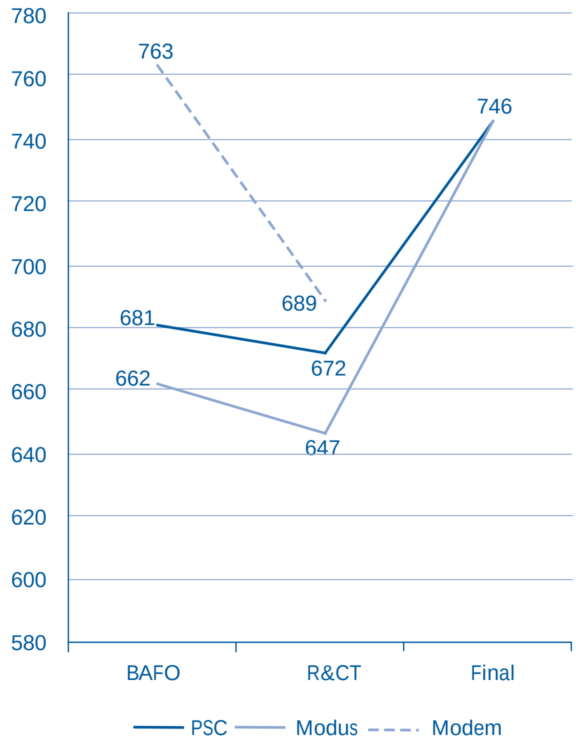
2.59 During the extended preferred bidder stage Modus' bid increased relative to the PSC, mainly as a result of changing finance costs **(Figure 12)**. Capital costs also increased due to work arising from the extensive survey programme, but these affected both the PSC and the PFI bid equally. The PFI price was consequently £4 million higher than the PSC on the morning of the day of financial close, 4 May 2000.

2.60 In finalising the deal on 4 May 2000, MOD decided to use the average cost of conventional procurement of £746.2 million shown by its PSC as a negotiating tool to achieve a final price reduction. It informed Modus that it would only be able to close the deal if Modus' price was lower than this benchmark of the cost of conventional procurement. As noted in paragraph 2.39, Modus then agreed to reduce its price. As a result of Modus' shareholders and banks accepting lower returns from the project, and general reductions to financing rates which occurred later that day, Modus' price was reduced by around £4 million to £746.1 million, £100,000 less than MOD's benchmark price for conventional procurement.

This helped MOD to present the deal as value for money although it was aware that the reduction did not significantly change the value for money of the business case

2.61 MOD considered it important for presentational purposes in its final analysis of the proposed deal that the final PFI deal price was below its estimated average cost of conventional procurement. Although MOD referred to this slight cost margin in favour of the PFI deal as

12 PSC vs. bids



NOTE

1. This figure shows that Modus' price was estimated to be £25 million lower than the PSC when it became preferred bidder, but this estimated cost difference in favour of the PFI option had reduced to £100,000 by financial close.

Source: Ministry of Defence

supporting the case that the PFI deal was value for money it also understood the uncertainties in the value for money comparison. MOD recognised that a reduction of £4 million, although helpful in securing a better deal for MOD, had not significantly changed the value for money of the deal with the cost of the PFI deal, in broad financial terms, still equivalent to conventional procurement.

Compared with the alternatives available there were benefits which supported MOD's decision to proceed with the deal in May 2000

2.62 In February 2000, MOD costed the various options open to it prior to closing the deal. These included: (i) aborting the deal and arranging a new conventionally procured deal at some future date or (ii) scaling down the project to one which would just involve essential building maintenance without a major redevelopment. MOD concluded that, compared with the alternatives, there were clear benefits from finalising the deal with Modus.

Cancelling the PFI deal in early 2000 would have led to delays in realising qualitative benefits

2.63 In addition to the ongoing PSC exercise, MOD correctly evaluated the alternatives available to it in February 2000 prior to closing the deal. Reviewing options is key to investment decisions as is recognised in the Treasury Green Book. MOD identified that its options in Spring 2000 were: to close the deal; to defer closure in the hope of negotiating some further concessions from Modus; or, to abort the deal. If the deal was aborted the alternatives were then arranging a new conventionally procured deal at some future date or scaling down the project to one which would just involve essential building maintenance without a major redevelopment.

2.64 MOD concluded that finalising the deal with Modus on the terms it had negotiated was the most favourable option taking account of both value-for-money considerations and the effect on the ongoing operations within Main Building. Delaying or cancelling the deal would have resulted in a reduction in building utilisation, a delay in realising benefits arising from the more efficient working practices and space management to be derived from the proposed PFI project, further delay in obtaining a fire certificate, and meeting standards required by health and safety requirements. MOD judged that this would have resulted in substantial increased costs.

There was no guarantee that MOD would have got a better deal by alternative means

2.65 MOD was concerned that if it delayed closing the deal to seek some further concessions from Modus then Modus might walk away from the deal (although Modus, like MOD, had incurred substantial time and costs in developing the deal so may have been reluctant to lose the chance to complete the deal). MOD also considered that there was no guarantee that it could get a better price if the project was retendered to encourage new PFI bids from other consortia.

2.66 Although MOD's PSC probability distribution suggested that, if improvements could be achieved in controlling cost overruns, it might be possible to achieve a lower cost under conventional procurement, this could only be achieved through a significant improvement in public sector project management skills. The likelihood of a substantially cheaper outcome under conventional procurement was never sufficiently great to suggest that MOD should have abandoned its plans of pursuing a PFI solution.

Cancelling this large project at such a late stage could have damaged the PFI market

2.67 MOD believed that cancelling the project at such a late stage would have affected its reputation in procuring big projects. This could have the effect of increasing future bid prices from the private sector for MOD projects as well as damaging the PFI market as a whole.

Some general lessons emerge regarding the use of PSCs in the PFI procurement process

In some circumstances the PSC may be a useful benchmark against which to assess value for money in a PFI procurement

2.68 A comparison of the expected cost of a PFI solution with the range of possible costs that might have arisen under conventional procurement has often been used as a measure of the value for money of a proposed PFI solution. In some circumstances, this form of comparison with a PSC may be useful. It may assist decisions at the early stages of a procurement when alternative forms of procurement are being considered if conventional procurement is a credible option and there is sufficient data on what the costs of a conventional procurement may be. But, as the PSC is only dealing with possible costs, and necessarily incorporates judgements and assumptions about the future which may not turn out to be correct, other factors may also influence the choice of procurement. During the evaluation of PFI bids a PSC may identify scope for seeking improved pricing offers from the bidders or, if the value for money of the PFI solution appears doubtful, reassessing the form of procurement. The cost comparison against a PSC can also be helpful in post-contract analysis as it can help departments to consider their approach to future projects where conventional procurement remains an option.

2.69 In this project MOD found the PSC useful in reaching its decision initially to go down the PFI route, and later when analysing the bids as the procurement progressed. The PSC also enabled MOD to negotiate a late price reduction from Modus as MOD used the PSC in its negotiations as a price level which the PFI price needed to at least match if MOD was to agree to finalising the PFI deal.

Other types of comparison, however, become important for the business decision of whether to proceed with a PFI deal

2.70 In the final stages of a PFI procurement, the PSC comparison becomes, however, increasingly theoretical since there are many additional costs that a department would bear if it chose to cancel a PFI project and to commence the procurement again using conventional methods. For example, there would be cancellation costs and delays to the realisation of benefits. In addition, there would be no certainty that the future price under conventional procurement would match or improve upon the current PFI price. In this case, in February 2000 MOD estimated these additional costs to be at least £55 million including £10 million to cover cancellation costs. These are real costs that were relevant to the business decision of whether to proceed with the deal, even though technically they would not be included in a PSC which seeks to measure the comparative cost of an equivalent project using conventional procurement.

2.71 In terms of making a business decision as to whether to go ahead and sign the PFI contract, a department should, in the late stages of a procurement, assess the relative costs and benefits of the different options, which are then open to it. MOD carried out this form of comparison in this project when, in February 2000, it assessed the real costs that would be incurred under three options then available: cancelling the PFI deal and just carrying out essential building maintenance, deferring closure of the deal in the hope of negotiating some further concessions from Modus delaying it by two years to allow a new procurement under either PFI or conventional procurement to take place or going ahead as planned. As noted in paragraph 2.64, this analysis confirmed that proceeding with the PFI deal was then the preferred option.

2.72 Another form of comparison which may also be valuable in the late stages of a procurement is the use of a 'should cost' model which seeks to benchmark each element of the preferred bidder's proposed solution. This is useful if there are price changes during the preferred bidder stage of a procurement where the competitive tension is reduced. In MOD's procurement the PSC included detailed cost elements and was used as the basis of evaluating and negotiating the PFI bids. Where a PSC is not as detailed as that used by MOD, or where the costs are likely to be significantly different under PFI procurement, a 'should cost' model will help to ensure that the bids represent value for money.

Departments need to be aware of the limitations of the output of financial models

2.73 PSCs are only a broad indication of the cost of a project under conventional procurement. A PSC is based on uncertain estimates of cost and risk and will produce an output that must be understood in the light of such uncertainties. This needs to be taken into account when using PSCs to assess the value for money of a PFI deal. PSCs should be used alongside a range of other information when assessing the value for money of PFI projects.

2.74 Departments need to weigh up the complexity of a financial model against its usefulness and materiality level. An overcomplex model may not produce a more accurate result than a simple one and in addition there is a greater risk that complex models may contain undetected errors.

Artist's impression of open plan offices after the redevelopment

Part 3

Contract management has been good

3.1 This part of the report shows that decant out of Main Building was completed ahead of schedule and preliminary building work has started. MOD has been pleased with the progress made to date and has been building an effective relationship with Modus. Although it is usual for contractors to be responsible for performance measurement, MOD decided at the outset to take responsiblity for service audits until a robust climate of compliance and good performance has been established.

The project is proceeding ahead of plan

Decant from Main Building was completed ahead of plan

3.2 MOD considered that one of the benefits of the PFI project was the discipline that it imposes on the many teams and units within Main Building, as well as Modus, to meet the decant deadlines. This benefit has already been realised as the decant of staff from Main Building started on 25 May 2001 and was completed on 20 August 2001, ahead of the contractual decant completion date of 10 November 2001.

3.3 Some problems arose during the first weekend's moves but these did not recur. As the 'moves' teams became more experienced and greater supervision of the moves subcontractor took place, the process improved. All staff were operational on the Monday morning following their weekend move.

The building work has started

3.4 **Figure 13** shows the work Modus is required to undertake to complete the redevelopment of Main Building. As Modus more than met the target for completion of decant from Main Building, it was able to start building work on schedule.

MOD is managing its relationship with Modus

3.5 In our report 'Managing the relationship to secure a successful partnership in PFI projects' we said that 'even with the right contractual framework a successful partnership between authority and PFI contractor will only be achieved if the framework is made to work in practice'. This will require, amongst other things, good governance arrangements, colocation of staff and reassessments of the relationship. MOD has addressed these issues and recognises that its ability to have high-quality serviced accommodation available for its Head Office staff until 2030 depends on it building an effective partnership relationship with Modus. In particular in this deal:

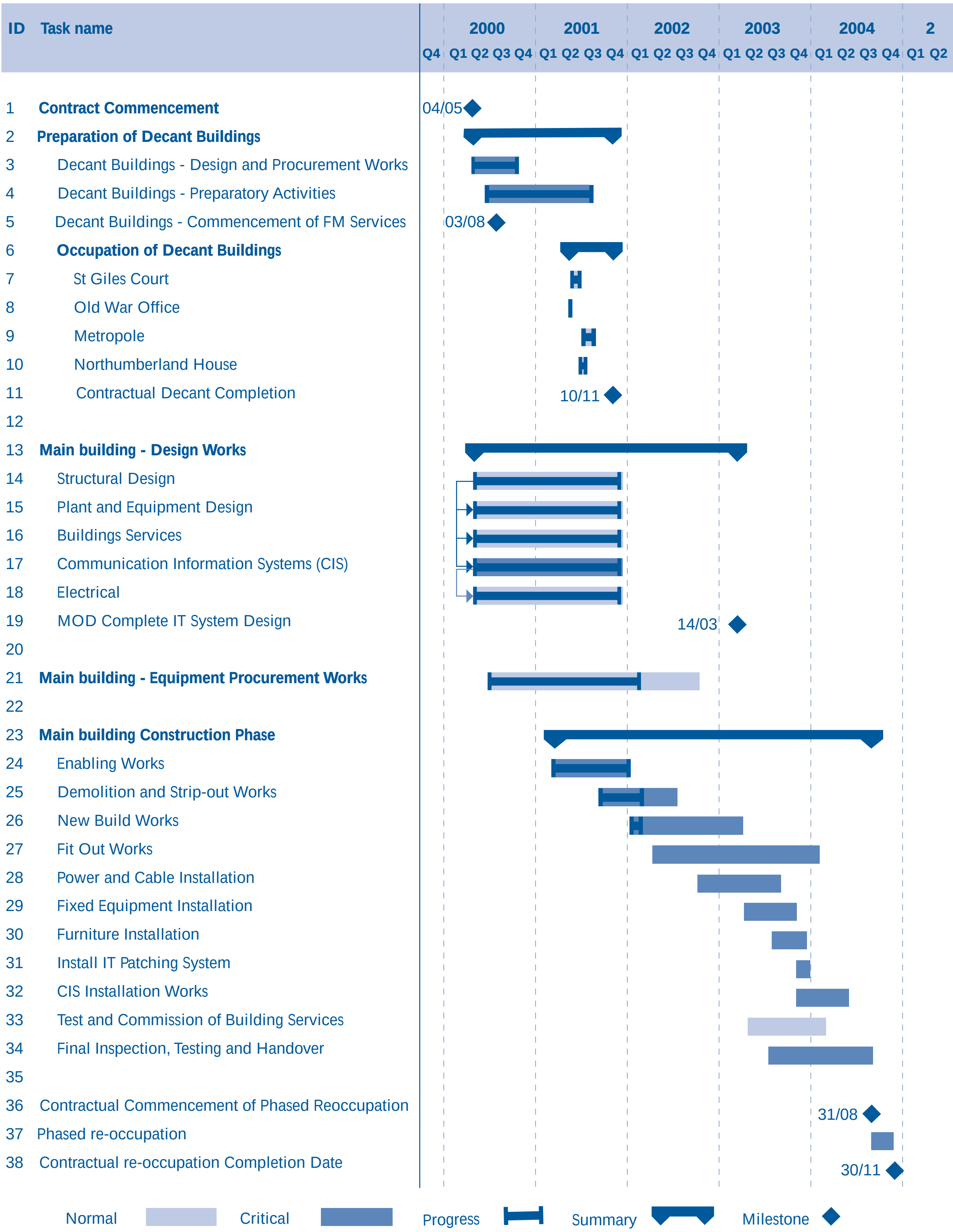
a Modus, the Main Building Redevelopment team (MBR), the contractors, Skanska and Amey, have attended workshops aimed at understanding each other's businesses to establish a partnership approach based on a common vision of how they will work together to achieve a mutually successful outcome to the project. This requires a continuing commitment and willingness to overcome cultural differences.

b MOD and Modus have agreed a common goal 'to work together and develop a strategy which delivers on time an environment that will satisfy the majority of users and one where the operational functions are optimum'. All parties recognise that an open and trusting relationship is essential to the successful delivery of the project.

c MOD set up during the competition stage a partnership co-ordination team to work alongside the contractor to develop the individual payment mechanisms, audit protocols and procedures. These are now being refined, to ensure that the contractor remains incentivised to deliver the required performance standards.

d As stated in Part 1, appropriate change procedures have been included in the contract.

13 MOD Main Building Redevelopment PFI - Summary Programme



NOTES

1. Activities 1 to 10 show actual dates for activities
2. Activities 11 to 38 show the programmed dates for activities

Source: Ministry of Defence

e MOD has placed importance on securing continuity of staff and the key members of the negotiating team have remained in place to ensure a smooth transition and bedding in of the contract.

f In addition to regular customer satisfaction surveys commissioned by Modus, MOD has recently conducted a comprehensive staff survey to assess the level of satisfaction with the serviced accommodation provided in decant.

g Senior officials retain a close interest in the project and meet with Modus' shareholders on a regular basis.

MOD and Modus have established an appropriate governance structure

3.6 The arrangements for monitoring a long-term contract and any changes to it are crucial if a partnership is to continue to deliver the services required. These arrangements, known as a governance system, usually comprise a number of groups of both authority and contract staff who have responsibility for running the contract.

3.7 MOD chose to define the governance structure at a high level within the contract. It specifies that the performance of the contract would be discussed between MOD and Modus once a month, and a liaison procedure would be used to discuss disputes before they escalated into the formal disputes resolution procedure. The contract also allows each side to call future planning and other meetings when they so require. MOD did not consider it appropriate to specify the governance arrangements in more detail to avoid subsequent changes requiring a contract variation. By September 2000 a working level substructure had been agreed.

3.8 MOD and Modus have agreed a hierarchy of six working groups to govern the contract. Subordinate working groups were set up shortly after contract signature to consider various aspects of the project and the structure is kept under constant review. For example, they established a working group for the decant phase of the project which was disbanded after the completion of that phase. **Figure 14** shows the make-up of the permanent working groups. In addition, the Director of the MBR team has a regular monthly meeting with the Managing Directors of the companies in the consortium where there are no fixed terms of reference.

Appropriate dispute resolution procedures are in place

3.9 Authorities and contractors will generally wish to avoid going through the courts to settle any disputes. Dispute resolution procedures are often more efficient and cost-effective. MOD and Modus have agreed a liaison procedure between representatives within their respective organisations to settle any disagreements. Only if this procedure does not work, will the dispute be referred to MOD's and Modus' senior executives. The arrangements do allow for escalation to mediation, adjudication and arbitration. If MOD disagrees with Modus' calculation on the value-for-money review, it may refer the matter to an independent auditor.

Modus is colocated with MOD

3.10 MOD's MBR team is located at St Giles Court together with Modus' and Amey's management teams. Skanska, the consortium's construction contractor is located within Main Building, and MBR's design and construction team can use desks at the site as does the PwC consulting programme manager.

The performance measurement system is working and is being refined

At the outset, MOD has greater responsibility for performance monitoring, and this will be kept under review

3.11 In most PFI contracts, the contractor is responsible for measuring the quality of the services delivered against the standards laid down by the authority. Authorities have the right to monitor the validity of the contractor's information since it is this that determines whether any performance deductions will be made.

3.12 MOD wishes to establish a robust climate of compliance and good performance, and to do so it decided to be responsible for the service audit element of the performance monitoring system. MOD told us that it only required three additional staff in its Partner Co-ordination Team (PCT) to carry out service audits. The annual cost of those additional staff is some £75,000. At some future date, which may be after Main Building has been re-occupied, MOD plans to reduce the number of service audits it undertakes when it considers that Modus has established a robust climate of compliance and good performance and MOD can rely on Modus' self-monitoring regime which it feels it cannot do at present. In this project, MOD requires Modus to ensure that all relevant aspects of the project are the subject of a project quality management system which complies with British Standard 9001:94. As we pointed out in our study, 'Managing the relationship to secure a successful partnership in PFI projects', authorities need to reassess the contractor's monitoring procedures and its own to ensure the integrity of the performance information they receive. MOD plans to audit the veracity of self-monitoring systems from time to time.

14 **Governance arrangements for the project**

Ministry of Defence	Group	Contractor
	Liaison Group	
MOD Personnel Director	Meets quarterly	All shareholders in Modus
■ Terms of reference: ❑ To provide an opportunity for stakeholders to discuss the project with the client and vice versa ❑ To discuss all matters that have not been resolved in lower-level groups.		
	Team MBR	
Director and his two assistant directors of MBR	Meets monthly	Senior representatives from Modus, Skanska Whitehall, Amey Whitehall
■ Terms of reference: ❑ Principle forum to review project progress and performance ❑ Management of project risks ❑ Identification and discussion of present and future issues ❑ Review of key performance indicators.		
	Redevelopment communications group	
MBR	Meets monthly	Modus, Skanska Whitehall, Amey Whitehall
■ Terms of reference: ❑ Developing messages to ensure that all communications needs were met ❑ Determining the most appropriate media for each message to ensure it is received ❑ The content and style of internal and external publications ❑ Agreement around events and their timing.		
	Capital works liaison	
MBR	Meets fortnightly	Modus - Construction Director Skanska Whitehall - Operations Directors Amey Whitehall - Head of Facilities
■ Terms of reference: ❑ Review of capital works programme ❑ Review of critical dates schedule ❑ Reports from subordinate committees ❑ Review of key performance indicators ❑ Review of key risks.		
	Facilities management liaison	
MBR Partner co-ordination team	Meets monthly	Modus - Facilities Management Services Director Amey Whitehall - Commercial, Operations and Customer Services Directors Skanska Whitehall - Facilities Manager
■ Terms of reference: ❑ To provide a forum to resolve any issues affecting the provision of Facility Management services in accordance with the contract. The aim of which is to ensure that the services contracted for are provided in accordance with the contract, the agreed performance standards are achieved and the level of deductions is minimised.		
	Design and Co-ordination approval	
MBR	Meets monthly	Modus - Construction Director Amey Whitehall - Head of Facilities Skanska Whitehall - Construction Director
■ Terms of reference: ❑ Reviewing progress on major design issues ❑ Reviewing critical dates affecting design programme ❑ Monitoring and reviewing design documents ❑ Reviewing key design risks.		

Source: Ministry of Defence

3.13 MOD relies on Modus' management information from the Helpdesk to determine whether faults logged with the Helpdesk have been rectified within pre-defined grace periods. MOD has read-only access to Helpdesk data provided by Modus covering reported events. Overdue calls may be liable to performance deductions. In addition, both MOD and Modus can declare Unavailability.

3.14 Services are monitored at an agreed frequency, which varies by service from daily monitoring for cleaning to monthly monitoring for, say, pest control. MOD undertakes service audits with the company of Modus' staff, although the latter will not know which part of a building will be subject to a service audit until the actual day. This should act as an incentive for them to clean all parts of a building for example, and allow both parties to agree whether required standards have been met or not.

3.15 The Helpdesk service is, itself, audited to determine whether the calls have been categorised correctly in terms of priority (urgent, high, or routine), time taken for the Helpdesk to answer calls and whether feedback has been appropriately provided to the callers. A maximum of 10 per cent of monthly logged calls, currently running at 2,000 a month, can be audited, although MOD is at liberty to review all calls logged. The maximum deduction will be made if all Helpdesk queries audited are dealt with incorrectly.

The performance measurement system is operating and performance deductions have been made

3.16 Since the start of the contract, MOD has made approximately £108,100 of deductions made under the performance measurement system, and these are shown in **Figure 15** by service. As with any new contract there were teething problems agreeing the level of performance deductions in the early stages of the project. MOD and Modus resolved these disputes without reference to contractual dispute procedures.

MOD and Modus are continuing to refine performance measurement tests

3.17 The contract includes individual performance mechanisms for each service, with detailed checklists and measurement protocols where appropriate, particularly for asset management, were developed. Both parties, however, accepted that the initial and decant periods would provide useful opportunities for the audit methodologies to be refined as a result of auditing experience. In the case of cleaning, for example, they found that a sweep of the hand to measure the visibility of dust on horizontal surfaces led to disputes. MOD now uses tissue paper to measure this aspect of cleaning. MOD and Modus agreed that it would be useful to document agreed revisions to its performance measurement practices, and to produce an operations manual, which held all information relevant to compliance monitoring. This manual was finalised in October 2001. Besides using the manual, new members to the PCT team shadow more experienced auditors to gain experience of what is required of them.

15 Performance deductions to date total £108,100

Services	Performance deductions £
Cleaning	34,400
Reception	1,200
Grounds maintenance	4,000
Catering	1,300
Asset management	1,000
Other	8,000
Helpdesk service audit	9,000
Helpdesk	49,200
Total	**108,100**

NOTE

1. As at 14 March 2002.

Source: Ministry of Defence

3.18 Initially, MOD undertook quality assurance tests to ensure accuracy and consistency across the different team members of the PCT only once every three months. MOD recognised that this was too infrequent and the frequency has now been increased.

Progress is being made on road-testing open-plan design at St Giles Court

3.19 MOD's Director General Management Organisation (DGMO), consisting of approximately 100 staff, has been occupying the trial open-plan space in St Giles Court since June 2001. The experience of using this new working environment will help to achieve a smooth transition to the redeveloped Main Building. Trials in the St Giles Court facility have included the establishment of protocols and practices to help optimise the use of the new workspace in support of better working practices. The trials will also look to support solutions to issues such as noise, distractions, confidentiality, security and perceived loss of status together with the evaluation of new furniture and fittings. These activities are aimed at securing greater staff understanding, involvement and ownership of the new working environment.

3.20 MOD is already receiving very positive feedback from the open-plan trials. A programme of respondent consultation sessions has already taken place, together with various space utilisation and workplace performance surveys, ad hoc workshops and a number of group and individual interviews. On the whole, the occupants of the trial area have settled quickly into the new office and feel that the space is delivering what it was intended to deliver. In particular, there has been:

- an increase in formal and informal interaction with a corresponding increase in inter- and intra-team understanding and knowledge;
- a preference for open-plan working from many of those who moved from single-occupancy cellular offices;
- approval of the functionality and utility of the new furniture; and
- a positive feeling about the new working environment in general.

3.21 The feedback is also informing the areas that need to be further improved such as the current level of background noise; the right level of technology to support open-plan working; the control of the office working environment (heating and lighting) and the mix of workplace settings. MOD will bring the findings and conclusions of all these studies together in a final report in early 2002 to use to design the use of open-plan place in the redeveloped Main Building.

Appendix 1 National Audit Office Methodology

1. The National Audit Office examined the extent to which the PFI contract for the redevelopment is likely to deliver value for money and MOD's management of this major project.

2. We used an issue analysis approach to design the scope and nature of the evidence required to complete this examination. That is, we set a series of high-level audit questions that we considered it would be necessary to answer to assess the success or otherwise of the procurement, and collected evidence accordingly. For each of the top-level questions, we identified a subsidiary group of questions, linked logically to the main questions, to direct our detailed work and analysis. Our general report *Examining the value for money of deals under the Private Finance Initiative* (HC 739, 1998-99) provides an outline of this general methodology which acts as a starting point for all of our PFI examinations. We also drew on relevant issues covered in our other PFI reports, particularly those dealing with accommodation projects or the financing of large PFI deals.

3. The top-level questions we set were:

   - Was the procurement process good?
   - Was a good deal achieved?
   - Is the deal likely to deliver in practice?

4. Our main evidence has been derived from examining documents provided for us by MOD, interviews with relevant staff within MOD and its advisers.

5. We also commissioned expert consultants to undertake detailed work on our behalf. We engaged Theodore Goddard, a firm experienced in acting as legal advisers on Private Finance projects, to examine the contract and advise on how well it protected MOD's position. We also engaged Tectus, a firm of architects and space management consultants, to advise us on MOD's definition of its space requirements and the final design solution.

Appendix 2 Services provided by Modus

1. Asset management.
2. Cleaning.
3. Reprographics.
4. Mail.
5. Catering.
6. Management information.
7. Reception.
8. Portering, internal planting, seasonal decorations and flags.
9. Text preparation.
10. Records management.
11. Conferences, meetings and exhibitions.
12. Space planning.
13. Equipment monitoring.
14. Overnight accommodation and laundry.
15. Grounds maintenance.
16. Parking management.
17. Pest control.
18. Nursery.
19. Business continuity planning.
20. HelpDesk.
21. Space planning for decant.
22. Space planning for reoccupation.
23. Off-site scanning facility.

Appendix 3 How the performance deduction mechanism operates

1. As an incentive for the PFI Contractor to provide the required level of service, there is a performance threshold applicable to each service. If the level of service in a performance month falls below that threshold then a performance deduction can be made (through a system of performance points).

2. Each service is subject to a performance-monitoring regime, comprising one or a combination of Service Audits, Helpdesk Events and Customer satisfaction surveys. Each audit regime has an allocation of points, with each point valued at £300.

3. There is a maximum annual performance deduction for each service in any performance year (this deduction is capped at 30 per cent of the annual charge for Soft Services, and 50 per cent for Hard Services). There is a maximum number of performance points available for awarding in any performance month.

Service Audits

4. The monitoring regime for each service varies, but the basic criteria comprise 20 audits, each audit recorded as either a pass (zero score) or fail (1 point). At the end of the performance month a monthly percentage is calculated by summing the individual audit scores, dividing the result by the number of audits and multiplying that figure by 100 to give a monthly percentage score. If the month's percentage score is less than the performance threshold required, then no deduction is made. If it is greater than the threshold, then the following formula is used to calculate the deduction:

   - Number of service audit points available x (Percentage Score - (100 - The Threshold)) / Threshold.

5. If five of the 20 audits fail then the monthly percentage is 25 per cent (actual performance achieved 75 per cent). The threshold for reprographics is 90 per cent, therefore, that month's performance will incur a performance deduction. There are a total of 114 points available for Reprographics service audits, and the deduction is calculated as follows:

   - The total points awarded will be 114 x ((25 - 10)/90) = 19.
   - The Total deduction will be 19 points x £300 per point = £5,700.

6. Applying the same performance level to another service would result in a different deduction as the number of points available differs from service to service. For example, Text Preparation, has 15.38 points available, the calculation therefore would be 15.38 x ((25 - 10)/90) = 2.56 points. Thus the deduction would be 2.56 points x £300 per point = £769.

7. The performance-monitoring methodologies differ for each service, with some slightly more complex than others, for example, Internal Cleaning.

8. Each day 12 sample areas (Zones) are audited between 07.00 and 08.00 hours. The 12 zones selected for auditing must comprise the following area types: 5 Work spaces, 1 Meeting space, 1 Ancillary space, 3 Support spaces, 1 Common space and 1 'Other' space.

9. Each zone is audited using a checklist specific to that area type. Each item on the checklist has a weighted score (as some failures have a greater significance than others). Each accommodation category or zone also has a weighting (to reflect its relative importance).

10. The result of each audit is recorded by two figures: 'Total Points available' for that zone; and 'Total Non-Conformances' awarded. These scores are entered into a spreadsheet, where the percentage score for each of the 12 audits is multiplied by the area weighting to produce weighted non-conformance scores. A daily performance percentage is then calculated by using the following calculation:

    - (Total weighted score / maximum possible weighted score) x 100.

11. At the end of the month a monthly percentage score is calculated adding up each of the daily scores and dividing by the number of days audits that took place in that month.

12. This performance percentage is then compared against the threshold for the service. If the performance level is less than the threshold a penalty deduction is calculated using the same formula as for the other services but with 150.19 points available.

13. For example, if the Internal Cleaning Service audit achieved 80 per cent then the deduction would be:

- 150.19 x ((20 - 10)/90) = 16.687 points.
- The Total deduction would be 16.687 points x £300 per point = £5,006.33.

Helpdesk Events

14. Calls to the Helpdesk are classified as Urgent, High Priority or Routine and allocated a priority rating ('Helpdesk Grace period') in which the call should be resolved, or a suitable response made.

15. Performance points are awarded for those calls that are not resolved (or suitably responded to) within that grace period. These performance points are 0.1 performance points for routine calls, 0.2 for high priority and 0.4 for urgent calls. There is a ratchet system to increase the value of individual points awarded. If the response period exceeds twice the grace period, then the points are doubled, if it exceeds three times the grace period then the points are trebled.

16. At the end of each performance month, the Helpdesk produces a report detailing those Helpdesk calls that were not resolved within that grace period, and the points awarded.

17. The total figures from the report are entered into a spreadsheet to calculate the 'Helpdesk' performance deduction. Each service has a maximum allocation of Helpdesk performance points. At the end of each month a deduction is calculated for each of the services based on the number of points incurred in that performance month. There is a reduction mechanism to 'reward' those services that met the Service Audit performance threshold (subject to a maximum of three points). For example, if five points are awarded for Internal Cleaning Helpdesk calls. The deduction could be 5 x £300 = £1500. However, if the service audit had achieved the thresholds for that service, then the formula for rewarding this would reduce the actual points awarded to two points and the deduction to £600.

Unitary Payment

18. At the end of the performance month, the PCT notify Modus and ABS of the results of the Service Audits and the Helpdesk audit for that particular performance month.

19. Modus then issues its Invoice for the Unitary Payment to the MBR team, with the performance deductions identified in the invoice.

Appendix 4 Characteristics of Bank and Bond financing

Financing characteristic	Bank Financing	Bond Financing
Source of funds	Directly provided by a bank or possibly a group of banks that form a syndicate.	Funds provided by bond investors. A potentially disparate group that can include anyone from large financial institutions to individual investors.
Arrangement of funds	Direct negotiations between the project company and the bank.	Arranged via an intermediary known as the bond arranger.
Certainty of funds	Once the project company and bank reach an agreement there is certainty over receiving the funding.	There is less certainty with a bond. The project company will only know if funding is forthcoming once the bond arranger has started to try and sell the bond. The certainty is increased by appointing a bond underwriter to purchase any part of the bond not sold to other investors.
Maturity	Currently up to around 30 years.	Can be up to 38 years.
Repayments	Flexible.	Fixed (unless index-linked).
	Repayments can be matched to project cashflows.	Repayments follow an annuity profile on fixed contracted dates.
Flexibility	High. As the project company is contracting with a single bank, or group of banks, the financing can be flexible. It is possible to negotiate changes to the project, possible early repayment of the loan or refinancing of the project. Also, if the project runs into difficulties the project company can negotiate with the funders to try and avoid the project collapsing.	Very little flexibility. Due to the arms length, and potentially disparate nature of the bond holders in relation to the project company it is very difficult to make alterations to the project. It is virtually impossible to make early repayments or refinance a project. There is also no room for negotiation with regards to the payment of interest and capital.
Receipt of funds	Staged. Banks will allow the project company to draw down the required funds as and when they are needed during the project. This means that the project company will only pay interest on the amount actually borrowed at a particular time.	Funds are received in one go at the time that the bond is sold to investors. The consequence of this is that interest will be paid on the total value of the funds from the beginning of the project. The project company needs to manage this and seek to minimise the costs by depositing the funds into an interest-bearing account.

Financing characteristic	Bank Financing	Bond Financing
Assessment of project risk	The banks will undertake this risk assessment themselves during their due diligence work. The banks will therefore be in the best position to assess the risk and to price the funds accordingly.	Bond investors are in a weaker position to assess the project themselves and rely on the bond arranger to make an assessment of the project risk for them. As the bond investors are not always in a good position to assess risk the bond issuer may insure the bond to make the project more attractive to investors.
Costs	Interest on the funds borrowed and a commitment fee for the available funds not yet drawn down.	Interest to the bond investors. An arrangement fee to the bond arranger. An insurance fee if the bond is insured.
Ongoing project scrutiny	Significant. The bank will monitor the project carefully to ensure that it is operating viably. If the project runs into difficulty the bank may have step-in rights to actually run the project.	Very little. The bond investors have little influence on the project once it is funded.
Optimum size	Few, if any, restrictions.	Approximately £100m - 400m - outside of this range there can be a dumbbell effect on the pricing of bond finance.
Opportunities for refinancing	There may well be opportunity for refinancing if the project risks become less than those assumed in the initial financing.	Refinancing is unlikely to be possible as the terms of the financing are generally fixed for the life of the bond.

Source: National Audit Office