THE ECONOMICS OF THE PRIVATE FINANCE INITIATIVE IN THE NHS

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Office of Health Economics
12 Whitehall London SW1A 2DY

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About the author
Jon Sussex is the Associate Director of the Office of Health Economics. His research into the economics of the UK National Health Service has focused on competition and contestability, the role of benchmarking and performance incentives, and the impact of expenditure controls. Prior to joining the Office of Health Economics in 1997 he worked as a management consultant in the NHS, including advising on Private Finance Initiative and other capital investment projects. Before that, in 1998-1999, he was H M Treasury's economic adviser on health and personal social services.

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EXECUTIVE SUMMARY

The Private Finance Initiative (PFI) is officially described as a means for providing skilled and efficient services to public sector organisations and hence to the communities they serve. But the PFI has also become the main source of capital funds for major investment projects in the National Health Service (NHS) and the rest of the UK public sector. Since 1997, 85% of the funds for major NHS capital projects has come from PFI sources.

There has been more scepticism about the PFI in the context of the NHS than in other sectors such as transport or prisons. Numerous criticisms have been made of PFI in the NHS, prompting a similar number of rebuttals. The question of whether or not the PFI provides better 'value for money' than equivalent investment financed directly by the Exchequer remains controversial.

In a conventional, Exchequer financed, NHS capital project, the design work is undertaken by external professional advisers consulting closely with the managers, clinicians and other senior staff of the NHS Trust instigating the project. Construction and equipping of buildings is put out to competitive tender by the NHS Trust to private firms. Provision of non-clinical services is similarly obtained by competitive tender, although the winning contractors are often groups of the NHS Trust's own employees rather than the competing private firms. The funds to pay for the initial capital investment are borrowed from the Exchequer.

With a PFI scheme the competitively bidding private consortia are required to offer to design, build and finance the project. They are also expected to provide the non-clinical services necessary to run and maintain the building once it is complete. Typically, bidding consortia have formed special purpose vehicle companies (SPVs) to design, build, finance and operate (DBFO) the proposed NHS hospital. The SPV then receives payments from the client NHS Trust at a pre-determined rate, spread over a long period of years, typically around 30.

The often heard argument over whether PFI 'permits' more investment than conventional Exchequer financing is a red herring. The taxpayer will eventually pay, either way. The public sector acquiring assets via the PFI is analogous to an individual choosing to buy their house with a 25-year mortgage rather than paying cash for it up-front.

They must still pay for the house, one way or the other. Thus, if we observe that more NHS investment is made once the PFI is under way than was occurring before, when direct Exchequer financing was the only option, then this is the result of a political decision to increase investment. The PFI does not allow increased NHS investment, the government does.

Exchequer financed investment in the NHS is subject to two separate cash limited budgets. First there has to be enough cash in the capital budget this year and in the expected budgets for the next few years to meet the capital costs up-front as they are incurred. But then there also has to be enough cash in future years' expected revenue budgets to meet the capital charge payments that will arise when the asset has been constructed, along with all other claims on those budgets.

In contrast, a PFI investment may proceed if future years' expected revenue budgets are estimated to suffice to cover the PFI charges, along with all other claims on those budgets. There is no separate budget cap applied to the capital value of PFI assets invested in.

It is entirely reasonable for the Treasury to seek to control the share of the nation's resources that is committed to providing public services such as health care. But this should apply equally whether an investment is funded from public or from private borrowing. The current practice of directly limiting the scale of Exchequer financed NHS investment but not privately financed NHS investment is distortive. It drives NHS bodies to select PFI financed investment regardless of whether it is more or less cost-effective than an Exchequer financed equivalent. Treating publicly and privately financed NHS investment equally means relying in both cases on the discipline provided by tight annual revenue budgets, from which PFI payments and NHS capital charges alike must be paid.

Given the government's current tests of fiscal prudence, there appear to be no macroeconomic reasons for preferring PFI to Exchequer financing, or for regarding one approach as any more affordable than the other. The choice between PFI and conventional funding of NHS investments should be based on microeconomic analysis and management judgement of the balance of cost and benefit in each case. In summary, compared with well-managed Exchequer financed procurement, the PFI:

- may or may not offer design improvements and lower construction costs;
- may or may not lead to more cost-effective support services;
- does not increase the realised value of surplus asset disposals;
- may involve higher costs of borrowing, even after accounting properly for risk; but
- will probably lead to more projects being completed on time; and
- will probably yield better maintained hospitals.

In aggregate, the claimed prospective net benefits of NHS PFI schemes relative to their public sector comparators appear to be small. For most or all of the NHS PFI schemes so far signed-off, the estimated net benefit would disappear if the discount rate used to calculate the net present value costs of the different options were to be reduced from 6% p.a. to a more appropriate, risk free, level of 4%. The message from these calculations is that there is no significant difference between the PFI and conventionally funded comparator options.

In the longer term the new NHS Concordat with the independent health care provider sector may start to break the taboo about private provision of NHS clinical services. If it does, it is unclear what the net result would be for the efficiency of publicly funded health care. But whatever the developments in respect of private provision of clinical services to the NHS, gains could be achieved by learning the lessons of PFI procurement and applying them in conventionally financed projects. In other words, let us try taking the 'F' out of 'PFI' and 'DBFO': dropping the requirement for private finance but keeping the private initiative. This takes private banks out of the equation but leaves the private architects, engineers, builders, equipment and service suppliers in.

The disciplines of PFI-based procurement have, arguably, forced the NHS to concentrate more on outcomes than inputs and to take risk management more seriously. This appears most likely to have benefits in improving the maintenance of assets and in minimising overruns on construction cost and time.

With conventionally financed hospitals, history shows that funds intended for maintenance can often be diverted to alternative purposes. Shabby hospitals, and worse, are the result. But if newly built PFI

hospitals can be guaranteed a better maintained lifetime by signing a long-term contract with a private company to provide that maintenance, why not do this with existing NHS hospitals too? Why leave the large majority of the country who do not have access to a new PFI financed hospital with under-maintained hospital buildings?

NHS managers need to be given a genuine opportunity to follow an Exchequer financed procurement route where it shows promise, without being pressurised and constrained to do otherwise. There is now sufficient experience of the PFI in the NHS for managers to be allowed to make an unfettered appraisal of conventional versus PFI options when planning capital investment. Tenders can be sought to design, build and operate hospitals on a 30-year basis with and without private sector provision of the initial capital investment funds as part of the package. In effect the public sector comparator appraised alongside the PFI option should be a DBO scheme. The best way of assuring value for money is then to make conventional financing a genuine option – and for whole schemes not just 'Phase 1s'. This requires that:

- the bias against Exchequer financed investment caused by the existence of a separate capped budget for Exchequer funded, but not PFI funded, capital expenditure in the NHS is removed. It must be made clear that funds are as readily available for worthwhile conventionally financed schemes as they are for PFI projects;
- the criteria by which capital schemes are approved or rejected by the UK health departments and the Treasury are made clear and are published. These criteria should be applied equally to conventional and PFI schemes, and the reasoning behind the approval or rejection decisions for individual schemes should be published;
- lower discount rate should be used for comparing equivalent conventionally and PFI financed options. I suggest a 4% real annual discount rate rather than the current 6% which is too high given that the costs of risks are already identified and added to the project's costs.

The debate about the PFI in the NHS has become simplistic and polarised. The reality is more complex. Applying to conventional procurement the lessons learnt from the PFI about concentrating on out-

comes and explicitly managing risks, including maintenance risks, and combining this with fair appraisal of conventional versus PFI procurement should give the best possible results. The PFI should not be banned from the NHS but neither should it be protected against competition from best practice in Exchequer financed investment.

1 INTRODUCTION

The Private Finance Initiative (PFI) is officially described as a means for providing skilled and efficient services to public sector organisations and hence to the communities they serve. But the PFI has also become the main source of capital funds for major investment projects in the NHS and the rest of the UK public sector. Since 1997, 85% of the funds for major NHS capital projects has come from PFI sources. Private provision of services to public bodies such as local authorities and National Health Service (NHS) hospitals long predated the advent of the PFI. What was new about the PFI was that it involved the private financing of capital assets of a type that had previously been publicly funded, and that it bundled together the provision of additional related services with these assets. A typical PFI contract for an NHS Trust would provide not only new hospital buildings, but also the range of services needed to operate those facilities: cleaning, laundry, catering, heat and light, maintenance, security and so on.

During a long teething process under the 1992-1997 Conservative government, and despite strenuous efforts by both the public and private sectors, not a single major PFI deal was signed in the NHS. However, since its election in May 1997 the Labour government has enthusiastically advanced PFI in all parts of the public sector. In the NHS the first major PFI deal was signed in July 1997 and successive waves of hospital PFI projects have followed, as well as a range of other NHS capital schemes including other health care facilities, information technology, incinerators, scanners, and so on.

The operation of the PFI in the NHS continues to be the subject of debate. It seems that there has been far more scepticism, even hostility, towards the PFI in the context of the NHS than in other sectors such as transport or prisons. Numerous criticisms have been made of PFI in the NHS and counter-arguments offered. The question of whether or not the PFI provides better 'value for money' than equivalent investment financed by Exchequer is controversial. This is partly due to the impossibility of constructing the counterfactual, i.e. of knowing what would have happened to costs and benefits if a conventional procurement route had been followed instead of a PFI scheme. But the controversy also arises because the sums of taxpayers'

money being committed to PFI schemes every year are large and are being tied up for long periods as contract terms are typically of the order of 30 years. One area of general agreement, however, is that the cost of borrowing a pound of capital to fund an NHS investment will be higher under the PFI than if borrowed directly from the Treasury. Where the controversy reignites is over the question of whether this is entirely due to project risks being recognised in the cost of private borrowing but not in Exchequer borrowing.

The purpose of this book is threefold. The first is to assess the costs and benefits of NHS PFI schemes relative to conventionally financed alternatives. An important part of this assessment centres on the relative costs of private and public borrowing for NHS capital investment. The second purpose is to draw out the lessons learned from the experience of the PFI so far, for improving the NHS's procurement and operation of buildings, plant and equipment. The third purpose is then to consider how far the provision of private finance is integral to achieving these benefits. Putting this another way: can the benefits of private sector involvement in designing, building and operating NHS facilities be achieved without incurring extra financing costs?

The experience of PFI schemes will therefore not only be compared with conventional procurement as historically practised. The lessons for procurement in general that the PFI has taught the NHS will also be considered. Applying these lessons so as to enhance the Exchequer financed approach to procurement might then yield an approach whose overall balance of costs and benefits is superior to the PFI.

PFI schemes can and do cover all types of NHS asset: land, buildings, plant and equipment including information and communications technology (ICT). The focus of this book, however, is on the construction and operation of large buildings, and the purchase and maintenance of associated land, plant and equipment, rather than on the purchase of ICT or other equipment on its own. Relative to hospital construction the latter type of scheme is generally small and involves much less of a service element so that PFI and Exchequer funded purchasing might be characterised as essentially alternative

ways of procuring fixed assets. This raises rather fewer cost-effectiveness issues than the more complex PFI projects.

The book is organised as follows. Chapter 2 provides the context. It describes the scale and role of capital in the NHS, capital expenditure trends and official policy, including the introduction of capital charges and other pressures to use capital assets efficiently. Chapter 3 places the PFI in this context and summarises the history of the initiative as it has applied to the NHS. The difficulties confronting research into the PFI are described in Chapter 4, particularly the ambiguity that exists about the true objectives of the policy. Chapter 5 then assesses the scope for PFI to yield net benefits when applied to the NHS.

Chapter 6 pays particular attention to whether there is a gap between the private and public sector costs of capital for NHS projects. It discusses different arguments about whether private sector capital should or should not be expected to cost more than public sector capital and reviews the available evidence. Chapter 7 discusses the evidence on whether PFI in the NHS is providing value for money overall, when all elements of design, construction, service provision and financing are taken together. It demonstrates how the apparently technical issues of the discount rate and quantification of risk may be biasing this assessment. Chapter 8 pulls the earlier arguments together and draws out policy implications. In conclusion this chapter sets out the possibility of pursuing a new, 'unbundled' approach in which the NHS retains the PFI's potential benefits in procuring services and capital assets without suffering its extra costs.

2 CAPITAL IN THE NHS

2.1 How important is capital to the NHS?

Health care provision is labour intensive, even in hospitals. Staff account for around 60% of total costs, and much of the rest is accounted for by medicines and other bought-in goods and services. The annual costs of capital to English NHS Trusts in 1998/99 – comprising interest on debt (£669 million), dividends on 'public dividend capital'[1] (£561 million) and depreciation charges (£998 million) – were equivalent to just 8.2% of their income (House of Commons, 2000a). But these figures understate the importance attached by the public and politicians to the provision of NHS buildings and equipment. Furthermore, the scale of the NHS means that the absolute figures of interest are very large. In England alone the tangible fixed assets held by NHS Trusts at the end of March 1999 (the latest published figures available) would have cost £72 billion to replace (Department of Health et al., 2000). Given the age of many NHS hospitals and their equipment however, the net book value of these assets after depreciation has been taken into account is much less than this: £22.5 billion (House of Commons, 2000a). The age and poor condition of many NHS assets is the subject of persistent public and political dissatisfaction.

The rate of capital investment in the NHS since its foundation in 1949 has been uneven. After remaining roughly constant both in real terms and as a share (around 3.5%) of total NHS expenditure until 1956, annual NHS capital investment then accelerated to reach a peak in 1973/74 of 10% of all NHS spending. The next few years saw major real terms cuts in capital spending, bottoming out in 1979/80 when capital investment was just 5.5% of total NHS spending (Webster, 1996, Appendix 3.3). Over the last 20 years, NHS capital expenditure has continued its bumpy ride: rising through the 1980s in real terms, levelling off in the early 1990s, then falling over the four years to 1998/99 before apparently turning once more onto a growth path. In 2000/01 capital spend, including the capital element of PFI deals, is equivalent to around 6.7% of total NHS expenditure (Department of Health, 2000b).

1 The specific meaning and purpose of 'public dividend capital' are explained in section 2.3 below.

All of these large, highly aggregated numbers are important but are not in themselves the focus of public attention. That concentrates rather on decisions at the margin: investment in new hospitals or, especially, closure of existing hospitals. The development of medical technology over time and the consequent reduced need for patients to spend time as hospital inpatients as part of their treatment means that decisions to invest in new or expanded hospitals invariably imply the simultaneous shrinkage or closure of an existing hospital or hospitals. Thus every decision to build is linked with a decision to close. The result is concentrated public attention.

Hence NHS capital investment has always been highly political. The PFI did not cause that, but it has added a further twist to the politicisation of NHS investment decisions by introducing a hint of profits being made from a service that many people feel should be exempt from commercial considerations. The next section describes how major NHS investment decisions are supposed to be taken according to current government guidance. The complexity of the process derives from the, already noted, political sensitivity of the decisions but, at the same time, it also increases that sensitivity by leaving some of the key assumptions upon which officials and ministers base their decisions hidden from the public gaze. This creates suspicion and may be one factor provoking hostility towards the PFI in health care.

2.2 How investment and disinvestment decisions are made

NHS providers of health care services are required to recover in the prices they charge to the local commissioners of services the cost of the capital they use. Those buyers of health services are funded by the Treasury to a level which in aggregate across the country as a whole should enable them to afford the capital used in providing services. (Section 2.3 will describe how the NHS capital charging system works.) These funds together with the funds that health service buyers receive to pay for all the other costs (staff, materials, etc.) are distributed according to a formula that is intended to ensure geographical equity in NHS resourcing. (For a description and explanation of

the resource allocation formula see Oliver, 1999). The capital portion within these funds is intended to cover: (1) the costs of borrowing capital (i.e. payment back to the Treasury of interest on debt and dividends on public dividend capital); and (2) on a continuing basis the maintenance, repair and minor development of the existing, depreciating, capital stock short of one-off multi-million pound investment projects in excess of the internally generated funds available. The second element is referred to as 'block capital'.

In addition to these formula-distributed resources there is also a separate tranche of discretionary Treasury-provided capital funds available for loan to NHS providers wishing to make major investments. Allocation of those funds is at the discretion of the relevant national (English, Northern Irish, Scottish or Welsh) health department and the UK Treasury. This discretionary capital funding, plus block capital, plus receipts from sales of surplus assets, plus any capital element contained within PFI deals (see below), together constitute the amount of capital investment in the NHS in any year (NHS Executive, 1996a).

Approval for allocations of discretionary Treasury capital funds and for PFI projects is combined into a single process. All NHS organisations proposing major capital investments are required to consider doing so via a PFI scheme rather than with Exchequer financing. A proposal for a major capital investment project has to come from a provider (NHS Trust) and have the explicit support of the main buyers who obtain health care services from it (primary care groups/trusts and health authorities in England; local health groups and health authorities[2] in Wales; health boards in Scotland; health and social services boards in Northern Ireland). The formal process that a scheme involving a capital cost of over £25 million is required to go through is as follows (NHS Executive, 1999). This process strictly applies only in England, but an analogous procedure is followed in the other countries of the UK, with the exception that the functions of the English regional offices are part of the respective country's health department's role in Northern Ireland, Scotland and Wales:

2 The National Assembly for Wales is planning to abolish health authorities by April 2003 and so leave all commissioning in Wales to local health groups (National Assembly for Wales, 2001).

1. The regional offices of the NHS Executive invite bids from NHS Trusts, supported by their main buyers, in the form of a 'Strategic Outline Case'. These are short documents intended to establish that there is a health service need for an investment.
2. The favoured Cases are then submitted to the NHS Capital Prioritisation Advisory Group at the NHS Executive nationally. This Group recommends to the overall NHS Executive Board and subsequently to ministers which schemes should be allowed to proceed to the next stage.
3. An approved Strategic Outline Case has then to be developed into an 'Outline Business Case'. This sets out an appraisal of the investment options for achieving the health service need identified in the Strategic Outline Case, including PFI and conventionally-financed alternatives and identifies the preferred option. This is the point at which two big decisions are made: firstly whether to proceed with the option at all and secondly, if so, whether it is to be via the PFI or conventionally financed. The decision whether to approve any option and if so which, including whether conventionally or PFI financed, rests with the NHS Executive regional offices, but not in isolation. This decision is taken in the knowledge that the subsequent Full Business Case (see step 5) will have to be approved centrally.
4. A preferred provider of the capital scheme (if conventionally financed) or PFI scheme (including provision of non-clinical services for the next 30 years or so – see Chapter 3 below) is then selected via competitive tender.
5. Once the preferred provider has been identified the revised costings and proposed contract details are written up and the Outline Business Case is updated. The resulting 'Full Business Case' is then submitted for approval. Schemes with capital costs over £50 million require ministerial approval at the Department of Health and official approval at the Treasury. Schemes between £25 million and £50 million capital cost require official, but not ministerial, approval at the Department of Health and the Treasury.

   This lengthy bureaucratic and political approval process reflects the

public sensitivity of major NHS investments[3]. The current process has evolved over the last 20 years and stems from two overriding pressures: the desire to contain NHS expenditure in total; and the need for some planning of what is built where, given the uneven distribution and quality of NHS assets around the country and the limited NHS budget. The result is that decisions whether to undertake a project and how to finance it are subject to a lot of discussion and negotiation, often spread over years, within NHS Trusts, primary care groups/trusts, health authorities, regional offices, the central NHS Executive, the Department of Health and the Treasury. This is not a purely objective process.

The investment approval process is only one method by which more efficient use of NHS assets is supposed to be encouraged. The NHS capital charging system has the same end in view.

2.3 NHS capital charges

The main features of the current system of NHS capital charging were introduced from April 1991 by the NHS and Community Care Act 1990. The purpose of the new system of capital charging was described in a government working paper as 'increased awareness by health service managers of the costs of capital coupled with incentives to use capital efficiently' (Department of Health, 1989, para. 1.1).

The introduction of capital charges was, however, not so much a product of the one-year 1988/89 review of the NHS by the Thatcher

3 Schemes with capital costs under £25 million go through a slightly shortened process. No 'Strategic Outline Case' is required and such schemes are not considered by the NHS Capital Prioritisation Advisory Group. They will not require ministerial or Treasury approval. They still have to go through the 'Outline Business Case' and 'Full Business Case' processes. For schemes up to £10 million capital cost the approval decision rests in most cases with the regional office of the NHS Executive. The central NHS Executive is supposed to review a sample of such cases, however, to keep a check that procedures are being followed and standards are being applied uniformly around the country. Schemes costing between £10 million and £25 million require approval by the central NHS Executive and HM Treasury. ICT investments have a separate scale of thresholds for determining whose approval is required, based on the sum of all payments that will be made over the whole life of the project and not just on the capital cost element. The net effect of these thresholds is the same, however: only the very largest projects require central approval.

government, as the eventual outcome of a steady build-up of pressure since the 1983 Ceri Davies Report (Department of Health and Social Security, 1983)[4]. Paragraph 5.22 of that report states the core of the issue:

> 'Throughout this Enquiry we have notice (sic) the somewhat casual attitude adopted by many authorities to the handling of property matters in the NHS. We believe that this attitude derives largely from the fact that property in the NHS is a 'free good'. We are convinced that, unless corrected, it will frustrate attempts to achieve greater effectiveness in estate management.'

Capital was a 'free good' in the sense that any NHS body could bid for capital investment in their part of the NHS and if successful the funds for procuring the assets would come straight from central sources at no cost to them. Once the assets existed, of course, the NHS body would thereafter need to find the funds from their own budget to staff, operate and maintain them. This appears sometimes to have come as a bit of a shock.

Ceri Davies and his colleagues concluded that 'the adoption of a positive NHS property valuation system is essential as being the only realistic way of bringing home to both planners and users the cost of accommodation occupied' (para. 5.25). Their suggestion for achieving this was to calculate a 'notional rent' for all properties occupied by an NHS body, based on the rateable value[5] of that property – information that already existed. The notional rent would not be an actual charge for accommodation but would be calculated simply as a performance indicator. The reason for this rather weak proposal appears to have been an overwhelming desire to minimise administrative costs. The report did however also suggest that further, more detailed, consideration should be given to real, rather than notional, charges for capital and to the introduction of balance sheets into NHS accounting.

When capital charges were eventually introduced into the NHS in April 1991, the chosen system was in keeping with the fundamental

4 The Ceri Davies Report was itself part of a continuing history of concern about the selection and management of NHS capital projects.

5 The 'rates' referred to here are local property taxes.

nature of the internal market reforms introduced at the same time. The caution of Ceri Davies and his enquiry team was left behind. Instead, NHS bodies were to be funded for, and would then pay, real capital charges. They would also have balance sheets and depreciation charges. All NHS Trusts had their assets valued on a depreciated replacement cost basis and were given a matching 'originating capital debt' owed to the Exchequer[6]. These liabilities took the form (generally split 50/50) of interest bearing debt and 'public dividend capital' to the same total value as their asset base. Subsequent investment would (it was then expected) be financed by more borrowing from the Exchequer, largely via debt but also possibly via further issue of public dividend capital. An annual charge was made for depreciation of assets, calculated on a straight line basis. Interest and dividend payments had to be made annually to the Treasury on, respectively, the debt and public dividend capital held.

A particular twist to the capital charging arrangements imposed on the NHS, however, was that as assets depreciated or were revalued periodically, the sum of the debt and public dividend capital held by the body had to be adjusted to match the revised total value of assets. Furthermore a real 6% return had to be earned on the average value of assets held each year and paid back to the Treasury in the form of interest and dividends. Thus, in effect, every one pound increase in the value of an NHS organisation's assets, however caused, would require a six pence charge to be paid annually to the Treasury. Conversely, every one pound fall would mean that a six pence lower capital charge had to be paid.

This peculiar structure of NHS capital charges creates an unduly strong disincentive to NHS bodies to invest in new assets. This follows because NHS capital charges start high and reduce progressively over time rather than remaining constant over an asset's life. In other words, NHS capital charges are front-end loaded. There is no obvious economic rationale for this structure. If an asset delivers an approximately constant stream of services throughout its life, it makes no sense to allocate a disproportionately high cost to the early years of its life and a low cost to the later. This becomes painfully obvious when it is con-

6 A helpful, and mercifully brief, description of the capital charging arrangements is given in chapter 2 of *Review of the Trust Financial Regime* (NHS Executive, 1996b).

sidered that, other things being equal, the revenues that an NHS Trust earns from its new asset are unlikely to be higher in real terms in the first year than in the second or the thirtieth. NHS budget constraints are tight. Real terms increases in budgets should, ideally, only be given for increased volume, quality or range of services, not because worn-out assets have been replaced. A more logical approach would be to charge a constant, in real terms, annuity or rental throughout an asset's life unless there is some significant change in the value of the services it provides.

Figure 2.1 illustrates the difference between the NHS capital charges on a new £100m hospital and an annuity payment that would achieve the same real return on the capital. For simplicity the hospital is treated in this illustration as a single asset with a 30-year life. In practice it would be a bundle of a wide range of assets with different lives from five to 60 years. NHS charges require a Trust to pay to the Treasury dividends equal to a real return of 6% on the average depreciated replacement cost of the Trust's assets each year. This amount is highest when the asset is new and undepreciated but then declines each year as depreciation eats away at the remaining book value of the asset, reaching zero at the end of the asset's book life when it is fully depreciated. The depreciation charge in this simple example is a constant one-thirtieth of the initial asset value each year of its presumed 30-year life.

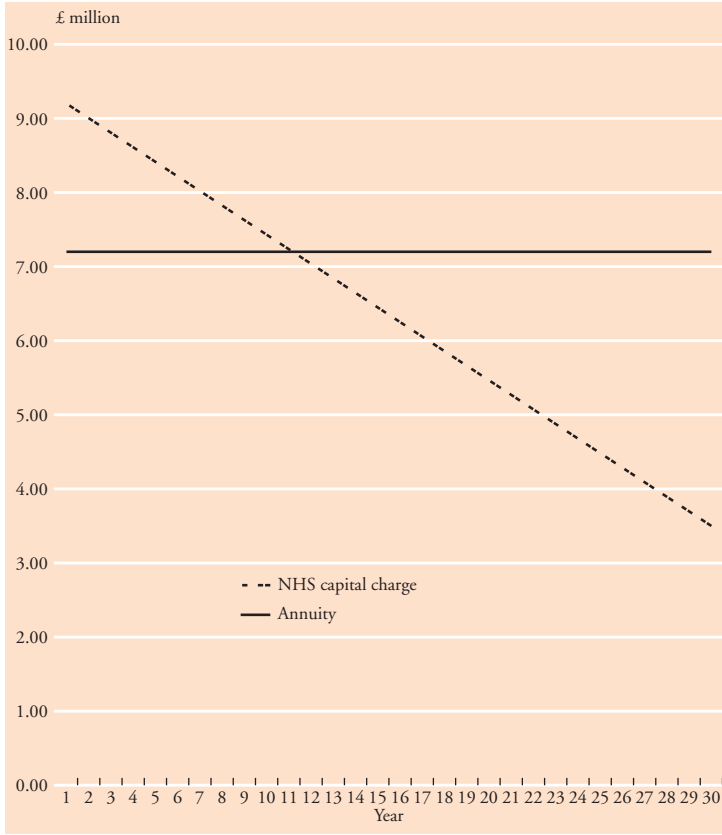
In the first year the total NHS capital charge on the £100 million asset is £9.23 million, comprising a £3.33 million depreciation charge (=100/30) and a £5.90 million dividend (= 6% of the average assets held over the year = 0.06 x (100+(100-3.33)) / 2). A constant annuity paid for 30 years that would give the Treasury the same overall return would be £7.16 million. This is £2.07 million less than the total NHS capital charge for an identical asset in the first year of the asset's operational life. The total NHS capital charge, although declining year by year, would be higher than an equivalent annuity in each of the first 11 years. From year 12 onwards, however, the annuity payment would exceed the NHS capital charge and by an ever larger amount each year. By year 30 the NHS capital charge would be just £3.43 million compared with the constant annuity of £7.16 million.

While charging for the use of capital is a sound economic principle, the chosen form of NHS capital charges has produced three

sources of potential inefficiency:

1. An unduly strong disincentive to invest at all, as a result of front-end loading. Replacing an asset in the final year of its life (capital charge equal to one year's depreciation and almost no dividend) with an equivalent replacement asset (first year capital charge equal to one year's depreciation plus 6% of the total capital cost of the asset to be paid to the Treasury as a dividend) would require an increase in expenditure just to maintain the same level and range of activity as before.

Figure 2.1 **NHS capital charges are front-end loaded**



2. An incentive for refurbishment rather than new build. Ten million pounds spent on a new building will attract a £600,000 dividend charge in the first year[7] plus the annual depreciation charge. Ten million pounds spent on refurbishing an existing building might lead to rather less of a capital charge, however. This is because the initial book value of a new building equals the actual cost of building it. Where an existing building is refurbished rather than replaced, however, the consequent upward revaluation by the District Valuer of the building post-refurbishment may be by less than the amount spent on it. If so, capital charges will be commensurately lower than for an equivalent amount of new build.
3. A distortion of the comparison between conventional and PFI financing for acquisition of the same assets. As will be explained in Chapter 3, in PFI deals the capital cost is effectively spread as a constant annuity over the life of the assets provided. Thus, as illustrated in Figure 2.1, for the first few years after construction a PFI procured asset should entail a lower cash charge on an NHS Trust than a conventionally procured one with the same asset life. Given tight annual cash budgets, this would make the PFI option very attractive to an NHS Trust relative to Exchequer financing. In later years the position reverses, as Figure 2.1 makes clear: the annuity charge is eventually greater than the NHS capital charge would be. But the budget problem that will bring is several years away. That leaves plenty of time for lobbying the health authority and the Department of Health to 'fix' the books or provide extra funding, in time honoured fashion. In any case the NHS managers in place now and worrying about meeting this year's and next year's budgets can reasonably expect to have moved on by the time that becomes necessary. In practice, however, this potential distortion has often been submerged beneath another that the PFI has brought with it, namely the shortening of assumed asset lives when the assets are privately financed. The implications of this are explained in Chapter 3.

7 The precise dividend will actually be 0.06x((10,000,000+9,666,667)/2) = £590,000 as the 6% is applied to the average asset value over the year and the depreciated value of the 30-year-life asset at the end of the year is £9,666,667 (= 29 thirtieths of the original, undepreciated asset value).

3 THE PRIVATE FINANCE INITIATIVE

3.1 Origins and nature

Before 1992, direct financing by the private sector of capital investment in the NHS was negligible. The Treasury's rules governing the appraisal of all public sector investments made it difficult to demonstrate value for money where so-called 'unconventional finance' was proposed. The fact that Exchequer funds might not be available for a more cost effective conventionally financed option was not deemed relevant by the Treasury. Private finance should not, the Treasury argued, be used as a way of getting around public expenditure controls.

Government policy on this matter changed fundamentally in 1992, however. In his 12 November Autumn Statement, Chancellor of the Exchequer Norman Lamont announced a relaxation of the Treasury's rules on private financing of public sector investments. What started merely as government encouragement of the use of private finance for public investment developed, in November 1994, into a requirement that PFI options be tested fully for any proposed public sector capital scheme. All projects would still be subject to formal appraisal and approval by the relevant government agencies and would have to demonstrate value for money. Only if private finance were not available at reasonable cost might Exchequer funds be forthcoming. If Exchequer funds were then not available the project could not proceed.

In a conventionally (i.e. Exchequer) financed NHS capital project, such as building and equipping a new hospital wing, the design of the required facility is undertaken by external professional advisers working closely and in detail with the managers, clinicians and other senior staff of the NHS Trust instigating the project. This external advice is hired commercially via competitive tendering from the private sector. Construction of buildings is put out to competitive tender by the NHS Trust to private firms. Equipment is procured in a similar way. The funds to pay the chosen contractor/supplier are borrowed from the Exchequer. Until 1999/2000 NHS Trusts' capital was partly financed by interest-bearing Treasury loans and partly by 'public dividend capital' owned by the Treasury. The NHS Trust pays the interest rate on Treasury loans prevailing at the time the funds are bor-

rowed. However, whatever the nominal level of this interest rate, NHS Trusts are required to earn a real return on their total assets of 6% per annum, as explained in section 2.3. This was achieved by adjusting the public dividend paid to the Treasury each year so that the sum of interest and dividends paid by a Trust equated approximately to a 6% real rate of return on the total depreciated replacement cost of its assets[8]. During 1999/2000 the system was simplified by replacing all Treasury debt with public dividend capital. Thus only public dividend capital dividends are now paid. The obligation to earn a 6% real rate of return remains, although it is now expressed as a 'capital cost absorption target' (NHS Executive, 2000).

With a PFI scheme the competitively bidding private consortia are required to offer to design, build and finance the project. They are also expected to provide the non-clinical services necessary to run and maintain the building once it is complete. Typically, bidding consortia have formed special purpose vehicle companies (SPVs) to build and operate the proposed NHS hospital. The SPV then receives payments from the client NHS Trust at a pre-determined rate, spread over a long period of years, typically around 30. Variations on this standard DBFO (design, build, finance and operate) approach are possible, for example by excluding the operating element, but DBFO has been the predominant model hitherto.

The view of the 1992-1997 Conservative government was that the PFI would improve value for money in the provision of public services through:

> 'better allocation of risk; better incentives to perform; close integration of service needs with design and construction; a clearer focus of responsibilities of public and private sectors which more clearly reflects the strengths of each; a continuing commercial incentive for efficiency throughout the design, asset creation and operation of the project; and more potential for efficiencies.' (Private Finance Panel, 1995)

8 This principle is applied in a broad brush way. In any financial year a Trust's interest and public dividend payments may sum to greater or less than a 6% return on its total net assets depending on its income and expenditure position. Under-payments in one year are supposed to be made up in subsequent years, however.

The House of Commons Treasury Committee in 1996, while still generally supportive of the PFI, was notably more measured than this. It offered the view that 'many of the assumed benefits of PFI would appear to be available to better managed and controlled conventional procurement' (para. 33).

3.2 Barriers

Despite the Conservative government's clear and frequently re-affirmed commitment to PFI as the source of major public investments, not a single major NHS PFI deal had been signed by May 1997. There were many factors contributing to this delay. Two of the most important were: unfamiliarity in the NHS with the need for detailed risk assessment combined with an initially unrealistic optimism about the scope for transferring risk to private sector consortia; and secondly the risk-aversity of the banks financing the PFI consortia, combined with their unfamiliarity with the business of operating NHS hospitals. The first of these problems could be resolved with time and painfully gained experience. Resolution of the second required legislation, twice:

- The National Health Service (Residual Liabilities) Act 1996 removed the possibility of PFI consortia being left with assets and/or contracts that had become worthless should the NHS Trust they serve be wound up. The Secretary of State, or rather the taxpayer, would pick up the bill;
- The NHS (Private Finance) Act 1997 made it explicit that NHS Trusts have the power 'to enter into externally financed development agreements'. In other words, NHS Trusts would not be ultra vires in signing PFI contracts, so there could be no risk of non-payment to the PFI consortium of the agreed charges. The first major NHS contract was signed in late July 1997, a fortnight after this Act came into force. (I shall return to the issues concerning the risks (not) taken on by PFI consortia in Chapter 6 below).

A third barrier in some circumstances was the so-called PFI 'affordability gap' that can result from the requirement of the private sector consortia that the capital they were to invest in long-lived assets such

as buildings had to be repaid by the NHS Trust over no more than 30 or so years. By contrast, NHS buildings are straight-line depreciated over an assumed life of 60 years, unless some particular characteristic of the building requires a shorter life. The shorter the repayment 'life', the higher the annual payments required. The much shorter repayment period required by the private sector meant that their charges for providing buildings might be higher than NHS capital charges for an equivalent but Exchequer financed building, even in the first few years of the building's life and despite the front-end loading of NHS capital charges (described in section 2.3 and illustrated in Figure 2.1). Whether the problem arises in practice depends on the return on cap-

Box 3.1 **PFI 'affordability gap'**

Example: Hospital buildings worth £60 million to be built.

NHS: Depreciation over 60 years implies £1 million per year depreciation charge.
NHS public sector dividend charge = 6% of remaining asset value after depreciation = £3.6 million in year 1.
Total NHS charge in year 1 = 1 + 3.6 = £4.6 million.

PFI (1): PFI charges require, in effect, depreciation over 30 years and combine this with the return on capital in a constant annuity for each of the next 30 years. Thus if the private sector's required return on capital were 8% p.a., say, then:
PFI annuity charge in year 1 and each year to year 30 = £5.1 million.
Therefore the 'affordability gap' = 5.1 – 4.6 = £0.5 million in year 1.
This is the amount by which the PFI charge would exceed NHS capital charges for the same buildings in the first year of their use.

PFI (2): However, if the private sector required only a 6% p.a. return on capital, then:
PFI annuity charge in year 1 and each year to year 30 = £4.2 million.
In this case there would be no 'affordability gap' in year 1 as the private sector charge would be lower than the year 1 NHS capital charges.

The existence and scale of the initial PFI 'affordability gap' depends on the private sector's required rate of return. Chapter 6 discusses this in detail.

ital that the private sector requires. The simplified example in Box 3.1 illustrates this.

Where the 'affordability gap' problem has arisen, it has in practice been overcome by a variety of financial manoeuvres within the NHS so as not to allow it to hold up PFI schemes, but negotiating them adds delay. A favoured approach has been a 'smoothing mechanism' whereby NHS Trusts signing PFI deals are paid funds from the overall NHS capital budget to the extent necessary to close the 'affordability gap' each year until the end of the PFI contract period. (See Gaffney and Pollock, 1997, pp. 12-15, for a detailed discussion of the smoothing mechanism). In principle the smoothing mechanism payments are a loan to be repaid to the Exchequer by the NHS Trust between the end of the PFI contract (around year 30) and the end of the 60-year book life of the buildings.

The weakness in this attempt to get around the difficulties caused by private sector unwillingness to invest for periods as long as 60 years is that it is unclear whether the loans will indeed be repaid in the supposed fashion so far into the future. An alternative to the smoothing mechanism would be to adjust the NHS capital charges to require buildings to be depreciated over 30 years too. This would require an apparent increase in NHS Trusts' revenue budgets to meet the higher capital charges that would result. But it would ensure that all Trusts were treated equally rather than just those Trusts with PFI schemes receiving long-term loans which they may or may not eventually be required to repay in 30 and more years time. There would, of course, be no actual increase in the quantity of taxpayers' funds committed to the NHS as a result of such a change in the capital charging rules. The increased Trust budgets would be exactly matched by increased Trust payments of capital charges back to the Treasury: money out would equal money back in.

3.3 PFI ascendant

In May 1997, the incoming Labour government took up the PFI with enthusiasm, for all areas of the public sector including health care. The new government described its aims for PFI in words indistinguishable

from those of its Conservative predecessor. Thus the new Chancellor of the Exchequer Gordon Brown stated in November 1997:

> 'Through the Private Finance Initiative, the private sector is able to bring a wide range of managerial, commercial and creative skills to the provision of public services, offering potentially huge benefits for the Government.' (Treasury Taskforce Private Finance, 1997)

No mention was made in this or other official statements of the investment capital that the private sector also contributes, along with its skills, when it contracts to provide a PFI scheme for the public sector. This contrasts starkly with the views of NHS managers seeking PFI-funded capital investments in their Trusts. They put great stress on the PFI's ability to bring them large capital sums for replacing or substantially rebuilding their hospitals on a scale that would simply not be available from the Exchequer.

This might be interpreted as simply the outcome intended by ministers and civil servants, keen to ensure uptake of the policy, telling NHS managers that PFI was 'the only show in town' for major capital investments. However, such pressure was probably superfluous given the NHS's many years experience of conventional financing of capital investment, long predating the change of government policy to promoting private finance. With few exceptions (at high profile teaching hospitals such as the Chelsea and Westminster), even if major hospital construction schemes were approved in principle in their entirety they were then broken up into two or more discrete phases over a long period of years. Furthermore, funding was usually only made available for one phase at a time. Many hospitals have their 'phase 1' buildings but rather fewer have 'phase 2' or subsequent blocks. Those that do had to wait many years for them[9]. Somehow the funding for later phas-

9 Webster (1998) offers the following example: 'Swindon typifies the fate of district-general-hospital projects. The successful early start with the first and second phases …. was completed by 1968; the final phase …. was due for completion in the early 1970s, but this project was repeatedly delayed, and, despite confident predictions of completion by 1978, site preparations were delayed until 1990. Swindon then became a victim of the collapse of the government's capital programme.' (p123) Swindon's hospital is now being entirely rebuilt as a PFI scheme.

es would be delayed and diverted to other priorities elsewhere. That way, more hospitals received some new buildings and equipment out of the capital budget than would otherwise have been the case, but hardly any of them acquired all of the new build that had been officially approved.

The current government has officially relaxed its predecessor's requirement of PFI or nothing for NHS and other public sector schemes. Exchequer finance is stated as being an option once again. However, the criteria for determining when public funds might be made available have not been made explicit and the PFI approach is still promoted as the government's preferred route for NHS investment. Furthermore, the government's continuation of the practice of setting separate cash-limited capital and 'revenue' (i.e. operating cost) budgets for funds provided to the NHS by the Exchequer deters attempts to seek public finance for capital expenditure. The NHS in a region has a capped annual revenue budget to spend on its operating costs, including NHS capital charges and charges paid to PFI consortia, and also a capped annual capital budget for what it may spend on conventionally financed capital investments. That makes it hard for NHS bodies to choose a conventionally financed investment requiring, say, £10 million from this year's capital budget to pay for the asset upfront when it would be possible to have a PFI funded investment which will take nothing from the capital budget. (Both options have implications for the revenue budget: the conventionally financed option would bring NHS depreciation and capital charges, and the PFI option would have the PFI consortium's charges, to be paid from it.)

The PFI currently provides more than 85% of capital finance for major new NHS investments. Table 3.1 shows that over the UK as a whole, by the end of 2000, 23 major NHS PFI contracts had been signed, all of them since the arrival of the new Labour government in May 1997. They have a combined capital value of around £2.2 billion. This figure is inevitably an estimate as the private consortium in each case receives annual payments over the life of the PFI contract, which combine financing and repayment of the initial capital cost with fees for the provision of a wide range of non-clinical services. The capital cost element is not separately identified. The average cap-

Table 3.1 **Capital values* of major** PFI schemes signed May 1997-December 2000**

Scheme	£ million
Baglan Moor Hospital, Neath	66
Barnet Wellhouse Hospital	54
Bromley Hospital	118
Calderdale Hospital	65
Carlisle Hospital	65
Dartford and Gravesham Hospital	94
Greenwich Hospital	93
Hairmyres Hospital, Lanarkshire	67
Hereford Hospital	64
King's College Hospital, London	64
Law Hospital, Lanarkshire	100
Leeds Community NHS Trust	47
Norfolk and Norwich Hospital	158
North Durham Hospital	61
Royal Infirmary of Edinburgh	180
South Buckinghamshire	45
South Durham Hospital	41
South Tees Hospital	122
St George's Hospital, South London	49
Swindon Hospital	96
University College London Hospital	422
Worcester Royal Infirmary	87
Wythenshawe Hospital, South Manchester***	66
TOTAL PFI	**2,224**

Notes: *All PFI figures are necessarily estimates of the capital costs underlying the total contract payments.
**Schemes with a capital value of £25 million or more. The PFI is also used to fund smaller capital schemes but is less significant there than Exchequer finance.
***The total capital value of this scheme is £113 million; the balance is funded by the Exchequer (see Table 3.2).

Sources: Department of Health (2000b); Treasury Taskforce Private Finance (2000a); *Health Service Journal* 18 May 2000, p.6; Department of Health Press Release 2000/0425 of 13 July 2000.

ital value of these NHS PFI schemes is £97 million, or £82 million if the exceptionally costly £422 million University College London Hospital is excluded from the calculation. As at the end of December 2000, about £2 billion worth of other major NHS PFI schemes had also been approved by the government to proceed but had not yet reached financial sign-off between the NHS Trust and the chosen PFI consortium.

Over the same period, six major Exchequer financed schemes were approved, with a total capital value of £318 million (Table 3.2), implying an average size of £53 million. Owing to the different procurement processes for Exchequer and PFI financed projects, this figure of £318 million refers to the estimated capital costs of schemes for which the construction work has been put out to tender. The £2,224 million PFI figure refers to the estimated capital element of the total contracted costs of financially signed-off projects. For smaller schemes, the Exchequer remains the principal source of finance. A large amount of Exchequer funded capital expenditure still goes on in the NHS: an estimated £1,528 million in England in the financial year

Table 3.2 **Capital values of major* Exchequer financed schemes approved May 1997-December 2000**

Scheme	£ million
Causeway Hospital, Northern Ireland	55
Glasgow Royal Infirmary	52
Guy's & St Thomas's Hospitals, London	50
Royal Berkshire & Battle Hospital, Reading	74
Western General Hospital, Edinburgh	40
Wythenshawe Hospital, South Manchester**	47
TOTAL EXCHEQUER FINANCED	**318**

Notes: *Schemes with a capital value of £25 million or more.
**The total capital value of this scheme is £113 million, of which £66 million is PFI financed (see Table 3.1).

Sources: Department of Health (2000b); Northern Ireland Information Service press release 13 October 1998; Scottish Office News Releases 0692/98 and 2180/98.

1999/2000, including reinvested receipts from sales of surplus NHS assets. Apart from a few large schemes such as those in Table 3.2, most of the Exchequer capital is spread across a great number of relatively small-scale investments (Department of Health, 2000b).

The growing importance of PFI finance for NHS capital projects is illustrated in Table 3.3. It shows that in the period 2000/01-2003/04 the PFI is planned to contribute around one quarter of total NHS capital finance for hospital and community health services in

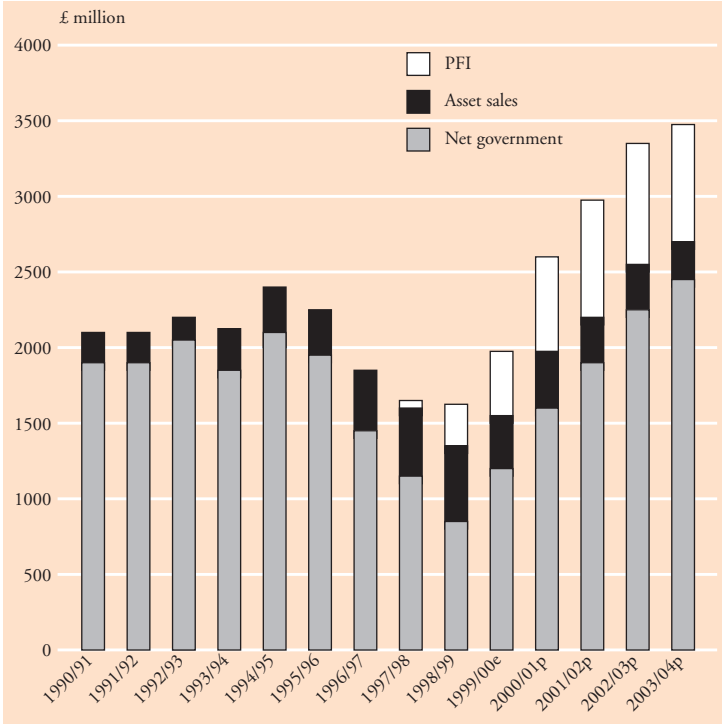
Table 3.3 **Sources of funds for NHS capital investment, hospital and community health services, England, 1990/91-2003/04**

£ million (money of the day)	*Total*	Government spending	Receipts from NHS assets sales	PFI*
1990/91	*1,576*	1,397	179	0
1991/92	*1,659*	1,489	169	0
1992/93	*1,815*	1,700	115	0
1993/94	*1,783*	1,570	213	0
1994/95	*2,048*	1,840	208	0
1995/96	*1,996*	1,714	282	0
1996/97	*1,711*	1,318	393	0
1997/98	*1,569*	1,068	446	55
1998/99	*1,596*	786	500	310
1999/00 estimate	*1,928*	1,155	373	400
2000/01 plan	*2,615*	1,620	363	632
2001/02 plan	*3,056*	1,917	351	788
2002/03 plan	*3,483*	2,402	270	811
2003/04 plan	*3,741*	2,639	270	832

Note: *All PFI figures are necessarily estimates of the capital costs underlying the total contract payments. Furthermore, PFI figures for 1997/98 to 1999/2000 are the Department of Health's estimates as made part way during the year in question. The Department of Health has not so far provided revisions to these preliminary estimates in the light of outturn. Later than expected closing of deals and hence commencement of work would mean that these historic figures were over-estimates of the capital expenditure actually undertaken by PFI consortia in the years in question.

Source: Department of Health (1997, 1998, 1999, 2000b,e).

Figure 3.1 **Trends in real* NHS capital investment by source of funds, hospital and community health services, England, 1990/91-2003/04**



Notes: * Expressed in estimated 2000/01 price terms using the GDP deflator at market prices (values from 2000 onwards based on HM Treasury forecasts in: Treasury, 2000).
e = estimated outturn.
p = planned expenditure.

Source: Table 3.3.

England, up from nothing in 1996/97. An average level of around £700 million per year of PFI capital investment in the English NHS is built into the NHS Plan for the ten years to 2010 (Department of

Health, 2000b, para. 4.9). Thus, even in the longer term, the government still expects to finance approximately three quarters of total NHS capital investments directly from the Exchequer, or from sales of surplus NHS assets.

Converting the money-of-the-day sums in Table 3.3 into constant 2000/01 price terms, brings out clear changes in the scale of the resources committed to NHS capital investment over the 1990s (Figure 3.1). After holding reasonably steady for the first five years of the decade, at between £2.1 billion and £2.4 billion (in 2000/01 price terms) each year, English NHS capital expenditure then dropped alarmingly over the next three years, reaching a low point in 1998/99 at £1.7 billion. This reflects both a planned cut in government funding and the unplanned, lengthy delay in major PFI deals being concluded that I have already referred to. High levels of receipts from NHS asset disposals were inadequate to offset this. Since July 1997, however, when the logjam of PFI schemes broke, the amount of NHS capital investment has started to recover and, boosted by major increases in Exchequer funded expenditure as well as PFI, is planned to grow rapidly to £3.5 billion (in 2000/01 price terms) by 2003/04.

4 AMBIGUITY AND DISSONANCE

Attempting an assessment of the PFI as it operates in the NHS presents major difficulties. At source these difficulties stem from the fact that despite a steady flow of statements about the PFI since 1992 by a variety of government ministers, both Labour and Conservative, by their civil servants and other advisers, there remains ambiguity about the objectives of the policy. The stated importance attributed to the PFI as an aid to macroeconomic management ebbs and flows. So too does the stress given in official pronouncements to the accounting treatment of PFI expenditures by the public sector. Sometimes the ability of PFI to reduce up-front capital expenditures (by spreading them over 30 or so years) is held out as a neat way of increasing NHS investment without increasing NHS outlays in the next year or three; sometimes not.

The macroeconomic management and accounting treatment arguments are bound together and have something of the character of an over-elaborate and ultimately disappointing conjuring trick. In the early 1990s the PFI may have been seen by the then government as a convenient way of appearing to reduce its borrowing without cutting public investment. In the event, investment in the NHS did fall considerably because of problems with introducing the PFI, as shown above. Creating the appearance of no additional government borrowing even when investment in assets to supply public services paid for from taxes is taking place, requires that public assets financed via the PFI, such as NHS hospitals, do not appear on the public sector's balance sheet. To achieve this illusion, the assets must instead be recorded on the balance sheets of private sector businesses. The Accounting Standards Board has made this rather difficult for the government to achieve. Much ingenuity and verbal dexterity has been expended by civil servants and ministers in trying to reconcile the accounting guidance (Accounting Standards Board, 1998) with the government's wishes. A summary of the accounting story is presented in Appendix A.

Any relevance the macroeconomic management point may have had in the first half of the 1990s, appears to have greatly diminished by 2000. Writing for the Institute for Public Policy Research, a think-tank generally sympathetic to the policies of the Labour government, Robinson (2000) demonstrated that the scale of the PFI is too small

relative to total government borrowing and expenditure to have any noticeable effect at the macroeconomic level. In summary: 'the Treasury's new fiscal framework is entirely compatible with not having the PFI at all – the initiative is not necessary to secure prudent public finances' (Robinson, 2000; p.7). Of course, the Treasury might not agree with this assessment. After all, even if the macroeconomic constraint is not binding now, in early 2001, it might become so again in future, particularly if the UK were to enter the Exchange Rate Mechanism of the European Monetary Union.

The argument over whether PFI permits more investment than conventional public financing seems real enough to an NHS manager with a fixed cash budget from the Exchequer, but from the perspective of the UK economy as a whole it is simply a red herring. If the NHS manager can find room in his budget this year to pay a £1 million charge to a PFI consortium but does not have £10 million available in the capital budget to buy the same asset up-front (i.e. conventionally financed) then the PFI is 'permitting' an investment that otherwise would not take place. However, this is simply a consequence of the government applying a tight cash limit on the capital value of assets purchased if they are paid for by borrowing from the Exchequer, but not if they are financed by private sector lending. The same resources (broadly speaking) will be used in building the asset however it is financed and the taxpayer will eventually pay for it either way.

To illustrate this last point let us for simplicity assume, for the rest of this paragraph at least, that private and public costs of capital are equal[10]. Then, making annual lease payments to the private sector for 25-30 years, or the Exchequer just paying the capital costs of building the hospital up front as they arise, merely represent different time profiles of payments with the same ultimate total cost in present value terms. The PFI spreads the costs to the taxpayer of building the hospital, plus interest, over 25-30 years rather than leaving them concentrated into just the three year, say, initial construction period. The public sector acquiring assets via the PFI is analogous to an individual

10 The question of whether public and private costs of capital really are the same for NHS PFI projects is discussed in Chapter 6 below.

choosing to buy their house with a 25-year mortgage rather than paying cash for it up-front. The setting of fixed annual cash budgets for NHS bodies' Exchequer financed capital expenditure means that they do not have enough cash to exercise the up-front outright purchase option, so they have to take out a mortgage. They are forced to opt for a PFI option whether or not it is more cost-effective because that is the only way they can get sufficient funds together at the time that payments have to be made. They must still pay for the house eventually though, one way or the other.

Currently, Exchequer financed investment in the NHS is subject to two separate cash limited budgets. First there has to be enough cash in the capital budget this year and in the expected budgets for the next few years to meet the capital costs up-front as they are incurred. But then there also has to be enough cash in future years' expected revenue budgets to meet the capital charge payments that will arise when the asset has been constructed, along with all other claims on those budgets. For an Exchequer financed capital investment to proceed both of the expected budget constraints have to be met. If either constraint is expected to be binding then the investment will not proceed.

For a PFI investment, however, only one constraint has to be satisfied. A PFI investment may proceed as long as future years' expected revenue budgets are estimated to suffice to cover the PFI charges, along with all other claims on those budgets. There is no separate budget cap applied to the capital value of PFI assets invested in.

One way to remove this major deterrent to publicly financed investment would be to remove the separate capital budget constraint on Exchequer funded investment. It is entirely reasonable for the Treasury to seek to control the share of the nation's resources that is committed to providing public services such as health care. But this should apply equally whether an investment is funded in the first instance from public or from private borrowing. The current practice of directly limiting the scale of Exchequer financed NHS investment but not privately financed NHS investment is distortive. It drives NHS bodies to select PFI financed investment regardless of whether it is more or less cost-effective than an Exchequer financed equivalent.

Treating publicly and privately financed NHS investment equally means relying in both cases on the discipline provided by tight annual revenue budgets. NHS bodies have already to meet from these both their operating costs and the costs of borrowing to finance investments whether the borrowing is from the Exchequer or the private sector. The deterrent to wasteful investment is strong because an extra pound spent on interest payments and repayments of principal would have to be found by reducing spend on staff or other operating costs.

Equal treatment of Exchequer and PFI financed investment could be achieved by simply doing away with the Treasury's separate capital budget for the NHS. An alternative, though administratively somewhat cumbersome, approach could retain an NHS capital budget but set it at the level implied by the allowed total value of the capital assets to be invested in by the NHS, whether that is achieved with Exchequer or with PFI finance. Then every time a PFI option was chosen in preference to conventional financing, the amount counted against the capital budget would be the capital value of the assets purchased. That is, the capital budget would be revised downwards, i.e. cut, by the amount of up-front capital spend thereby avoided. There would be no need to adjust the revenue budget as this is already set to cover both NHS capital charges paid on conventionally financed investments and PFI charges.

Moving on from these macroeconomic considerations, however, the one constantly stated objective of PFI has been to obtain value for money by harnessing the entrepreneurial skills of the private sector to yield better quality outputs at lower or equivalent costs to the public sector. Unlike the quantity of investment issue, this is a genuine area of economic debate and is the focus of the remaining chapters of this book.

Official ambiguity about the PFI is unsurprising. Until 1989, ministers and civil servants keen to be seen not to waste taxpayers' money would advise that so-called unconventional financing of public sector investments would rarely be more cost-effective than similar schemes financed by straightforward borrowing from the Treasury. Proposals from the health service, local government or anywhere else for privately financed projects were usually seen as attempts to get

round the fixed annual limits on the quantity of Exchequer funds available for public sector investment, as indeed they often were, and were rejected accordingly. The 'Ryrie rules'[11], which until 1989 governed acceptance of such proposals, required that for every pound of capital expenditure funded privately, one pound would be taken off the allocation of public funds for capital. Then, over the next three years, a complete about turn in policy was made. By 1992 the government's officially stated presumption was that private finance was generally preferable to public. The basic economics had not changed in those three years, so why had the policy?

In *Explaining Economic Policy Reversals* (1994), Christopher Hood distinguishes between what he calls the 'mentionable' and the 'unmentionable' motives for governments' policies. Although Hood did not use the PFI as an example, his terminology is apposite. From time to time one of the PFI's underlying motives becomes less mentionable, namely the aim of reducing measured public expenditure in the short term as a tool of macroeconomic policy. A commentator criticising the PFI in terms of such unmentionable objectives might be portrayed as fretting over an irrelevance, but someone who ignores them is naïve.

A further problem when researching the PFI in the NHS is the dissonance between publicly stated and privately confided views. It is my experience, from numerous conversations with NHS managers, their (private sector) advisers and with civil servants, that they will readily admit off the record that conventionally financed schemes are generally more cost-effective than PFI alternatives. But all will keep their counsel when asked the same question formally. They have been told for years that if an affordable PFI bid cannot be attracted to provide their hospital development, then they will either have to do without, wait much longer or make do with only the first phase of the desired investment. Consequently NHS managers and their advisers instead keep their heads down and try to make the best of the PFI in the interests of winning some benefit for the local communities they serve.

11 Named after the senior Treasury civil servant who formalised the rules governing unconventional financing of public expenditure.

A final problem encountered when researching the PFI is the unavailability of hard data. It is impossible to be sure of the implied cost of capital within PFI consortia's bids; the true magnitudes and likelihoods of the risks involved in any project; and what the costs and benefits of a hypothetical, conventionally financed alternative would be. The data that do exist may be tainted by the pressures on all concerned to make a PFI scheme look good.

The extent of these analytical difficulties is such that much of the discussion of the benefits and costs of the PFI in the NHS inevitably relies on evidence that is circumstantial rather than decisive.

5 BENEFITS AND COSTS

5.1 Equity and efficiency

The following discussion focuses on the differences between the effects that PFI and conventional Exchequer funded routes to NHS capital investment might be expected to have. Applying an economist's approach to assessing the net benefit or otherwise of the PFI implies determining its impact on the equity and efficiency with which resources are used, and whether it makes any difference to the macroeconomic management of the UK economy as a whole. The issue of macroeconomic management was discussed in Chapter 4. The contribution of the PFI to the stability and growth of the UK economy is at best very slight and quite probably zero. In the rest of this chapter, therefore, the focus is on the equity and efficiency impacts of the PFI.

Equity

There are numerous types of equity that could be considered relevant (see for example Oliver, 2001), but the main impact in the context of investments in major assets such as hospitals will be on the geographical equity of access to such facilities.

The distribution of existing NHS capital assets, and hence of the services derived from them, between different parts of the UK and accessed by different groups in society is undoubtedly unequal. The question whether the PFI would make any difference in this regard relative to the conventional approach to capital investment, and if so what, does not appear to have been addressed explicitly in the academic literature to date.

The main mechanism by which greater geographical equality of access to NHS facilities is intended to be achieved is via the formula-based funding of the over 100 geographically defined health authorities/boards. England, Wales, Scotland and Northern Ireland each employ different formulae within their respective borders, but the underlying forms are similar. In each case, the intention is to take account of relative need for NHS services by the population in each health authority/board area in the country (see Oliver, 1999, for a discussion of this). The formula-allocated funds have to cover both the capital charges incurred by Trusts and health authorities as a result of

owning assets and any PFI contract payments they have to make, as well as all other costs such as staff and materials. Thus, in principle, a Trust can only invest in more or more expensive assets if it can afford to within the revenues it is paid from these formula-allocated and strictly limited funds[12]. This remains the case whether investment is funded conventionally or via the PFI. It seems, therefore, reasonable to assume that the existence of the PFI will make little or no discernible difference to the geographical distribution of health service capital assets around the country.

Efficiency

Efficiency may be considered under two broad headings in the context of the NHS PFI:

- allocative efficiency – whether the right mix of outputs is being produced. This means in effect whether the choice of PFI or conventional financing affects the balance of different types of health services that the NHS produces, e.g. hospital services versus community services; and
- productive efficiency – whether the right mix of inputs is employed to yield the maximum output. In other words, to achieve a given mix of health care services, is the PFI a more or less cost-effective way of spending the NHS's budget than conventionally financed procurement of assets and services?

Concerning allocative efficiency, several authors have argued that the PFI distorts investment priorities in the NHS by concentrating resources on the construction and maintenance of large new acute hospitals. Smaller schemes more suitable for primary, community and mental health care services, and refurbishment-based schemes that make use of existing assets, are thus argued to be relatively neglected. The PFI is seen by numerous commentators as replacing health service planning by doing what the private sector is most willing to

12 Trusts can earn private, non-NHS income, for example by providing private pay beds, and may also receive charitable donations from the general public, but these sums are generally small relative to NHS funds which are the source of the vast majority of NHS Trust income.

finance. See, for example: Boyle (1997); Boyle and Harrison (2000a, 2000b); Dawson and Maynard (1996); Gaffney and Pollock (1997); Pollock et al. (1999); and Shaoul (1999). The Audit Commission in its 1998 guidance *Taking the Initiative – a Framework for Purchasing under the Private Finance Initiative* warned NHS managers:

> 'It is also important to be aware that some schemes may be more attractive to the private sector than others – for example, because of their larger size. These schemes may not, however, be the highest priority for the public sector.' (Audit Commission, 1998, para. 19)

Where small-scale facilities are required, the PFI has not been much help hitherto. Most PFI investment has been in large projects and most small projects have continued to be financed directly by the Exchequer. This weakness of PFI with respect to small schemes has been recognised officially and proposals have been made to bundle together several small schemes into a single deal large enough to attract PFI consortia[13]. Such bundled schemes are only now starting to be signed-off, at least in the area of mental health services, namely:

- £21 million of PFI and £10 million of Exchequer capital have been committed to construction of new mental health care facilities for North Staffordshire Healthcare NHS Trust, scattered across several discrete sites;
- a £47 million capital value PFI deal to provide a range of nine new mental health care units around Leeds;
- North Birmingham Mental Health NHS Trust has signed a PFI deal with a capital value of £12 million to replace two Victorian hospitals with smaller, purpose-built facilities, including five new inpatient units and a day hospital for older patients.

Batching of large numbers of small primary care schemes such as clinics and GPs' surgeries has at the time of writing (February 2001) yet to happen. A survey of English Primary Care Groups (PCGs) by Paxton and Lissauer (2000) finds that on the one hand 'partnerships

13 The *Health Service Journal* of 26 March 1998 (p. 4) reported a conference speech by Alan Milburn, then Minister of State for Health, in which he suggested that redevelopment schemes for up to 30 health centres at a time could be batched together in single PFI contracts.

with the private sector are being widely considered by PCGs' but that 'significant reservations remain'. The English NHS Plan published in July 2000 announced that: 'The NHS will enter into a new public private partnership within a new equity stake company – the NHS Local Improvement Finance Trust ('NHS Lift') – to improve primary care premises in England' (Department of Health, 2000c, para. 4.11)[14]. The details of how NHS Lift will work and how cost-effective its approach will be relative to conventional financing of primary care capital investment projects remain to be revealed.

The private sector's comparative lack of interest in smaller schemes is presumably due to expectations of lower profits there at any given level of risk. This in turn is largely a result of the high costs of bidding for a PFI contract, including legal and other fees, which are only partly related to the scale of the capital works and subsequent provision of services involved. The *Health Service Journal* published in September 2000 a review of progress with the PFI in the NHS, in which it quoted the property investment director at Norwich Union Investment Management as saying 'I suspect we will be looking principally at projects with a value in excess of £5 million. The very small ones perhaps involve more work than is viable .... The increased use of batching in primary care can make them more economic' (Ward, 2000).

The PFI selection/bidding and contract negotiation process takes months, or even years, longer than the procurement process for Exchequer financed schemes. Meara (1997) found that for five major London hospital schemes the requirement to go through the PFI procurement process had added in each case up to two years. This offsets any advantages of quicker completion for PFI construction projects once they do get under way (Dawson and Maynard, 1996), a matter which is discussed in section 5.3 below.

Similar PFI transaction cost problems also arise for NHS managers. The NHS Confederation (representing most NHS Trusts and health authorities/boards) argues that the PFI is similarly unpopular

14 The Scottish and Welsh NHS Plans make no specific mention of using PFI to support investment in primary care facilities (Scottish Executive, 2000; National Assembly for Wales, 2001).

with health service managers because of the larger transaction costs that are entailed, compared with conventional procurement. In 1999 the Confederation reported to the Health Select Committee:

> 'the PFI process …. is at best a hindrance to the way we plan our capital developments. PFI is slow, it is bureaucratic, it requires us to put a vast amount of management time and consultancy fees at risk without the certainty of success.' (House of Commons Health Committee, 1999, para. 142)

A year later, despite close involvement with government ministers and civil servants in developing the English NHS Plan, the Confederation remained unrepentant: 'The Private Finance Initiative process is still slow' (NHS Confederation, 2000). In addition to the large amounts of senior NHS managers' time taken up during the procurement of PFI schemes, large sums have also been expended on specialist advisers. An average of nearly £3 million each was spent on external legal, financial and other professional advice during the procurement process by the NHS Trusts involved in the first 18 major PFI hospital schemes to be signed-off (House of Commons, 2000b).

As far as I am aware, no-one has yet suggested, let alone demonstrated, that the PFI will actually improve the allocative efficiency of NHS investment. At best it can be hoped to do no worse than conventional procurement of assets and services. At worst the PFI may have skewed investment towards high cost hospital schemes and away from smaller primary and community health care facilities because of the proportionally high transaction costs that PFI brings for the latter.

The main debate about the net benefits or costs of the PFI in comparison with the Exchequer financed route to NHS investment, turns on whether it increases productive efficiency. That is: to what extent does the PFI lead to lower cost and/or higher quality services than conventional procurement? This is the subject of the remainder of this book.

NHS PFI projects contain the following private sector inputs:

- design;
- construction and equipping of the new facility;
- provision of non-clinical services for the duration of the contract, typically 30 years or so;

- (sometimes) disposal of surplus NHS assets;
- finance for the capital investment.

A necessary, though not sufficient, condition for a PFI scheme to be of net benefit relative to an equivalent conventionally funded scheme (the 'public sector comparator'), is that the PFI project must yield lower costs and/or greater benefits in at least one of these five areas. They are considered in turn in the following sections.

5.2 Design

As shown in Chapter 3, official statements about the PFI are optimistic about its ability to harness for the NHS and its users greater benefits of private sector ingenuity and creativity than are captured by conventionally financed procurement. PFI contracts are intended to focus more on outcomes than inputs. Conventional procurement in the past is characterised as specifying the number, size, type and location of rooms required, the frequency with which floors are to be cleaned, and so on. PFI contracts, by contrast, are supposed to specify the types and scales of services that the hospital has to be capable of delivering to the public and the quality and standards of buildings etc. that need to be available to enable it to do that. How to achieve those outcomes is then to be left to the skill and ingenuity of the private sector consortium that wins the job.

In practice, it is inevitably a matter of speculation how the design of any particular hospital being built under the PFI might have differed if the scheme had followed a conventional procurement route of design, build and operate. It would be a mistake, however, to imagine that the conventional route ignores outcomes or blocks innovation. This applies to all aspects of a project but starts with the initial design.

Fashions change. During the late-1970s and the 1980s, the emphasis in NHS hospital building was on achieving a degree of standardisation in order to minimise construction cost and time. This reached its clearest expression in the so-called 'Nucleus' design based on linked one- or two-storey cruciform blocks. They are now a common feature of NHS acute hospitals: according to NHS Estates over 120 Nucleus designed schemes are in existence (Dix, 1998). During

the 1980s, the presumption in the Department of Health and HM Treasury became that Nucleus would be the basis of all new NHS hospitals and major extensions to them, unless site constraints or other factors warranted departure from it. In such a case, the reasons for departure had to be argued explicitly. In the 1990s however, the presumption for Nucleus-based design diminished, partly as a result of its success in contributing to better control of design and construction costs, which therefore ceased to be the overwhelming concern it had once been. Flexibility and innovation in design, rather than standardisation, were increasingly encouraged. Furthermore, as creativity and innovation are now encouraged in PFI schemes they should, presumably, be equally encouraged in conventionally financed projects.

The question is then whether there are significant differences between the design processes under PFI and conventional procurement. To the outside observer there is no distinguishable difference between the two processes. Under the PFI, the NHS Trust seeking a new hospital is supposed to specify the outputs it wants – how many patients of what types to be treated, for example – rather than the inputs it would like – numbers of beds, outpatient assessment rooms, operating theatres, lifts, scanners. However, in practice, it is the same process of NHS doctors, nurses, technicians, therapists and managers discussing with externally-appointed consultants, architects, surveyors and engineers how much of what size and type of facility to put where, and in relation to what other facilities.

The senior partner of a firm of architects[15] working on a number of PFI schemes who also has long experience of working on conventional NHS projects suggested to me that, from his perspective, the only significant change of process concerns the attention given to the future maintenance of buildings and plant. With PFI schemes he is required by the private consortium he works with to give greater thought to the maintenance of the hospital over the 30 years after it is built than was the case when working directly for the NHS. The NHS put greater emphasis on avoiding up-front capital expenditure rather

15 In another unattributable discussion – see Chapter 4.

than trading-off higher spend now for the promise of less maintenance and repair expenditure later. This is an important potential source of benefit under the PFI as it could result in lower lifetime costs.

However, I shall argue later in this book that it should be possible to obtain such benefits of private sector involvement without needing to borrow capital from the private sector. In other words, it should be possible to create effective incentives to optimise the balance between initial capital costs and subsequent maintenance/repair costs within Exchequer financed schemes. This means NHS Trusts letting long-term design, build and operate (DBO rather than DBFO) contracts when new hospitals are to be built, so that those who design and build the hospital take explicit account of the impact of design on subsequent operation, including maintenance, costs.

5.3 Building and equipping

NHS hospitals have long been built and equipped by the private sector, the successful contractors being selected via competitive tender. In that respect the PFI is nothing new. Conventional construction contracts contain penalty clauses for poor performance or late completion. Improving the efficiency of the procurement of equipment and buildings has been the focus of a lot of attention by NHS managers and civil servants for many years. Implementation of the NHS 'Capricode' procedures – the forerunner of current guidance – led to progressively tighter control over project costs during the 1980s and 1990s (NHS Executive, 1994; 1999).

The myth of continuing rampant cost and time overruns on conventionally procured major hospital projects is just that: a myth. It has been fed by some high profile apparent 'disasters' but the average performance has not been bad. In a recent memorandum to the Public Accounts Committee of the House of Commons, the NHS Executive stated:

> 'the overall performance of the NHS [on major capital projects] has shown a long-term improvement. The three year moving average for 1988-91 showed a time over-run of 14 per cent and a cost over-run of 13 per cent. The figures have

steadily declined to about 8 per cent and 7 per cent respectively. The NHS Executive reviews the figures on a quarterly basis.' (House of Commons Committee of Public Accounts, 1999)

All of the projects included in these figures were conventionally funded.

Measuring cost and time overruns on a capital project is not as straightforward an exercise as it might sound. Table 5.1 illustrates this point by setting out cost estimates made at various stages for two of the so-called 'disaster stories' of conventionally financed hospital construction and also for the first PFI hospital deal to be signed. The projects to build the new Chelsea and Westminster Hospital and to renew much of Guy's Hospital by providing a so-called 'Phase III' development, both of them in London, are commonly held to have been project management horrors. Table 5.1 shows that while this may be a fair description of Guy's Phase III, it would be rather harsh to bracket the Chelsea and Westminster in the same class. Depending on your choice of starting point, cost performance on the Chelsea and Westminster Hospital project was arguably better than it has been on the PFI Dartford and Gravesham Hospital.

The measured extent of a percentage cost overrun depends heavily on the starting point that is chosen, i.e. the initial baseline cost estimate. Table 5.1 compares the real cost escalations between the time that the project received government approval to proceed to tender and the eventual outturn cost. For the Chelsea and Westminster Hospital there was a real terms 4.5% capital cost increase between the budget cost stage (i.e. the last estimate made before the competitive tendering exercise to find contractors to do the work begins) and the outturn. Furthermore all of this increase incurred up to the point when the contracts to do the work were signed and before construction work started. Negative publicity has tended to focus on much larger nominal terms increases, starting from early estimates of the cost which were already out of date before the project was approved and were not the basis on which that approval was made.

The Guy's Phase III story is much less happy. The real terms capital cost increase between budget cost stage (in 1989) and outturn was

Table 5.1 **Capital cost overruns**

Unless otherwise stated, monetary values are in the price terms prevailing at the date the cost estimate was made (as indicated in parentheses)

£ million	Chelsea & Westminster	Guy's Hospital Phase III	*Dartford & Gravesham Hospital**
Baseline budget cost/ OBC** estimate	166.1 (1988)	83.1 (1989)	*164 (1996 price terms)*
Price when contracts placed	184.9 (1988)	N/a***	*176.5 (1996 price terms)*
Adjusted baseline estimate	193.3 (1992 price terms)	104.1 (1997 price terms)	*164 (1996 price terms)*
Outturn	202.0 (1992)	151.8 (1997)	*176.5 (1996 price terms)*
% nominal increase since budget cost/ OBC	+21.6%	+82.7%	*N/a*
% nominal increase since contracts placed	+9.2%	N/a	*N/a*
% 'real' increase over original cost	+4.5%	+45.8%	*+7.6%*

Notes: N/a = not available.
*Net present value of contract payments over 25 years, rather than just the capital costs, which are stated as an estimated £94 million outturn by the Comptroller and Auditor General (1999a).
**OBC = Outline Business Case. The OBC stage in the current NHS capital procurement process is broadly equivalent to the 'budget cost' stage of the previous Capricode procurement process. It represents the Department of Health and Treasury approved capital cost of the project just before tenders are sought from contractors.
***Guy's Phase III became a very complex project. A revised budget cost estimate of £118.1 million was produced in April 1991 before the contracts for the main construction work were let, but by that stage early enabling and construction work on site was already well under way, having been in progress since June 1989.

Sources: House of Commons Committee of Public Accounts, 1993; Comptroller and Auditor General, 1998; Comptroller and Auditor General, 1999a.

a shocking 46%, although part of this was due to the April 1991 introduction of 17.5% Value Added Tax on NHS construction projects. There are many lessons from the scrutiny of this project by the National Audit Office (Comptroller and Auditor General, 1998) and the House of Commons Public Accounts Committee (1999) but prominent among them is that 'second thoughts' have consequences. Design variations instigated by the NHS Trust added significantly to the cost. A PFI project might avoid this element of cost escalation but only by preventing the NHS client from making the design changes in the first place. If the changes are necessary then they need to happen even with a PFI project, and the terms of the PFI contract would therefore have to be renegotiated to accommodate them. Even if the design changes were not absolutely essential they were presumably of some value to the NHS Trust concerned, otherwise they would not have been allowed to upset the existing project and raise costs. To focus solely on the extra cost is to ignore the extra value of the revised project.

The sensitivity of arguments about cost overruns to the choice of baseline cost against which to compare eventual outturn costs is illustrated by the final column of Table 5.1. This shows the costs of the Dartford and Gravesham Hospital PFI scheme, completed in 2000. Unlike the rest of Table 5.1, the final column shows not just the capital costs of the project but the discounted net present value of all the costs contained within the PFI contract, including non-clinical services. The real terms outturn cost is the same as the cost agreed when the NHS Trust signed the deal with the private consortium. Thus the result is apparently zero cost overrun. However, the estimated lifetime cost in the Outline Business Case, Department of Health and HM Treasury approval of which triggered the competitive tender for contractors, was rather smaller than the cost eventually contracted for. The outturn cost for the PFI Dartford and Gravesham Hospital was 7.6% higher than the approved cost in real terms. The comparable cost escalations from approval of the Chelsea and Westminster and Guy's Phase III schemes (i.e. the approved budget cost figure immediately prior to tendering for contractors) to outturn were 4.5% and 45.8% respectively. Thus, on this basis, real cost escalation was actu-

ally greater with the Dartford and Gravesham PFI scheme than with the Exchequer financed Chelsea and Westminster Hospital.

Time as well as cost overruns are supposed to dog Exchequer financed construction projects. But the NHS Executive's evidence to the House of Commons Public Accounts Committee quoted above shows that this problem too has diminished. According to that evidence, time overruns on conventionally finance projects now average around 8%. For the 'disaster stories' discussed above: the Chelsea and Westminster Hospital was finished five months late: taking 42 months rather than the planned 37 (a 14% time overrun). Guy's Hospital Phase III was three years and four months (74%) late: taking seven years and 10 months rather than the planned four years and six months (including enabling works). Dartford and Gravesham Hospital has been delivered on time (in three years). The next PFI hospital completed, in Carlisle, was also on time. The time-keeping record of PFI schemes at this early stage is therefore excellent. It is nevertheless worth bearing in mind that time, and cost, overruns are not unknown in the private sector (think of the Channel Tunnel).

Arguments in favour of PFI point out the incentives it provides for the contractor to avoid construction cost or time overruns. The head of the private finance unit at the NHS Executive put it this way:

> 'The most important fact is that the NHS will not pay a penny more should a project suffer from design faults or cost or time overruns' (Coates, 2000)

But similar penalties can be, and are, built into conventional procurement contracts. Arguably, PFI has made NHS managers more aware of risk management (see section 6.3 below) and better at it than they were with pre-PFI, conventionally financed projects. If so, this is an important result. But the risk management lessons learned from PFI can now be applied just as well to conventional procurement.

A caveat is necessary at this point, which applies equally to PFI and conventionally financed procurement. Writing penalty clauses into contracts does not guarantee that no cost overruns, delays in delivery or other performance shortfalls will have to be borne by the NHS. There is still plenty of room for dispute over who caused the overrun or below par performance and, therefore, who should bear the cost.

Ask any lawyer. Furthermore, if to enforce the terms of a contract would at some future point risk driving a private contractor into bankruptcy, it may well be preferable to the NHS body to agree to renegotiate the contract and pay more, or demand less.

5.4 Providing non-clinical services

Provision of a wide range of services is typically included in the contract between a PFI consortium and an NHS Trust. Table 5.2 lists

Table 5.2 **Services that may be provided by a PFI consortium**

- Accommodation
- *Building maintenance
- *Car parking
- *Catering
- Courier and postal services
- *Domestic services (i.e. cleaning), window cleaning and pest control
- Energy and utilities management
- Equipment maintenance
- Financial services
- Grounds and gardens maintenance
- Information management and technology
- *Laundry and linen
- *Portering
- Reception
- Residential accommodation
- *Security
- Sterile supplies
- Stores
- *Switchboard and telecommunications
- *Transport (non-emergency)
- Waste disposal (including incineration)

Note: *An individual PFI contract may cover only a subset of the services listed. For example, only those marked with an asterisk were included in Dartford and Gravesham NHS Trust's contract with the Pentland consortium (National Audit Office, 1999).

Source: Adapted from Smith (1999), p. 26.

those that are possible. Clinical services – i.e. those delivered by doctors, nurses and the professions allied to medicine – have so far been excluded by the government from the ambit of PFI in the face of opposition from those groups and fearful of accusations of privatising the NHS.

The NHS has been required to competitively tender for catering, domestic services, laundry and linen since 1983. In-house teams have often won those bids, by offering apparently better deals than external contractors, so that competitive tendering does not necessarily mean contracting out to the private sector. Car parking, security and many of the other services listed in Table 5.2 are also commonly procured by competitive tendering. This type of procurement is well established in the NHS. Where it is not already used it certainly could be. Non-clinical services may be put out to tender singly or bundled together in broader 'facilities management' contracts. Therefore, the cost-effectiveness of PFI-style procurement of non-clinical services rests on whether signing a long-term contract with a PFI consortium that is also responsible for the design, financing and construction of the hospital, yields a Trust greater cost savings or other benefits than contracting with service providers directly.

A recent twist in government policy appears to throw doubt on whether the provision of some non-clinical services by external contractors, including those in PFI consortia, can be expected to give value for money after all. A curious but high profile element of the English NHS Plan published in July 2000 is its singling out of the need for hospitals to be made cleaner. Funds are to be earmarked for the purpose of improving hospital cleanliness and NHS managers will be made explicitly answerable for how clean or dirty their hospitals are found to be in unannounced inspections by 'a specialist inspection team including patients' (Department of Health, 2000c, paras. 4.14-4.15). The reason for the dirty hospitals lies, according to the English NHS Plan, with the policies of the internal NHS market and of competitive tendering (introduced by earlier Conservative governments) leading to a preference for low cost rather than high quality cleaning contracts. In his speech to the Labour Party Conference in September 2000, the Secretary of State for Health, Alan Milburn, announced that:

> 'All too often Compulsory Competitive Tendering lowered standards of cleanliness in our hospitals. Of course we should measure and compare how well cleaning and other services perform – and change them if they do not give the best value for patients. But Compulsory Competitive Tendering has not improved care for patients. It has damaged the NHS for far too long. It will now go.' (Milburn, 2000)

The Scottish NHS Plan[16] picks up the same issue, although expressing it in a lower-key way:

> 'There is a perception that standards of cleanliness in hospitals have deteriorated over the years. …. The NHS must achieve the best value in cleaning services – not just the lowest cost. The contracting out of cleaning services – while often appropriate – should no longer be seen as the norm.' (Scottish Executive, 2000)

Where this leaves the requirement hitherto to include non-clinical services in PFI tenders for hospital construction is unstated and unclear. However that conflict is to be resolved, this statement does not suggest great official confidence in the likelihood of future efficiency gains from tendering hospital ancillary services.

One area which falls outside the scope of this policy about-turn and which is seen as a potential source of significant benefit arising from the PFI's bundling together of services with the provision of buildings, is the improved maintenance of those buildings. Whether these benefits will be material will inevitably remain unanswered for a long time yet; at least until the first few PFI-built hospitals have been in use for 10-20 years so that there has been some experience of just how good building maintenance proves to be. However, it is probably fair to say that there is considerable scope for improvement over existing building maintenance standards in the NHS. The backlog of overdue maintenance work amounts to £3.1 billion in England alone (Department of Health, 2000c, para. 4.9). To NHS Trusts facing tight financial constraints, i.e. most Trusts most of the time, it has long

16 The Welsh NHS Plan (National Assembly for Wales, 2001) also raises the issue of dirty hospitals but does not blame contracting out, or indeed anyone or anything else, for it. At the time of writing (February 2001) no Northern Irish counterpart to the English, Scottish and Welsh 'NHS Plans' has yet been published.

appeared an acceptable trade-off to defer maintenance expenditure in order to release funds for new developments or to support existing staff commitments. The resulting shabby state of many hospital buildings is apparent to all who visit them.

If in future it appears that PFI buildings are indeed being maintained better[17], the question will then arise how much this is due to any or all of the following:

- more funds having been committed to maintenance under the PFI contract because the PFI contract effectively ring-fences the resources;
- a given amount of funding for maintenance having been used more effectively by the private PFI contractor than would have been achieved by NHS staff;
- synergies resulting from design, construction and maintenance of the hospital all being the responsibility of the same consortium;
- synergies, if any, resulting from the design, construction and maintenance consortium also borrowing the funds to finance the initial capital investment, rather than being paid up-front for it by the NHS client borrowing directly from the Exchequer.

Only the last of these hypothetical sources of benefit requires a PFI-style DBFO procurement. The other three potential sources of benefit could all be captured by competitively tendering hospital design, building and maintenance with long-term contracts that include penalties for poor performance. These would be DBO (design, build and operate) contracts. Just the 'F', the private finance element, would be dropped. Such DBO contracts can be seen as a new form of public-private partnership. They would certainly require a long-term relationship between the private contractor and the NHS Trust, but unlike the PFI they would not involve the NHS in borrowing capital from the private sector.

I shall return in Chapter 8 to the question of whether 'bundling' a range of services into a single contract with one consortium of itself produces benefits for the NHS.

17 We still have a good few years to wait before we will start to find this out as the first major NHS PFI hospitals were only completed in 2000.

An argument that is occasionally discussed, although in hushed tones for fear of provoking accusations of privatising the NHS, is that further significant savings in hospital running costs could potentially be achieved by the PFI but only if the bidding private consortia were allowed to provide the clinical as well as the non-clinical services. Clinical services account for around 70% of NHS hospital running costs and have not been subject to competitive tendering to the private sector. The reasons for this are political and rooted in public affection for the NHS as a non-commercial provider of health care. There is political unwillingness to take on the inevitable opposition from the medical, nursing and other health care professions without any prospect of public support. While the government continues to constrain the supply of doctors, and while shortages of nurses and other health professionals persist, it is also doubtful if any clinical cost savings could be captured by private consortia and passed on in lower prices or better services to the NHS rather than simply being diverted into higher pay for professional staff.

In the short term, the option of including any clinical services in PFI or competitive tendering exercises seems unlikely. This may not be true in the longer term, however. In the autumn of 2000 the government signed, and publicised, a 'Concordat' with the independent health care sector (Department of Health, 2000d). The Secretary of State for Health's pronouncements at the time the Concordat was signed, emphasised short term benefits to the NHS in being able to use spare capacity (operating theatres, beds) in private hospitals when NHS hospitals temporarily become full (Department of Health Press Release 2000/0629). However, the document itself states that:

> 'The concordat also signals however, a commitment towards planning the use of private and voluntary health care providers, not only at times of pressure but also on a more proactive longer term basis where this offers demonstrable value for money and high standards for patients. These, like NHS contractual arrangements, can, where appropriate be reflected in Long Term Service Agreements.' (para. 2.3)

In other words: the NHS may buy clinical services from private and voluntary sector providers on a planned and long-term basis. At

present the purchase of such services is not being discussed in the context of the PFI, but for how much longer? The link between the Concordat and the PFI is obvious.

5.5 Disposal of surplus assets

The private sector may be attracted by the possibility of obtaining surplus hospital land to develop it for housing or some other remunerative purpose. However, the value of this development potential in excess of what the NHS Trust would realise if it simply sold the surplus assets on the open market, can be expected to be zero. The fact that it happens also to be building a hospital for the land's previous owner is unlikely to enable a firm to extract any additional value from surplus land.

This view is stated explicitly in the Department of Health's latest guidance to the NHS on procurement and disposal of land: *Sold on Health.* Among the 'best practice' recommendations is that:

> 'Unless there are strong supporting commercial reasons, surplus land not integral to the development should be excluded from Private Finance Initiative (PFI) procurements.' (Department of Health et al., 2000, p. 2)

After noting that 'Including land in PFI deals can only be effective if it passes extra value to the private sector service provider over and above what would be achieved in an open tender situation' the Department concludes: 'It is considered that in the majority of cases, this criteria (sic) cannot be met' and explains:

> 'It is our experience that private sector commercial developers have the expertise to maximise surplus assets thereby increasing the initial value placed on these assets. However, PFI partners faced with these complexities, which are outside their field of expertise, will discount these uncertainties in their valuation. This is understandable, as the PFI partner's core business is to deliver serviced assets for healthcare and not property development.' (Department of Health et al., 2000, Appendix 8)

In short, PFI brings no added value over conventional sale to the disposal of surplus NHS land.

The discussion in this chapter has indicated that when comparing the efficiency of PFI schemes with what might be achieved now in equivalent but conventionally financed projects, where these include DBO schemes, the differences between them may not be great. In view of that, the question whether private borrowing costs more than public, after making due allowance for risk, becomes vital to the ability of PFI schemes to be as cost effective as conventionally financed alternatives.

6 THE COST OF BORROWING

6.1 Theory

The discussion in this chapter concerns the post-tax rate of return sought by private lenders to NHS PFI projects as compared with the cost of borrowing the same sum for the same purpose from the Exchequer.

The tax system can be a source of difference between the apparent private and public costs of capital for the same NHS project. The system of corporate taxation in the UK (as in many other places) has the effect of opening up a 'tax wedge' between the pre- and post-tax rates of return to a capital investment. This is because capital expenditure by a private company may not simply be included 100% as a cost in the year in which it is incurred to set against revenues when calculating taxable profits for that year. Rather the capital expenditure is spread over a number of future years, with different specific time profiles for different types of assets. Furthermore, a newly created SPV is unlikely to be earning any revenue in the first few years while it incurs the costs of building the hospital. The result is that the post-tax rate of return to a private corporate investor is typically one or two percentage points lower than the pre-tax rate. The exact size of the tax wedge depends on the type of assets purchased and the financial history of the investing company.

However, if tax were the sole explanation for higher private than public sector costs of capital, then the extra cost of PFI to the NHS would be exactly balanced by an increased flow of tax funds to the Treasury. This need not worry the UK's taxpayers, therefore. It would still be a problem to the NHS and its users, however, if this indirect payment of corporation tax were simply allowed to boost the Treasury's coffers. If no upward, pre-tax, adjustment were made to the NHS's resources to enable it to meet the tax element of PFI schemes' costs, the NHS would end up with less net funding than if its capital investments were Exchequer financed. Nevertheless, for the remainder of this chapter the focus is on whether UK taxpayers are disadvantaged by financing NHS capital investment from private lenders rather than the Exchequer. Hence the following discussion is about the post-tax cost of private finance compared with the cost of Exchequer finance.

When looking at empirical evidence on the cost of capital it is important to distinguish between the cost of borrowing to finance a portfolio of investments covering a diverse range of risk characteristics, and borrowing for one specific project with one specific set of risks attached to it. Different arguments about the existence or otherwise of a gap between the private and public costs of borrowing apply in each of these cases.

Arguments about whether public borrowing is cheaper than private for a broad portfolio of activities centre on views about the relative transaction costs involved and whether the perceived risk of default is, all other things being equal, greater when lending to the private sector than when lending to the government. The relative private and public costs of capital for investment in a specific project will necessarily reflect any such general underlying source of difference. But for any particular investment project there may be additional factors leading to a higher private than public cost of capital.

In the remainder of section 6.1 the general arguments about possible underlying reasons why the private cost of capital can or cannot be expected to exceed the public cost in general, are set out. Sections 6.2 and 6.3 discuss evidence of the cost of capital for PFI projects and of the risks that are transferred from the NHS to private consortia. Section 6.4 then sets out possible reasons that are specific to the NHS context for why private capital might cost more than public for capital projects there.

Before the 1992 launch of the PFI, official Treasury guidance stressed that:

> 'The government is generally able to finance activities more cheaply than individual agents in the private sector mainly because it is, from the perspective of the financial markets, a good debtor. It has the unique power to tax and its risks are spread over a wide range of activity. The transaction costs of government financing are also low and the market in government debt is liquid and efficient. The government is therefore able to borrow at very attractive terms.' (Treasury, 1991, Annex F, para. 5)

Interestingly the latest version of this Treasury guide, published in the new pro-PFI political world, omits the paragraph quoted above

(Treasury, 1997). Furthermore, it makes no mention whatsoever of the relative costs of public and private borrowing. The earlier argument has been neither reversed nor modified, it has simply been ignored.

The pre-PFI Treasury view had taken on something of the status of a received wisdom. Thus, to take just one example, Heald and Geaughan (1997) felt safe to conclude that 'because the Treasury can borrow more cheaply than a private borrower, recourse to private finance must bring with it savings in terms of capital and/or operating costs to be more cost-effective than a publicly financed project' (p.11).

A different view exists, however, which recognises that the rate of interest to be paid on government borrowing is lower than that on private borrowing for similar projects, but argues that this is because the public sector cost of capital hides the true cost of risk. Klein (1997) puts the view very clearly that public borrowing only appears cheaper than private because the government is able to coerce future taxpayers into meeting the cost of downside risks should they materialise:

> 'If taxpayers were remunerated for the risk they assume in the case of tax-financed projects, then ex ante there would be no capital cost advantage to government finance. The risk premium on government finance would, in principle, be no different from that of private investors. There is thus no justification on the basis of capital cost advantage, for government funding or guaranteeing the provision of private goods or services.' (p. 29)

Grout (1997) and Flemming and Mayer (1997) also make this argument. Flemming and Mayer even refer to it as 'the current orthodoxy'. Indeed the Treasury, in its 1991 guidance quoted above, recognised that 'public financing costs do not reflect the risks of individual projects' (Annex F, para. 6) unlike the private cost of capital.

Private consortia bidding for NHS PFI schemes typically comprise a large building contractor and a facilities management company, and often also include other specialised parties such as equipment suppliers, energy management companies and so on. The pattern hitherto has been for these companies to form a SPV with non-recourse financing, predominantly either bank loans or bonds linked to the contract with the NHS Trust, and a small amount of equity. If the SPV gets

into financial difficulties, lenders to it have no recourse to the larger financial resources of the parent companies. The lenders' returns in total depend solely on the financial success of the specific project and the contract signed with the NHS Trust. Thus in a competitive capital market, the argument goes, the cost of capital implied by the terms of the PFI deal necessarily represents the true cost of the risks involved in the project. If that is the case but public finance is available at a lower cost of capital for the same project, then the Exchequer is effectively subsidising the scheme at the expense of taxpayers in future years, who would have to pay for any downside risks that materialise.

6.2 Evidence?

Let us look first at the issue of the cost of government borrowing versus private corporate borrowing overall, rather than for any particular project. Spackman (1991) argued in a Government Economic Service Working Paper that 'bond finance for large private sector bodies typically costs up to a percentage point more than public borrowing'. He supported this by referring to analysis by a Treasury colleague which showed that over the period 1970-1985 private sector debentures yielded 0.9 percentage points more than government bonds (Melliss, 1991). This result suggests there may be an underlying and persistent cost disadvantage for private capital markets relative to government lending. This may in part be due to greater private sector transaction costs per pound invested, but presumably also derives from investors' fears, however small, of an unrecoverable default by even the largest of private corporations. That is, investors may still retain a (slightly) greater residual fear of someone disappearing in the night with their money when they lend to a private body than when they lend to the government.

The cost of borrowing from the private sector that is implied within the overall annual charge made by a private consortium to an NHS Trust under a specific PFI contract is not identifiable from publicly available information. Heald (1997) commented: 'The Treasury cannot or will not quantify the additional financing costs consequent upon financing ... by private finance rather than by government bor-

rowing, or quantify the interest rate differential. ..... Given the confidentiality which attaches to loan arrangements, systematic evidence about the additional cost of private finance can only be produced by the Treasury or, with a considerable time lag, the National Audit Office'. A one-off consultancy study commissioned by the Treasury Taskforce Private Finance found that across a sample of non-NHS PFI schemes the weighted average cost of private sector capital was '1-3 percentage points higher than public sector borrowing as measured by current gilts rates' and that the gap was narrowing over time (Arthur Andersen and Enterprise LSE, 2000, paragraph 2.9). It is not made clear, however, how much the private cost of capital had been adjusted for risk relative to (very low risk) government gilts in reaching this range of numbers.

The House of Commons Treasury Committee (1996) observed that finance for PFI schemes 'may require a premium of 6-9 percentage points above the gilt rate'. But this is to compare the cost of capital lending by the private sector to finance a particular PFI project, with its associated specific risks, with the cost of nearly riskless lending to the government. The gilt rate (typically of the order of 2-3% p.a. in real terms) takes no account of the risks attached to the specific project in question

The House of Commons Health Committee (1999) stated that 'serving private capital investment carries a premium when compared with the standard capital charges levied for public sector capital investment' (para. 145), these 'standard capital charges' being 6% p.a. in real terms, as described in Chapter 2 above. But, just as with the Treasury Select Committee in 1996, no attempt was made to compare the cost of borrowing from the private sector with the cost of public borrowing after allowing for any risks that would be transferred to the private consortium under the PFI. In its evidence to the same Select Committee, the NHS Confederation stated that 'There is an element of profit in PFI, which is necessarily taken by the private sector to motivate them to go into it in the first place, which results in an element of bad value for the NHS' (para. 142). But it is unclear just what the private sector 'element of profit' is being compared with in terms of a public sector cost of capital and risk. Unfortunately no fur-

ther information about the cost of capital in PFI schemes is reported by this or the earlier Treasury Select Committee.

The findings of Gaffney and Pollock and their colleagues are interesting in this context. In a series of articles since 1997 they have repeatedly noted that a variety of NHS PFI schemes assume exceptionally large reductions in the required bed capacities of the hospitals concerned (Gaffney and Pollock, 1997, 1999b; Pollock et al., 1997, 1999). There may be good reasons for some or all of these planned reductions, such as expectations of day cases replacing inpatient episodes, lengths of inpatient stay shortening and bed occupancy rates increasing. Downward trends in bed numbers and upward trends in day cases had been features of the NHS for many years before the PFI arrived, as the Department of Health's recently published National Beds Inquiry for England makes clear:

> 'The number of NHS staffed hospital beds (for acute, general and maternity care) peaked around 1960 at about 250,000. Although hospital expenditure has risen steadily, staffed hospital beds have been falling ever since. …….. There are currently 147,000 staffed beds in the acute, general and maternity sectors.' (Department of Health, 2000a, para. 18)

However, Pollock et al. (1997) noted that the PFI schemes were based on lower projections of demand growth, and even greater reductions in lengths of stay and higher levels of occupancy, than national trends would imply. A well designed new hospital might enable more efficient use of beds than an old one, but the extent of this is unclear. Length of patient stay and the level of demand for such stays will be largely independent of the age of the hospital and of whether it was PFI or conventionally financed.

An alternative interpretation is that the size of PFI hospitals is being squeezed to fit what the Trusts' main customers can afford within their cash limited budgets. The evidence is very circumstantial but is consistent with an attempt to scale down the cost of the bricks and mortar relative to what would be planned conventionally, in order to leave room for a higher private sector cost of capital. This interpretation is supported by unattributable (see Chapter 4) conversations the author has had with NHS managers and their management consultant advisers involved in

PFI schemes. A recurring view is that a conventionally financed scheme would be preferable but that no Exchequer funds are available for large investments in the NHS. Faced with the choice of either continuing with the existing poor facilities or going for a new but smaller PFI-funded hospital, it is easy to select the latter with a clear conscience. Demonstrating on paper the 'cost-effectiveness' of this choice relative to a public sector comparator, in order to satisfy official 'value for money' appraisal and audit requirements then requires only a little ingenuity.

The crux of the argument about whether private finance costs more than public finance for an NHS capital investment, rests on whether the undoubtedly higher rate of interest paid to private lenders accurately reflects the costs of the risks they assume. The next section therefore looks at the nature and extent of risk transfer from NHS to private sector in PFI schemes.

6.3 Risk transfer

To what extent does the NHS actually transfer risk to the private sector under the PFI? If risk transfer is small, then the justifiable interest premium paid to private lenders relative to Exchequer borrowing is similarly small. Only major risk transfer justifies a major additional cost of borrowing. The circumstantial evidence described in section 6.2 seems to indicate a substantial interest premium. So what kind of risk transfer is this paying for?

A wide range of risks is involved in designing, building, maintaining and operating a hospital. The details of the risks transferred from NHS to private consortium will vary from PFI contract to PFI contract but there is much common ground. The National Audit Office's (NAO) report on the PFI contract for the new Dartford and Gravesham Hospital provides a helpful illustration (Comptroller and Auditor General, 1999a, Appendix 4). This was the first major NHS PFI scheme to reach financial close and did so in July 1997. The NAO has also produced a report which summarises experience of risk transfer under PFI in all sectors, not just the NHS, up to mid-1999 (Comptroller and Auditor General, 1999b). Appendix 2 of that report lists and describes the numerous elements of risk that might be

involved in a public sector project for which a PFI deal is being considered, while stressing that not all of them might be relevant in any particular case. Box 6.1 lists the types of risk. For brevity the description of the risks is limited to the downside, but there are usually matching upsides too.

Both the NAO (1999b) and the Treasury Taskforce Private Finance (2000b) are at pains to stress that PFI contracts should only transfer risk to the private sector where it is cost-effective to do so. The chances are that there is always some price at which a private consortium will take on a particular risk that would with a conventionally financed scheme be borne by the NHS and hence ultimately by the taxpayer. However, if the private sector is unfamiliar with dealing with a particular kind of risk, or lacks the ability to manage it, transferring the risk from public to private sector will not make economic sense. The extra fee charged by the private consortium will then exceed the benefit gained by the NHS as a result of transferring the risk. A case in point with respect to NHS schemes is demand risk: i.e. the risk that a hospital will prove to be too big or small, or of the wrong form, to be able to meet the future volume and mix of health care services that turn out to be demanded of it. In no NHS PFI scheme has it been deemed cost-effective to transfer demand risk to the private sector.[18]

When risks are indeed transferred to the private sector, then this is a clear benefit to the public sector and the taxpayer. For then, if a downside risk materialises, e.g. a project overruns on cost, it will be for the shareholders of (and potentially other lenders to) the private company involved to bear the cost, not the taxpayer. A fact that often appears to be overlooked in the PFI debate needs to be pointed out here, however. Risk is not all downside. If expectations are exceeded, for example costs fall short of what was allowed for, then with risk transfer it is the PFI consortium's shareholders who retain this upside benefit, not the taxpayer. Risk cuts both ways.

Some risks can also be transferred to the private sector with conventional, Exchequer financed procurement. For example, construc-

18 Anyone keen to see the scope of risk transfer that is officially seen as possible – if not in every case – can scan through the, lengthy, standard form PFI contract that has been constructed by the Treasury Taskforce Private Finance (2000b).

Box 6.1 **Categories of risk**

Design and construction risks
- Surveys and investigations fail to identify problems
- Construction period overruns, alternative service provision needed during the delay
- Construction costs overrun
- Facilities not provided to the required specification

Commissioning and operating risks
- Services fall short of specified performance standards
- Assets unavailable for use – 'availability risk'
- Operating costs higher than expected
- Inadequate maintenance of assets
- Costs of maintenance higher than expected

Demand risk
- Use of assets/services falls short of expectations – also called 'volume risk'

Residual value risk
- Value of assets at end of contract falls short of expectations

Technology/obsolescence risks
- Quality of services adversely affected by assets becoming technologically obsolete
- Asset renewal costs higher than expected

Regulation risk
- Changes to tax system, planning regulations, environmental standards, health and safety regulations, other legal requirements including NHS-specific

Disposal risk
- Where project includes disposal of surplus assets, risk that the sale price is lower than expected

Source: Comptroller and Auditor General (1999b), Appendix 2.

tion can be paid for in a fixed price contract to prevent cost overruns falling on the NHS, whether Exchequer or PFI financed. Equally, the same penalty clauses for under-performance can be built into contracts for provision of services whether they are separate contracts for individual services obtained by competitive tender in the usual way or are bundled up with numerous other services in a PFI contract.

The following list sets out just those public to private risk transfers possible under PFI that have not occurred with conventional NHS procurement. It is the transfer of these risks that is supposed to provide justification for the private cost of capital in PFI deals exceeding the public cost:

1. Construction time overruns are deterred because the contractor is not paid anything until the hospital is finished.
2. Construction time overruns are deterred because the duration of the total contract is fixed, so that every month's delay in opening the new facility means one month less in which the contractor can earn availability payments from the NHS Trust.
3. The contractor is responsible for maintaining the hospital and the NHS Trust can reduce its payments to the contractor if they fail to do this; the contractor also bears the risk of maintenance costs or any related insurance costs increasing unexpectedly. Together these amount to 'transfer of maintenance risk'.
4. Payments to the contractor are reduced if areas of the hospital are not used because the contractor has failed to make them available, and (smaller) reductions to payments if areas which are substandard are nevertheless used by the Trust for want of a better alternative.
5. If the private consortium retains ownership of the hospital at the end of the contract period, they bear the residual value risk if the NHS Trust decides that it no longer wishes to use part or all of the hospital.

However, this list exaggerates the total net risk transfer from the public to the private sector when comparing PFI with conventional procurement of the kind practised hitherto[19]:

19 The scope for new forms of Exchequer financed procurement that could encapsulate further risk transfer without the need for private finance is discussed in Chapter 8 below.

- with respect to item 1 above, although a similar arrangement could be included in conventionally financed procurement of a hospital, this did not commonly happen. More usually there are financial penalties in the construction contract whereby the contractor would have to compensate the NHS Trust for late delivery for which the contractor was responsible. Such penalties could also substitute for item 2 above;
- in respect of item 4 in the list above, where the unavailability of parts of the hospital is due to substandard cleaning, for example, financial penalties can be built into a conventional cleaning contract too. Arguably, however, the penalties in existing cleaning contracts have in practice fallen well short of the opportunity cost to the NHS of contractors' failings. The difficulty of monitoring and enforcing standards written into any given contract is the same whether it has been let independently or as part of a larger PFI deal. Where unavailability is due to poorly maintained buildings or equipment this is the same point as item 3 above;
- it is unlikely that the residual value risk referred to in item 5 can in practice be transferred to the private sector in PFI deals. In response to criticism that the PFI could surreptitiously privatise NHS hospitals by passing the buildings and the land they stand on permanently into private hands, the government requires that PFI contracts either return assets to NHS ownership at the end of the contract life or that they include the option for the NHS to take the hospital back into public ownership then. The private sector does not write blank cheques for the NHS, however, and so will only accept this if the financial terms under which return of assets to the NHS will take place are agreed in advance.

Under NHS PFI deals the private consortium takes on no demand risk. Whatever the future demand for the services of the hospital, the consortium's profits will be unaffected. This distinguishes PFI in the health service from transport infrastructure schemes such as roads, bridges and tunnels. In those cases the PFI consortium's costs are largely invariant but their income and hence profits vary directly with the volume of use of the facilities they provide, e.g. via toll charges. The availability payment element of an NHS PFI contract – i.e. the

charge for the contracted buildings, plant and (where included) equipment being available in working order throughout the specified period, and which is typically more than half the total contract value – will be paid whether the hospital is used or not. The consortium may also be reimbursed by the Trust for any other costs that it unavoidably incurs.

This consideration of risk transfer in practice throws the spotlight onto the transfer of maintenance risk as being clearest area where the PFI could provide significant benefit beyond conventional procurement of capital assets and competitive tendering of non-clinical services. The NHS has long experience of the risks involved in maintaining hospitals in an operational state. But when unexpected repairs or maintenance are required in a NHS hospital, this may lead, at least partly, to a decline in the quality of the hospital environment rather than an increase in expenditure in order to maintain it. Bound by the terms of its contract with the NHS Trust, a PFI consortium cannot so readily sacrifice quality, although it will retain some scope for that as Trusts will not find it easy to measure quality against pre-set standards and enforce penalties for variations.

One final risk that might in principle be considered in seeking reasons why borrowing from the private sector costs more than borrowing from the Exchequer, is the risk to the PFI consortium that the NHS will default on its payments. Changes to the law have reduced this risk effectively to zero, however.

First, the National Health Service (Residual Liabilities) Act 1996 removed the possibility of PFI companies dealing with the NHS being left with assets and/or contracts that had become worthless. An NHS Trust cannot become bankrupt and only the Secretary of State can dissolve it (National Health Service and Community Care Act 1990). Before the 1996 Act, PFI bidders had expressed the fear that if a Trust in financial difficulties were to be wound up, then there was nothing in law to prevent the Secretary of State transferring the assets to another Trust but not the liabilities. This would enable the hospital and other Trust services to continue without interruption, so as not to harm the population served by them, but would leave the PFI contractor, and other creditors of the defunct Trust, with unpaid bills and no prospect of compensation. Arguably this would never have been a

politically feasible course of action for a government minister, but the 1996 Act has also removed the legal possibility.

Second, the NHS (Private Finance) Act 1997 made it clear that NHS Trusts would not be acting ultra vires in signing a PFI contract. As a result, a PFI consortium can be sure that its bills will continue to be paid.

6.4 Rent and fear

Evidence concerning the cost of PFI capital is weak and circumstantial. Hence the question whether or not the PFI contains an in-built cost disadvantage due to the private cost of capital exceeding the public even after the costs of risks transferred have been taken account of cannot yet be resolved empirically. There are, however, two a priori reasons for concern that PFI in the NHS may entail unwarrantedly high costs of capital even after allowing for risk transfer, namely:

- greater scope for opportunist rent-taking by the private sector as a result of the process by which NHS Trusts obtain competitive tenders to undertake the design, build, financing and operation of the new hospitals they require; and
- private sector fear that it is taking on a responsibility that it knows less about than do the NHS agencies with which it is negotiating. To assuage this fear, if it exists, a higher rate of return would be sought.

Opportunist rent taking

Initially, interest from private consortia in bidding for NHS PFI schemes was great. All advertised tenders received numerous expressions of interest and several bids. For the construction firms that form a large part of all bidding consortia, this interest was heightened by the paucity of other major construction work available to them in the UK in the 1990s. This suggests the existence of a fairly competitive market, with little scope for collusion and the extraction of monopoly rent by the bidding consortia.

However, as the period from late 1992 to early 1997 unfolded, more and more NHS PFI schemes were advertised and so more and more bidding and negotiation processes were entered into. Tendering costs mounted progressively on all sides but financial close was not

reached on any major NHS PFI scheme. Faced with rising costs and no sign of revenues to follow, some major companies announced that they would not bid for any further NHS PFI schemes until those already in the pipeline had been signed off. In this climate, effective competition may have declined and those bidders who remained might consequently have been able to extract some monopoly rents by charging higher prices for their services and capital. After all, the NHS Trusts courting them had been told by government ministers that if their projects were to be realised, then it would have to be with PFI capital. Now that, since July 1997, the logjam has broken and several major NHS PFI schemes are reaching financial close each year, the scope for such opportunistic rent-taking should diminish, but it may not disappear completely.

The prolonged and detailed process by which a PFI agreement is reached and a contract is drawn up between an NHS Trust and a private consortium, remains. The nature of this process is such that even when the NHS Trust has identified its preferred partner and is negotiating one-to-one with the chosen private consortium, there remain months of detailed negotiations before the financial arrangements are concluded. Compared with conventional procurement of assets and non-clinical services separately from one another and without private capital, these financial negotiations under PFI are more complex. The PFI process is also less transparent to the NHS negotiators. It is a requirement of the PFI that the NHS Trust should pay a 'unitary charge' to the PFI consortium rather than separate payments for different aspects of the bundle of services being provided[20]. The single 'unitary charge' stream conflates payments of principal and interest, charges for ongoing services, returns to equity and contingencies for risk.

During the final negotiating period the private consortium may be able to argue its prices upwards slightly and/or its risks down to obtain some monopoly rent. Its ability to do so depends on its negotiating skill and the extent to which it is able to make a credible threat of withdrawing and so leaving the NHS Trust with having to go through the tendering exercise again from the start. This threat is constrained by the fact

20 The Treasury's standardised PFI contract states 'there should be a single Unitary Charge for the Service which is not made up of separate independent elements relating to availability or performance' (Treasury Taskforce Private Finance, 2000b, p.I 75).

that the consortium as well as the NHS Trust will have sunk a lot of costs in getting so far, and consequently they will not lightly opt to withdraw.

Nevertheless, the National Audit Office expressed concern about just such rent taking by the private consortium, Pentland, in the Dartford and Gravesham Hospital project:

> 'The final stages of the procurement ….. were not fully competitive because the Trust received only one bid from their shortlist of two bidders. …... the contract terms the Trust eventually agreed with Pentland arose from a period of negotiation over twelve months rather than through competitive bidding.' (Comptroller and Auditor General, 1999a, p. 7)
>
> 'We asked the NHS Executive to what extent there had been a lack of competition at the final bidding stage on other PFI hospital projects. They identified that in three of the other 14 early PFI hospital projects there had also been only one final bid.' (Ibid. p. 33)
>
> 'In Pentland's final bid and during the Trust's negotiations with Pentland after their selection as preferred bidder, there were changes to the details of the risk transfer …. These changes either reduced the level of the potential financial burden on Pentland or decreased the likelihood of that burden occurring …. The Trust did not receive any reduction to the contract price from Pentland for these changes.' (Ibid. p. 59)

Whether or not there has been similar opportunistic rent taking by the private sector in other PFI deals, is practically impossible to know. The scope for this is obvious if only one shortlisted firm bids for the contract, as in the Dartford and Gravesham case and at least three others. But some opportunity remains in any PFI process during the time between selection of preferred bidder and eventual financial close of the deal. The complexity of the PFI process means that this time gap is greater than in conventional procurement. The NHS Executive in its good practice guidance to Trusts provides an indicative timetable that leaves 190 days between commencement of negotiation with a single preferred bidder and eventual financial closure of the deal (NHS Executive, 1999, Section 2, Appendix 1). Many deals will take longer in practice, not just Dartford and Gravesham.

Fear

There may be a small element of risk perceived by private companies contemplating PFI investment in the NHS that arises from the involvement of government agencies and NHS clinical staff rather than from the nature of the assets invested in or the services provided. Potential private investors may fear that as a result of currently unforeseen changes in NHS policy or in working practices by doctors, nurses and other hospital staff employed by the NHS and hence outside the private consortium's control, the return to their investment will be reduced. Unlike energy, telecommunications, water and transport utilities, the UK government does not regulate the prices paid to PFI consortia for their services to the NHS, or the profits earned by them. So in the NHS context the issue is not the comparatively familiar one for the private sector of 'regulatory risks'. Rather, the issue is fear of unexpected changes being imposed by the government or NHS bodies or health care professionals (who lie outside the control of the PFI consortium) that will affect their future profits in some way.

In the case of NHS PFI schemes, the (only) paying customer is effectively the government. In other kinds of PFI schemes where there are third party customers independent of government and its agencies, e.g. motorists wishing to use a toll bridge, private financiers may feel more comfortable about taking on long-term investments in specialised assets. But where the private consortium's future income stream appears to them to be subject to the discretion of government agencies and their staff, they may seek a premium price.[21]

The Audit Commission (1998) makes explicit reference to private lenders' fears:

21 Akerlof's famous 'market for lemons' analysis has relevant lessons (Akerlof, 1970). He demonstrated that when purchasers of goods or services can tell less about the quality of what they are buying than the sellers, i.e. there is an information asymmetry, then they will tend to assume the worst and only be willing to pay correspondingly low prices. Akerlof used the example second-hand cars, 'lemons' being particularly poor quality specimens. In the NHS PFI case this can be translated as follows. If the bidding consortia fear they are on the wrong end of an information asymmetry which could lead them into future financial loss, then they will demand to be paid a higher fee by the NHS Trust for provision to them of hospital services. In the NHS PFI case, however, it may just be that private consortia and/or their financiers are uneasy about what is for them a new area of activity requiring long-term commitments.

> 'Financiers may well be new to the public sector and uncertain about its legal powers and decision-making processes. A high degree of caution may be fuelled by past legal decisions involving public bodies where banks suffered large losses.'

This appears to refer primarily to the London Borough of Hammersmith and Fulham 'swaps' scandal of the 1980s. There, millions of pounds owed to banks as a result of losses on financial transactions by local authority officials were left unpaid because those officials were judged by the courts to have been acting ultra vires. Hence the Borough Council could not be held responsible by the banks for meeting the financial obligations entered into illegally by its employees. It is unclear whey the Audit Commission still felt that the observation quoted above was relevant to the NHS in 1998 even though the NHS (Private Finance) Act 1997 had been passed the previous year. The explicit purpose of that Act had been to quell private sector fears by stating explicitly that NHS Trusts would not be ultra vires in signing up to PFI contracts.

If the financiers of PFI consortia believe that they lack some information about the future prospects of a hospital scheme, it is then inevitable that private finance will cost more than Exchequer finance. The private sector cost of capital will include a premium for any risks they perceive, even if that premium exaggerates the true level of risk associated with a project. However, over time experience should reduce ill-founded fears and hence the premium demanded – provided of course that the PFI schemes under way avoid unforeseen problems.

6.5 Summary

The debate about whether the cost of private finance really exceeds that of Exchequer finance is far from straightforward and cannot be resolved empirically with the information currently available. This chapter has, however, demonstrated that there are reasons for expecting the post-tax cost of private finance to exceed the cost of public borrowing even after adding to the latter the costs of risks transferred to the private sector under PFI contracts. Some or all of the following

factors may contribute to that excess private sector cost:

- the lower cost of government versus corporate borrowing in general due to lower transaction costs and risk of default;
- private sector unfamiliarity with the risks involved in keeping large and complex NHS hospitals functioning and fear of future changes induced by the government, NHS agencies or NHS hospital (especially clinical) staff;
- greater opportunities than in conventional procurement for rent taking by the private consortium in the six months or more between selection as the preferred bidder and financial closure of the PFI deal.

Private capital will not cost less than public, even after allowing for risks transferred. It may well cost more. How much more is uncertain from the existing evidence.

It is sometimes argued that to believe that the cost of public capital for a particular investment is less than the cost of private capital is tantamount to proposing that we could improve the efficiency of the economy if the government were to finance all investment by private companies and individuals. A fallacy in this argument, however, is that it ignores the question of allocative efficiency. Private capital markets are part of the mechanism by which funds are allocated according to the relative expected risks and returns of alternative investment opportunities. The government cannot fulfil that market function as it has no fear of bankruptcy when it makes a mistake. When considering NHS and other public sector investments however, the private market mechanism has already been explicitly set aside as it would fail to make socially desirable investments in those activities. Political allocation of resources has by popular vote been explicitly substituted for market allocation in those special cases only, which in the UK include health care.

In this and the preceding chapter, I have analysed individual elements of the PFI package to try to determine the scope for it to yield value for money overall. The balance of pros and cons of PFI compared with conventional financing and procurement is unclear. There appear to be no decisive arguments either way. Based on the preceding chapters, PFI is not a priori better or worse value for money than

conventional procurement when taking all elements into account: design, construction, financing, provision of non-clinical services, disposal of surplus assets. The balance of costs and benefits is a fine one.

This uncertainty appears odd given that so many NHS PFI schemes are being approved by the government. After all, that approval is supposed to depend upon an explicit demonstration by the NHS Trust concerned that the PFI option in each case can reasonably be expected to yield greater value for money than an equivalent Exchequer financed scheme. Each one of the approved PFI schemes has been subjected to an economic evaluation showing it to be more cost-effective than the alternative 'public sector comparator'.

In the next chapter, therefore, key elements of the process by which the cost-effectiveness of PFI schemes is appraised in the NHS are analysed. The focus is on the choice of discount rate and possible double counting of the costs of risks when comparing the net present values of the PFI and public sector comparator options. Given the finely balanced nature of the net benefits/costs of PFI versus public sector options in the NHS, even small changes in the choice of discount rate and/or costing of risks can swing the argument.

7 VALUE FOR MONEY?

7.1 Estimated savings

To test the value for money of a PFI scheme requires the NHS Trust sponsoring it to carry out an economic evaluation following formal government guidelines. These are set out in general terms in the Treasury 'Green Book' (1997) and specifically for health service projects in the NHS Executive's PFI good practice guidance (NHS Executive, 1999). The latter guide strictly speaking applies only to the NHS in England, but the NHS guidelines in Northern Ireland, Scotland and Wales mirror it. The core of the economic evaluation is to compare the costs and benefits expected from the PFI scheme with those that would be expected from an equivalent scheme that differs only in that it is Exchequer financed rather than privately financed. To quote from NHS Executive's good practice guide:

> 'The Public Sector Comparator (PSC) represents a risk adjusted costing of the public sector's solution to an output specification produced as part of a PFI procurement process. Throughout the process, the PSC serves as a benchmark against which the value for money of the different funding options can be assessed.' (NHS Executive, 1999, Section 3, paragraph 3.1)

Based on comparison of PFI options with their corresponding public sector comparators, a consultancy report commissioned by the Treasury's Taskforce Private Finance found that:

> 'The average percentage estimated saving against the PSC for our sample of projects was 17%. On the basis of the public sector's own figures, the PFI therefore appears to be excellent value for money' (Arthur Andersen and Enterprise LSE, 2000, paragraph 2.1).

The result was based on a sample of 29 projects (equal to about a third of the total number) that were operational at the time of the research in the second half of 1999. This excludes all NHS PFI schemes, the first of which did not become operational until 2000. The sample was not random but rather was obtained by asking civil servants in government departments to submit examples. This is not an unbiased selection process. Schemes included in the study may well have higher than average expected savings.

NHS PFI schemes appear to offer cost savings much smaller than 17%. The National Audit Office has so far reviewed one NHS PFI project, Dartford and Gravesham Hospital, for which it found that the PFI option is expected to cost just 2.8% less than the public sector comparator[22] (Comptroller and Auditor General, 1999a). Such a small amount must lie within the margin of error for estimating the cost differences between the PFI option and the public sector comparator.

The new Cumberland Infirmary in Carlisle is the first NHS PFI hospital to open its doors to patients. Data from the Full Business Case used to justify that PFI deal show it achieving an expected 1.0% present value lifetime cost saving relative to the public sector comparator when a 6% discount rate is used. But at a discount rate of 5.6% or lower the public sector comparator would be better value for money (Gaffney et al., 1999; Price et al., 1999).

The Full Business Case for the North Durham (Dryburn) Hospital claims, based on a 6% discount rate, that the present value costs of the PFI and public sector comparator options are exactly the same (Gaffney and Pollock, 1999a). At any discount rate below 6% the public sector comparator would offer better value for money.

Boyle and Harrison (2000b) draw on data provided to the House of Commons Health Committee to show that the narrowness of the gaps between the net present value costs at a 6% discount rate of the PFI options and their public sector comparators is general. The data collected cover the first 11 major NHS PFI schemes in England, including the three already mentioned in the previous three paragraphs. Among these 11, the average saving claimed for the PFI option relative to the public sector comparator is just 1.6% and the greatest saving expected to be achieved by any project is 4.2%. These are the savings after adding to the public sector comparator's cost the estimated value of the risks that are transferred to the private sector in the PFI option.

An inevitable weakness of the economic evaluations that produce these estimates of expected savings is that whereas the PFI option is

22 This was lower than the 8.9% saving claimed by the NHS Trust because the National Audit Office found errors in the Trust's evaluation.

real the public sector comparator is an invention. At the point when the evaluation is carried out the PFI contract, which all parties will be held to, exists. It specifies what the private consortium is to provide and how much they will be paid by the NHS Trust. As explained earlier, NHS Trust managers faced with the need to construct a public sector comparator that shows the proposed PFI deal to be cost-effective can be expected to have little difficulty doing so if they know that no PFI means no new hospital. It is doubtful how much reliance can be put on supposed demonstrations of cost-effectiveness based on a system containing such a bias. This bias will only be removed when it has been shown to everyone in the NHS that conventional financing is seen by the government as just as attractive as PFI.

Even if we take the PFI comparisons with artificial public sector comparators at face value, there remain at least two reasons to question whether they demonstrate that NHS PFI schemes are value for money:

- the choice of 6% per annum as the real discount rate for comparing the present values of the lifetime costs of the PFI and Exchequer financed options;
- the attribution of costs to the risks transferred under PFI contracts.

7.2 The discount rate

The Arthur Andersen/Enterprise LSE, National Audit Office and House of Commons Health Committee estimates of PFI savings relative to public sector comparators are all taken from calculations that used a 6% real annual discount rate to convert the stream of costs in each option into a single net present value. Where the cost advantages of the PFI schemes estimated this way are small, a slightly lower discount rate than 6% would tip the evaluation in favour of the public sector comparator.

A positive discount rate reduces the weight given to costs that are incurred later relative to those incurred earlier. The present value in year 1 of a cost C_1 incurred in that year is simply C_1. The present value in year 1 of a cost C_2 incurred in year 2 is $C_2/1.06$ when the discount rate is 6%; and the present value in year 1 of cost C_n incurred in year 'n' is $C_n/(1.06)^{n-1}$. In general the present value in year 1 of a

cost incurred in year 'n' is $C_n/(1+r)^{n-1}$, where 'r' is the discount rate expressed as a decimal. With conventionally financed investments, the NHS bears a lot of costs in a short period up-front: paying for the construction of the hospital in full as it is built. Under the PFI, by contrast, the NHS pays nothing up-front but instead makes annual lease payments for 30 years or so, commencing once the new hospital is ready to use. The higher the discount rate, the lower is the calculated present value of the longer term annuity payments in the PFI option, but the present value of the construction costs incurred in the first few years in the conventional option is reduced only a little.

Box 7.1 shows a simplified illustration of this. It shows a £100 million construction scheme which is either paid for as it is built – the 'conventional' option – or via an annuity lease payment spread over 10 years from when the hospital is complete – the 'PFI' option. The annuity payment of £13 million in the latter case has been chosen to illustrate the importance of the choice of a 6% real annual discount rate. The total undiscounted lifetime cost of the PFI scheme is higher: £130 million compared with the £100 million outlay the NHS would face if it chose the conventional payment route. This is an unfair comparison, however. Recognition needs to be given to the advantage of paying later rather than sooner, which the 'PFI' option provides. Using the government's recommended 6% real discount rate makes 'PFI' the lower cost option with a total present value cost as at year 1 of £95.7 million versus the conventionally financed option's present value cost of £100 million. In such a case the 'PFI' option would be seen as achieving a cost saving of 4.3% relative to the 'conventional' alternative. However, if the discount rate used were only 4% real p.a., the 'PFI' option would be the more costly, at £105.4 million rather than £100 million. In this case the 'PFI' option is seen as costing 5.4% more than the 'conventional' option. Thus the demonstration of value for money is sensitive to the choice of discount rate. In the example in Box 7.1 the turning point is 5.08%: at discount rates higher than that the 'PFI' is the lower cost option, while at discount rates below that the 'conventional' option is the less expensive. Other comparisons of options would have different turning points depending on the exact streams of payments in each case.

Box 7.1 **The impact of discount rates**

For simplicity, this hypothetical example just shows the costs associated with the fixed assets element of an investment and not with subsequent running costs which would be paid for annually in both 'conventional' and 'PFI' options. This highlights the role of the discount rate.

Present value (PV) in year 1 of cost C_n incurred in year 'n' = $C_n/(1+r)^{n-1}$
Where r = 0, 0.04 and 0.06 respectively for PV undiscounted, discounted at 4% p.a. and discounted at 6% p.a.

£m	'Conventional option'			'PFI option'		
Year	**Undiscounted cost to the NHS**	**PV cost discounted at 4% p.a.**	**PV cost discounted at 6% p.a.**	**Undiscounted cost to the NHS**	**PV cost discounted at 4% p.a.**	**PV cost discounted at 6% p.a.**
1	100	100	100	0	0	0
2	0	0	0	13	12.50	12.26
3	0	0	0	13	12.02	11.57
4	0	0	0	13	11.56	10.92
5	0	0	0	13	11.11	10.30
6	0	0	0	13	10.69	9.71
7	0	0	0	13	10.27	9.16
8	0	0	0	13	9.88	8.65
9	0	0	0	13	9.50	8.16
10	0	0	0	13	9.13	7.69
11	0	0	0	13	8.78	7.26
Total PV cost	**100**	**100**	**100**	**130**	**105.44**	**95.68**

The narrowness of the claimed cost advantages (after risk transfer) for the PFI options in all the NHS schemes discussed above, suggests that at a discount rate only a little below the 6% used, the PFI options would cease to be value for money. So is 6% the appropriate rate?

Since 1991 the government has recommended that NHS and other public bodies should use 6% as the real annual discount rate in

option appraisals. Previously a rate of 5% had been in widespread use throughout the public sector. The choice of 6% in 1991 was a compromise solution at the end of a long and arcane debate among government economists and their academic advisers. The necessity for compromise, and the difficulty in reaching one, stemmed from a desire for a single number to be used to achieve two quite different ends.

On the one hand, government policy required the discount rate to equal the social opportunity cost of the capital invested by the public sector, i.e. the benefit that the same capital would yield if it were left in the hands of the private sector to consume or invest. If the discount rate were below the social opportunity cost of capital then at the margin public sector investments that looked worth doing would be squeezing out private expenditure that would have been even more beneficial. Thus it was argued that the discount rate for assessing the net present value of public sector investments needed to equal the pre-tax cost of capital for private investments with similar risk characteristics. In 1991 the Treasury considered 6% real to be the 'pre-tax long-term cost of capital for low risk purposes in the private sector' (Treasury, 1991, Annex G, para. 2). This was the rate to use when considering whether or not to undertake a public sector investment rather than leaving the money in the pockets of the private sector to spend on whatever it chose. Using this rate would 'prevent any bias in favour of public sector financing' (Spackman, 1991, para. 49). It should be noted that this low risk cost of capital is higher than the no risk cost of capital represented by, for example, the return to index linked government gilts. The Treasury (1997) reported the latter to be generally a little over 3% during 1996. At that time the Treasury considered the low risk cost of private capital to be around 5% rather than 6% but despite that left unchanged the recommended discount rate to be used by the NHS and the rest of the public sector (Treasury, 1997).

The same 6% real annual discount rate is also supposed to fulfil a second quite separate purpose. It is to be used when comparing the net present value costs of alternative ways of providing a given public service output, e.g. when comparing conventional versus PFI methods of procuring hospital services. The appropriate discount rate for this

purpose is referred to as the social rate of time preference. This is the rate that represents people's preference for consumption today over consumption in a year's time. Other things being equal a method of delivering a public service that requires payment later will be preferred by the population to one that requires the same payment but sooner. Estimating the magnitude of the social rate of time preference is difficult. Spackman, a senior Treasury economist involved in producing the 1991 version of the Treasury 'Green Book' (Treasury, 1991), argued that the social rate of time preference lay in the range of 4% to 6% per year (Spackman, 1991, para. 26). Reviewing the evidence a few years later, Pearce and Ulph (1995) argued that the 6% rate was 'well in excess of any reasonable and defensible discount rate. Our best estimate is 2.4% and a range of 2-4% probably sets the upper and lower bounds of what is a credible social discount rate'[23].

The selection of 6% as the discount rate for use in comparing alternative ways of delivering public services was thus a political and managerial compromise. A rate of at least 6% was deemed politically necessary to avoid any possible criticism of inappropriately diverting funds from private expenditure to public investment. It was also considered impractical to expect civil servants and public sector managers to use one rate when deciding whether to invest at all and another lower rate when deciding between different options for achieving the same end, including whether to choose conventional or PFI procurement:

> 'These two rates, for time preference rate and for cost of capital, are different concepts and under any realistic assumptions they will not be identical. However for almost all practical purposes a single number is set, which lies within the plausible range for both rates.' (Treasury, 1997, Appendix to Annex G, paragraph 2).

The logic and strength of this 'practical' argument are questionable, however. Furthermore, in the context of the NHS, which is not selling traded services in a commercial market, achieving a particular

23 Ulph re-affirmed this view as recently as 17 July 2000 when speaking on 'A social discount rate for the United Kingdom' at a seminar at the University of Bristol Centre for Market and Public Organisation.

rate of economic return has never been a criterion for determining whether or not to invest in a particular project.

There seems, therefore, to be good reason to compare PFI proposals against their public sector comparators using a discount rate equal to the social rate of time preference. As shown above, such a discount rate would undoubtedly be less than 6% per annum real and might even be as low as 2%. Given the difficulty of measuring the social rate of time preference, a compromise position between Spackman and Pearce and Ulph would be to discount at 4% per year.

If this were done, none of the 11 PFI hospital schemes reviewed by Boyle and Harrison (2000b) would appear to be value for money relative to their respective conventionally financed alternatives.

7.3 The costs of risks transferred

It is common practice in the private sector when evaluating prospective investments to include in the discount rate used for estimating their net present values a premium for the amount of risk and uncertainty surrounding expected future outcomes. The more uncertain the outcome the higher the discount rate used. But such an argument does not apply when the comparison is between the cost to the taxpayer of a PFI financed NHS hospital and that of an equivalent publicly financed hospital. Any risks borne by the taxpayer in the publicly financed option which are transferred to the private consortium and its financial backers in the PFI option should be explicitly identified, quantified and costed rather than being subsumed in a rule-of-thumb increase in the discount rate. This is a textbook economic principle.

The cost of the public sector comparator should include the expected value of any risks that are retained by the NHS in such an option but that would be transferred to the private sector under the terms of the proposed PFI deal. This is indeed what happens in practice. Section 6.3 discussed what these transferred risks might be. That the costs of these risks are included explicitly in the comparison, reinforces the argument presented in section 7.2 for reducing the discount rate used to the level of the unadjusted social rate of time preference.

Beyond that, however, there is some evidence that the costs of risks transferred from the NHS to the private sector have been exaggerated, so casting the PFI option in an unduly favourable light. As described in section 5.3 above, capital cost overruns on conventionally financed NHS construction projects averaged 7% in the late 1990s. Gaffney et al. (1999) report, however, that up to mid-1999 the evaluation of NHS PFI options:

> 'in most cases assumed that public sector projects overrun by 12.5% or more. In costing its public sector comparator, the Norfolk and Norwich Trust assumed overruns of 34%' (p. 119).

An assumed 17% construction cost overrun was added to the cost of the public sector comparator for the Cumberland Infirmary, Carlisle scheme. Using a 7% assumed overrun – i.e. average performance at that time on conventionally financed schemes – instead of 17% would have made the public sector comparator more cost-effective than the PFI option even at the 6% discount rate used (Price et al., 1999). Furthermore, Price et al. show that the present value cost of the public sector comparator in the Carlisle scheme was inflated by £7.2m to allow for risks of clinical cost saving targets being missed and for risks of costs arising from medical litigation. Neither of these risks is being taken on by the PFI consortium, however.

One final but very important observation needs to be made before closing this chapter. Economic evaluation of investment options is far from being an exact science. Estimates of future costs and benefits over 30 or more years are inevitably highly speculative. Any chosen number will turn out to be wrong. The purpose of the evaluation is simply to make a reasonable choice; one which is likely to avoid a gross waste of resources. If the choice of preferred option really is so finely balanced that it depends on whether the discount rate is 5% per year or 6%, or on whether estimates of capital cost overruns are a few per cent higher or lower, then for practical purposes the two options can be considered to cost the same. Such small differences are well within the margins of error. In prospect, whichever option is pursued, no great saving will be achieved nor any great waste incurred relative to the alternative. The decision should then rest solely on whether there are any significant differences in the non-financial benefits yielded by the different options.

8 CONCLUSIONS

8.1 PFI in the NHS: net benefit or cost?

The PFI has been a remarkably durable policy initiative, straddling a change of government from Conservative to Labour and continuing despite a long, practically barren, initiation period between 1992 and 1997. The PFI is now firmly established in many parts of the public sector including roads, prisons, schools, central and local government services, as well as the NHS. It is the government's preferred way of procuring capital assets for the public sector: to bundle them together with long-term contracts to provide supporting services and the initial financing of the capital investment. Large amounts of managerial and political effort have been committed to implementing the policy, especially in the NHS.

The debate about the PFI in the NHS has become simplistic and polarised. The reality is more complex. The PFI has taught the NHS, and other parts of the public sector, some important lessons. The process of negotiating PFI contracts has highlighted the need for NHS managers to think carefully about the outcomes they require, rather than the inputs they think they need, and to take full account of all the risks that a project involves. Explicit estimation of risks, their scale and likelihood of occurrence, permits proper management of them, including designing the project so that it will maximise its benefits net of costs over its entire lifetime. Lower construction costs in the first couple of years of the project are no advantage if they are outweighed by higher maintenance costs later. PFI schemes are also making clear the virtue of not varying the requirements of a project once it has commenced. The result is delivery on time, although the downside is the loss of benefit that the desired but ruled-out changes to the initial design could have brought.

Once learned, the lessons taught by the PFI can also be applied to Exchequer financed schemes, however. It is time to allow NHS Trusts that option and to refute the impression pervading the NHS that the PFI is the only choice allowed.

The description and evaluation set out in this book have demonstrated that compared with well-managed Exchequer financed procurement, the PFI:

- may or may not offer design improvements and lower construction costs;
- probably does not lead to more cost-effective support services;
- does not increase the realised value of surplus asset disposals;
- may involve higher costs of borrowing, even after accounting properly for risk; but
- will probably lead to more projects being completed on time; and
- will probably yield better maintained hospitals.

In aggregate, the claimed cost advantages of NHS PFI schemes relative to their public sector comparators appear to be small. Furthermore, they could disappear were the discount rate used to calculate the net present value costs of the different options to be reduced from 6% p.a. to a more appropriate, risk free, level of 4%. Of course, these net present value calculations can never be precise and they may fail to take full account of possible qualitative differences between a privately financed scheme and an Exchequer financed alternative. The message from these calculations is therefore not that the PFI will save or cost a few million pounds extra in total over the next 30 years on a hospital that will cost of the order of £100 million to build and tens of millions of pounds every year to run. Rather, the real implication is that there is no significant difference between the options.

The PFI has attracted a good deal of adverse comment, especially in the context of the NHS. This has come not only from academic analysts of the policy, journalists, the Association of Community Health Councils of England and Wales, trade unions and organisations representing health care professionals (including the British Medical Association) but also, when speaking off the record, from some senior NHS staff. From the position of the critics, it is unclear what was the problem in the NHS that the PFI was supposed to solve. They had seen conventional procurement of capital assets already become reasonably efficient, apart from one or two high profile exceptions. Competitive tendering of non-clinical services had long been in place and the easy hits had already been made, leading to concerns that quality was being sacrificed too much in order to save money. Exclusion of clinical services from competitive tendering, although they comprise the majority of health service running costs, ruled out

the opportunity to search for uncaptured efficiencies there. To this absence of clear motive for the PFI from the perspective of the NHS was added frustration at the additional costs in management time and consultancy and legal fees that it brought. Furthermore, the existence of a budget cap on the capital value of NHS Exchequer funded investment but not of PFI investment appears to rule out projects no matter how worthwhile they might seem unless they can be PFI funded. It is unsurprising if such pressure to implement the PFI, coupled with a lack of obvious benefit to the NHS, has led to some resentment.

Given the government's current tests of fiscal prudence, there appears to be no macroeconomic justification for preferring PFI to Exchequer financing, or for regarding one approach as any more affordable than the other. The choice between PFI and conventional funding of NHS investments should be based on microeconomic analysis and management judgement of the balance of cost and benefit in each case. To aid that, better evidence about the relative costs and benefits of the PFI needs to be collected, validated and published. Continued pressure on NHS managers to pursue the PFI could prevent or delay the implementation of new forms of conventionally financed procurement which might yield the benefits of PFI – more timely construction, better maintenance of assets over their lifetimes – while avoiding the additional costs. The form that such 'enhanced' conventional procurement might take is suggested in the next section.

8.2 Implications for future policy and practice

The PFI process itself has gradually been refined over time. It is to be hoped that as a result of these refinements (for example the recent propagation of a standard form of PFI hospital contract) transaction costs and other PFI-inherent costs are being reduced. A particular area to which further attention needs to be given, however, is minimising the negotiating period between the selection of its preferred bidder by an NHS Trust and financial closure of the PFI deal, and monitoring these negotiations more effectively to deter abuses. As explained in section 6.4, this period is an opportunity for rent taking by the PFI consortium, as competitors are then no longer a threat.

In the long term the new NHS Concordat with the independent health care provider sector may start to break the taboo about private provision of NHS clinical services. If it does, there will be interesting times ahead as the independent sector starts to assert itself and compete to provide these services to the NHS, and as health care professional groups and the general public react to this. It is unclear what the net result of such iconoclasm would be for the efficiency and equity of publicly funded health care.

Whatever the developments in respect of private provision of clinical services to the NHS, gains could be achieved by learning the lessons of PFI procurement and applying them in conventionally financed projects. In other words, let us try taking the 'F' out of 'PFI' and 'DBFO'. Let us drop the requirement for private finance but keep the private initiative: public-private partnership without private capital. This takes private banks out of the equation but leaves the private architects, engineers, builders, equipment and service suppliers in.

Arguably the disciplines of PFI-based procurement have forced the NHS to take risk management more seriously. This appears most likely to have benefits in improving the maintenance of assets and in minimising overruns on construction cost and time. As discussed in section 6.3, conventional procurement contracts can be written with the same incentives for avoidance of construction cost and time overruns as are contained in PFI contracts. That leaves maintenance.

As discussed in Chapter 6, hospitals built and equipped under the PFI may be better looked after in the long term than conventionally financed hospitals. This stems from two factors:

- first, that the same private consortium that designs and builds the facility is also responsible for maintaining it through the next 30 or so years of its life. This discourages corner cutting in the initial design and construction if that will provoke increased maintenance costs later; and
- second, that the NHS is forced to ring-fence the funds to pay the private consortium as it is bound by contract to make those payments. With conventionally financed hospitals, history shows that funds intended for maintenance are often diverted to alternative purposes. Shabby hospitals, and worse, are the result.

But if newly built PFI hospitals can be guaranteed a better maintained lifetime by signing a long-term DBO contract with a private company so too can new hospitals whose construction is Exchequer financed.

It should also be possible to negotiate a maintenance contract for an existing hospital just as it is for a new hospital. The major additional problem that existing assets bring a potential contractor, relative to newly constructed assets, is the possibility of latent defects, i.e. problems not apparent now but which will emerge later, with consequences for the level of maintenance and repair costs required. Such problems are reduced if the contractor responsible for future maintenance has also designed and built the hospital, but they should not be insurmountable in any case. As anyone who has bought a house knows, latent defects can indeed be a problem, and houses are rather simpler assets than hospitals. But house purchasers also know how to reduce this problem to acceptable proportions: they commission a structural (and where appropriate, engineering) survey prior to agreeing whether to purchase and at what price. A corresponding survey should equally be capable of facilitating maintenance contracts for existing NHS hospitals.

Both DBO contracts for new hospitals and long-term maintenance contracts for existing hospitals, seem to be options worth pursuing, at least to the extent of piloting and evaluating them.

NHS managers need to be given a genuine opportunity to follow an Exchequer financed procurement route where it shows promise, without being pressurised and constrained to do otherwise. There is now sufficient experience of the PFI in the NHS for managers to be allowed to make an unfettered appraisal of conventional versus PFI options when planning capital investment. Tenders can be sought to design, build and operate hospitals on a 30-year basis with and without private sector provision of the initial capital investment funds as part of the package. In effect the public sector comparator appraised alongside the PFI option should be a DBO scheme. The best way of assuring value for money is then to make conventional financing a genuine option – and for whole schemes not just 'Phase 1s'. This requires that:

- the bias against Exchequer financed investment caused by the existence of a separate capped budget for Exchequer funded, but not PFI funded, capital expenditure in the NHS is removed. It must be made clear that funds are as readily available for worthwhile conventionally financed schemes as they are for PFI projects;
- the criteria by which capital schemes are approved or rejected by the UK health departments and the Treasury are made clear and are published. These criteria should be applied equally to conventional and PFI schemes, and the reasoning behind the approval or rejection decisions for individual schemes should be published;
- a more appropriate, lower, discount rate should be used for comparing equivalent conventionally and PFI financed options. I suggest a 4% real annual discount rate rather than 6% (see Chapter 7).

Applying to conventional procurement the lessons learnt from the PFI about concentrating on outcomes and explicitly managing risks, including maintenance risks, could produce an improved, DBO, form of Exchequer financed procurement. This could yield valuable long term public-private partnerships in the NHS but ones free of the extra costs associated with private financing. PFI procurement should continue to be an option, but not an artificially promoted and protected one as it is now. Fair comparison of all options, including best practice Exchequer financed procurement, will lead to the most beneficial results all round.

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APPENDIX A
ACCOUNTING FOR PFI ASSETS

Exchequer financed government investment in an asset, such as the construction of a £90 million NHS hospital, simply shows in the government's accounts as expenditure in the year in which it is incurred. The value of the asset would simultaneously be entered onto the government's balance sheet. For example, if the capital cost of building the hospital were spread evenly over three fiscal years, government spending would be increased by £30 million in each of years 1, 2 and 3 and nothing thereafter apart from the costs of operating and maintaining the asset. Once built, the total value of the asset would appear on the government's balance sheet.

If, however, procurement of the same public asset were to be financed in the first instance by private borrowing, such as in the case of the PFI, then the question arises when and by how much government expenditure should be recorded as being incurred. One option might be to record expenditure as and when the NHS makes payments to the private sector. Thus if with PFI the NHS pays nothing until the hospital is built but then pays an annuity of £7 million per year in respect of the cost of the asset to a private consortium for 30 years, then government expenditure would be nothing in years 1-3 followed by £7 million each year from years 4-33. If this were allowed the government would appear in years 1-3 to be gaining an expensive new hospital for the NHS without increasing expenditure. The pay-off would, however, inevitably follow with increased public spending in years 4-33.

The honesty of such an accounting practice would be dubious. After all the same asset is being built in each case for the same (public) purpose and it is taxpayers who will eventually have to pay for it either way. The PFI approach simply delays and spreads out the expenditure relative to the conventional Exchequer financed approach but equally creates an unavoidable liability for the public purse.

The Accounting Standards Board offered its view on how PFI procured assets should be accounted for in its *Amendment to FRS 5 'Reporting the Substance of Transactions': Private Finance Initiative and Similar Contracts,* of September 1998. The first stage of the accounting analysis is to determine whether any parts of the total PFI contract are separable. If they are, then they are to be looked at separately.

Thus if it is possible to identify that part of the stream of annual payments made to a PFI consortium which is for the provision of an asset or assets (e.g. hospital buildings, plant and equipment) then it should be capitalised and the capitalised value entered as expenditure in year 1. The capitalised value of the asset would then go on the NHS and hence the government's balance sheet. PFI deals are carefully phrased, so that a single 'unitary payment' is made by the NHS to the private consortium each year, specifically to avoid separation out of the capital element. The Treasury's guidance states 'there should be a single Unitary Charge for the Service which is not made up of separate independent elements relating to availability or performance' (Treasury Taskforce Private Finance, 2000b, p. I 75).

But this is not the end of the matter. PFI purchased assets cannot be kept off the government's balance sheet (and hence put on the private consortium's balance sheet) simply by the choice of name given to the payments made by the NHS Trust to the PFI consortium. Even if the acquisition of the asset is deemed to be inextricably intertwined with the provision of services (cleaning, catering, etc.), the question remains whether the NHS or the private consortium records the asset on its balance sheet, and hence whether or not the government has to show the value of the capital costs as public expenditure up-front. The Accounting Standards Board takes the view that whether a party has to take an asset on its balance sheet depends on whether it has access to the benefits of the asset and exposure to the associated risks (this is nothing to do with any risks associated with providing services). HM Treasury's guidance formally takes exactly the same line (Treasury Taskforce Private Finance, 1999). However, the attribution of risks is a subtle question, as explained in Chapter 6 above. Neither the Treasury guidance nor the current *NHS Trusts Capital Accounting Manual* provides clear-cut rules for determining the on/off balance sheet question (NHS Executive, 2000). The NHS Executive's current good practice guidance on the PFI states: 'Schemes will normally be expected to be able to demonstrate that they will not be on an NHS Trust's balance sheet' (NHS Executive, 1999, para. 4.3).

This leads to a circular argument: a PFI hospital can only be off the government's balance sheet if the risks associated with the asset are

not predominantly borne by the NHS; but such risk transfer is also necessary for the PFI hospital to be value for money; thus if the PFI hospital is judged to be value for money (i.e. the net present value cost after risk is lower than for the public sector comparator) then it must have transferred enough risk to the private sector; so it should be off the government's balance sheet. But this just makes approval of a PFI scheme synonymous with then not putting it on the government's balance sheet. The same reasoning can clearly be used to make the reverse argument: if the PFI option is not actually value for money, because it has not transferred enough risk to the private sector, it should be on the government's balance sheet. The off or on balance sheet question is simply being reduced to the question whether the PFI option is more or less cost-effective than the public sector comparator.

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