International Handbook on Public–Private Partnerships

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14 The UK's Private Finance Initiative: history, evaluation, prospects

Mark Hellowell

Introduction

The Private Finance Initiative (PFI), under which groups of private companies finance the design, building and maintenance of new economic and social infrastructure, is the dominant method of large-scale public investment in the UK. As of April 2009, contracts for 641 PFI projects had been signed between public authorities and private sector consortia, with a nominal capital value[1] to the public sector of £63.8 billion (HM Treasury, 2009a). Privately financed projects have been commissioned by every department of state and operate in most areas of public service, with transport, healthcare, defence, education and waste management among the most important sectors. This chapter provides an account of the PFI's political and economic origins, a description of the policy's size, scope and significance within overall public capital investment, a review of the evidence on the PFI's cost-efficiency (or 'value for money'), and an analysis of the policy's medium-term prospects.

Politico-economic origins – from New Right to Third Way?

The PFI was introduced by John Major's Conservative government in the autumn budget statement of 1992. This began a five-year process of legal and bureaucratic reforms intended to promote the use, by the public sector, of the design, build, finance, operate (DBFO) model for the delivery of capital investment projects. Underpinning the government's move was a mix of philosophical, financial and political considerations that combined to make PFI an attractive policy. Philosophically, it suited the party's neoliberal agenda, providing a means of growing the private sector's role in parts of the public sector where outright privatization was regarded as unachievable (Hellowell, 2003).

Financially, the PFI allowed public capital spending to bypass the public sector borrowing requirement (PSBR), and thereby provide the impression of prudent fiscal management, an important matter in the wake of the Maastricht Treaty of 1992. Politically, it meant that the voters could be provided with new roads, prisons and hospitals today without the related investment having an immediate budgetary impact. Public sector

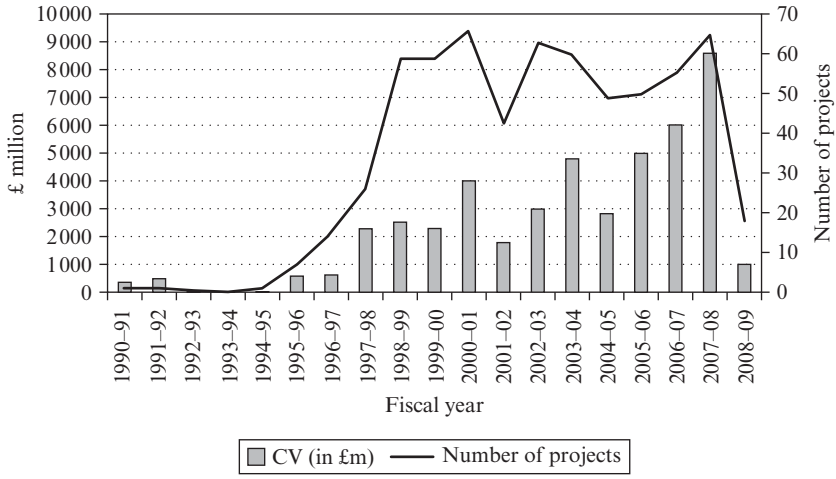
net investment was projected by the Conservatives to fall from 1.6 per cent of GDP to 0.75 per cent of GDP by 2001 (Clark et al., 2001). In effect, the PFI was designed as a substitute for orthodox capital expenditure, releasing money in the short term for recurrent expenditure.

After some initial hostility while in opposition, the Labour Party embraced the concept of private finance in 1994, under the leadership of John Smith – before the formal arrival of New Labour under Tony Blair. That year, three senior Labour spokesmen – Gordon Brown (subsequently chancellor and later prime minister), Robin Cook and John Prescott – published 'Financing infrastructure investment: promoting a partnership between public and private finance' (Brown et al., 1994), which outlined Labour's distinctive approach to the PFI. From an ideological perspective, the paper had a distinctly Keynesian flavour, linking the use of private finance with job creation. In media briefings accompanying the launch of the paper, John Prescott claimed that 'private finance will help put people back to work' (*The Observer*, 1994, p. 1).

From a financial point of view, there was a clear focus on the ability of PFI to facilitate additional (rather than substitutional) public investment, by virtue of its ability to hide expenditure from calculations of the UK's national debt. The paper suggests that the Conservative government's decision to use private finance for public service projects only where it could deliver savings over conventional procurement was no more than 'an excuse for refusal', since public finance would always provide a lower cost (*The Observer*, 1994, p. 14). It proposed that the key test should, instead, be between the cost of private finance and the overall welfare cost (in terms of social, environmental and economic losses) of not undertaking the project.

'Financing infrastructure investment' was also a highly political document – in two respects. Undoubtedly, the document was an attempt to 'steal a march on the Conservatives', as Gordon Brown put it in briefings with the press, by suggesting a major expansion of one of the government's flagship policies (*The Observer*, 1994, p. 1). More significantly, however, the paper was a seminal moment in Labour's attempt to develop a new relationship with private industry, and in particular those elements that, historically, had been hostile to Labour – notably, the financial institutions of the City of London and their advisers.

In the critique of Conservative policy, the document makes extensive use of the private sector's own reports. It quotes the management consultancy Ernst & Young and the Royal Bank of Scotland in criticizing the government's unwillingness to intervene in PFI to ensure its implementation (the Conservatives had preferred a 'hands-off' approach, consistent with their view that investment decisions ought to be made by the market and not by government). Shortly after the report's launch, Labour leader



Note: To better reflect the growth trend of the 'mainstream' PFI programme, the three London Underground PPP contracts (with an overall capital value £17.6 billion) are omitted from the graph.

Source: HM Treasury (2009b).

Figure 14.1 Signed PFI projects (n = 638) and their capital value (in £m) per fiscal year (1990/91–2008/09)

John Smith joined key banking figures and the Conservative Treasury's head of private finance, Alistair Morton, for a conference on PFI at Mansion House in the City of London. This was billed by *The Times* as 'proving the [Labour] party's allegiance to British industry and commerce' (Leathley, 1994).

In his 1995 budget the Conservative chancellor, Kenneth Clarke, responded to the Labour Party challenge and the views of UK industry with a much more interventionist approach to the PFI. He announced a relaunch of the PFI with a £9.4 billion list of 'priority' projects – a tacit admission, perhaps, that the PFI could not progress in the absence of government stewardship. As Figure 14.1 shows, this period was the key breaking point in the PFI's development. Before this, it was a high-profile but dysfunctional policy idea; after this, it became an effective financing mechanism. Just three large contracts – all toll roads – were signed between April 1990 and April 1995. Between April 1995 and Labour's election in May 1997, 24 major deals were signed, with a combined capital value of some £1.25 billion.

In the first few years of the Labour government, the pace of contract

closures rapidly increased, with 28 schemes with a combined capital value of £2.3 billion reaching contract close in 1997–98 and 59 schemes, with a value of £2.4 billion, being signed in 1998–99.

The PFI under the Labour government

For the incoming Labour government of Tony Blair, who had led the party from July 1994 and rebranded it 'New' Labour, PFI was held to provide a number of financial and political benefits. On the economic front, PFI had the crucial advantage that borrowing undertaken through it did not score against the main calculations of national debt. So long as schemes were recorded as off balance sheet, borrowing through PFI was invisible to the fiscal measure used to determine convergence with the Maastricht criteria. In addition, regardless of balance-sheet treatment, borrowing through PFI did not (and still does not) score against public sector net debt (PSND).[2]

In this way, PFI offered Labour the same advantage as it had offered the Conservatives, in providing a superficial relaxation of the UK government's borrowing constraint (superficial since, as Heald and Geaughan, 1997, note, the effect of using the PFI is to alter the timing of the debt principal and interest payments associated with the borrowing, not their magnitude).

However, for Labour, this fiscal advantage probably had even greater salience. In particular, there was a strong incentive to minimize PSND, as this was the aggregate against which the government's 'sustainable investment rule' was based. This rule, which stipulated that the PSND should not exceed 40 per cent of GDP, was a key measure of New Labour's competence and control over the public finances (Gosling, 2003). The party's use of PFI also provided a bridge between it and parts of the business community, in particular the City of London. Under the Conservatives, there had already been a significant injection of private sector personnel into the central government bureaucracy in order to deal with the implementational challenges of the PFI. Under Labour, this process was enhanced.

Initially, a PFI Treasury Taskforce was established, with a policy arm staffed by civil servants and a projects arm staffed by private sector practitioners. This latter component of the taskforce was in 1999 reconstituted as a limited company, Partnerships UK (PUK) and, in the following year, 51 per cent of the firm was sold to a selection of private companies – all of them large players in the PFI programme – for £45 million. Thus PUK became a joint venture whose majority owners were financiers and active players in the PFI industry (see Table 14.1 for current shareholders). Its staff, including chief executive James Stewart, a former head of project finance at equity group Newport Capital, were drawn from financial

Table 14.1 Current private sector shareholders (and shareholding) of Partnerships, UK

Shareholders	Share (%)
The Bank of Scotland	8.8
The Prudential Assurance Company	8.8
Santander	6.7
Sun Life Assurance Society	6.7
The British Land Company	2.2
Barclays	6.1
The Royal Bank of Scotland	6.1
Serco	3.3
Global Solutions Limited	2.2
Total	51

institutions and management consultancies. While, in theory, PUK's role was in implementation, as opposed to policy, in practice, the line between these elements has become blurred over time.

PUK derives much of its income from fees, paid by public authorities and the Treasury for the delivery of projects. But the firm also writes the government-wide *Standard PFI Contracts*, manages taskforces on refinancing and post-contractual issues, and provides staff on secondment to assist in setting up new initiatives and agencies. Agencies owned by PUK designed, developed and manage the Local Improvement Finance Trust (LIFT) programme – under which public–private joint ventures deliver new primary healthcare facilities – and the Building Schools for the Future programme, which channels several billion pounds a year into England's secondary education estate, mostly through PFI contracts.

PUK has, in other words, became an extremely important part of the policy-making nexus in Whitehall under New Labour. The Treasury's private finance unit, which has 44 per cent of PUK shares, is also largely staffed by private sector individuals, and has been led by a succession of prominent private sector individuals on secondment, namely Geoffrey Spence from Deutsche Bank (now head of global infrastructure at HSBC), and two senior managers from PricewaterhouseCoopers, Richard Abadie and the current (2010) incumbent Charles Lloyd.

The influx of private sector individuals into the core of Labour's PFI policy-making network undoubtedly transformed the party's relations with certain parts of private industry.[3] The Treasury in particular, under Chancellor of the Exchequer Gordon Brown, regarded the promotion of PFI across the UK public sector and internationally as a

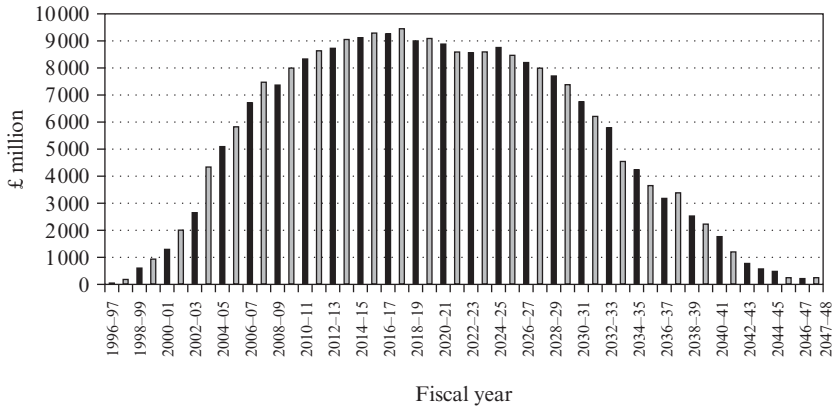
means of cementing relations with the City of London. In a speech to the Confederation of British Industry in May 2003, Gordon Brown stated that the government would use its influence to expand PFI in the EU, as part of a broader push to open up the markets of the continent (Brown, 2003). PUK provided support for PPP programmes being designed by governments around the world, including those of the Czech Republic, Mexico and South Africa. The technical procedures and guidance for public authorities in these countries are strongly based on those of the UK, facilitating market entry by UK banks and other businesses.

PFI and New Labour's 'Third Way'

It has been claimed that PFI is 'the cornerstone of the government's modernizing agenda for key public services' (Shaoul et al., 2007, p. 480). Indeed, many of the policy's characteristics are underpinned by the prescriptions of new public management (NPM), such as the contracting out of services, the use of performance indicators and the creation of economic incentives – elements that underpin many other examples of public sector reforms undertaken by New Labour (Broadbent and Laughlin, 2005). But PFI is also something of an anomaly. Perhaps the seminal document in describing the 'Third-Way' approach to public service reform, *Reforming our Public Services: Principles into Practice* (Office of Public Service Reform (OPSR), 2002), prescribes a more orthodox NPM approach, with the role of government reduced to standards-setting and contract-writing; with delivery of services undertaken by a diverse array of providers operating in a market defined by consumer choice.

Since 2003, a number of policies and programmes have been established on this model, key examples being Foundation Hospitals (quasi-independent NHS organizations with the power to raise finance directly), Independent Sector Treatment Centres (ISTCs) (private clinics operating in competition with local NHS units for the delivery of elective healthcare); and the Academies programme in secondary education (privately sponsored schools operating free from local authority control). The PFI is clearly distinct from this broader marketization and choice agenda – the structure involves, for example, no direct interface between the private provider and the ultimate consumer.

Indeed, from 2005, ministers and officials regularly briefed against the PFI, which some began to see as a barrier to more wide-ranging private sector involvement. In June 2005, Julian Le Grand, adviser to Tony Blair and a longstanding advocate for the introduction of markets and choice in public services delivery, told journalists that PFI had proved an 'expensive waste' (Davoudi and Timmins, 2005). The following month, Bob Ricketts, an official in charge of the health department's ISTC programme, argued



Source: HM Treasury (2009b).

Figure 14.2 Unitary charge payments for fiscal years 1996/97–2047/48 (in £m)

that PFI for hospitals had produced unnecessary 'white elephants', as opposed to flexible healthcare. The NHS needed 'a fundamental rethink about how much [it] invest[s] in capital, rather than human resources', he reportedly said (Timmins, 2005).

On taking office in May 1997, Labour rebranded PFI as a 'public private partnership' – and it was under this 'third way' title that the policy was exported around the world. But to see PFI as a core component of Third-Way ideology is probably a misinterpretation. The use of PFI did help New Labour to build a relationship with the City of London. It did help the chancellor, Gordon Brown, to cement this relationship through the policy's promotion internationally. But it is likely that Labour's consistent (and continuing) support for PFI is, in large part, due to its ability to deliver investment today without that investment affecting today's public finance statistics. This is an advantage that has appealed to Conservative and Labour governments alike, just as it has proved irresistible to governments around the world.

The PFI programme: size, scope and significance

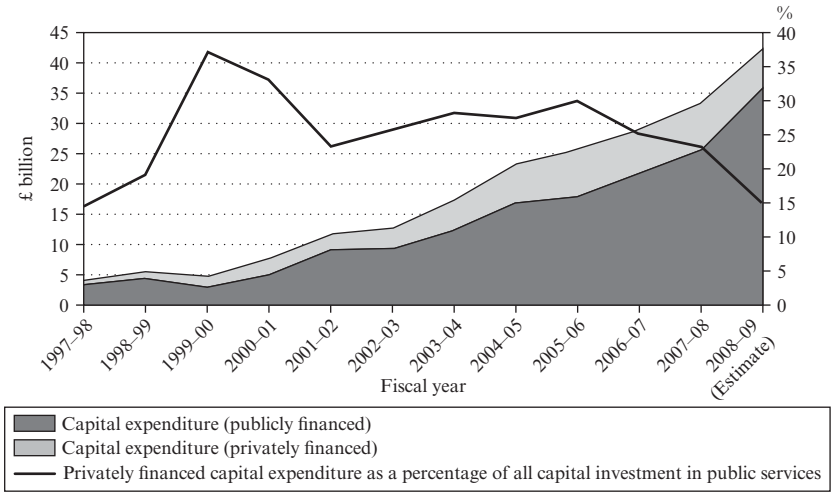
As of April 2009, contracts for 641 PFI projects had been signed between public authorities and private sector consortia, with a total nominal cost to the public sector of some £273.8 billion over the full length of these contracts (see Figure 14.2). The annual cash cost of PFI contracts signed as of April 2009 will reach a peak of £9.5 billion in the fiscal year 2017–18, and

Table 14.2 Number and capital value of projects signed by UK government departments

Government department	Capital value (£m)	Number of projects
Cabinet Office	342.00	2
Crown Prosecution Service	19.80	1
Department for Business, Enterprise and Regulation	38.33	2
Department for Children, Schools and Families	5284.42	124
Department for Communities and Local Government	1979.65	60
Department for Culture, Media and Sport	238.41	14
Department for Environment, Food and Rural Affairs	1974.09	21
Department for Innovation, Universities and Skills	22.00	1
Department for Transport	22747.25	50
Department for Work and Pensions	1138.31	4
Department of Health	10898.39	102
Foreign and Commonwealth Office	91.00	2
HM Revenue and Customs	840.00	8
HM Treasury	141.00	1
Home Office	799.53	25
Ministry of Defence	8725.33	49
Ministry of Justice	696.60	26
Northern Ireland Executive	1360.62	33
Scottish Government	5926.12	92
Welsh Assembly Government	541.81	24
Total	63804.65	641

tail off thereafter. However, these figures will of course increase as more contracts are signed.

By capital value, the transport sector has been by far the largest recipient of PFI contracts in the UK, with some £22.7 billion of investment so far committed (see Table 14.2). However, £16 billion of this relates to the three PPP contracts for the London Underground metro system which, when combined, probably constitutes the largest PPP infrastructure scheme in the world. Much of the remaining £5 billion is accounted for by investment in large strategic infrastructure such as motorways, in addition to a smaller programme of light rail schemes.

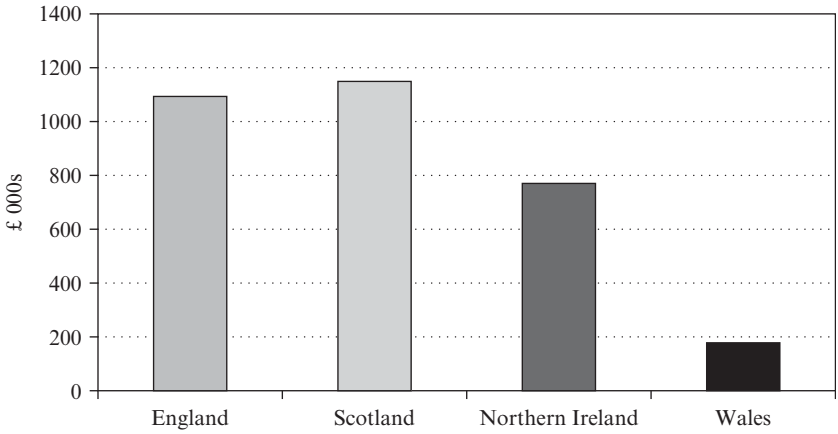


Source: HM Treasury (1997–2009).

Figure 14.3 Total capital investment in the UK public sector (1997–2009)

Defence has also been an important sector, with PFI projects in operation in all three armed services (the Royal Air Force, the Royal Navy and the Army). The UK government has utilized PFI to deliver a diverse array of defence equipment, training services and accommodation, including a £430 million refurbishment of the Ministry of Defence Headquarters in London, the design, development and management of a £2.7 billion airborne refuelling aircraft and the launch of a £1.08 billion 'Skynet' military satellite system. However, private finance has not to date been used for front-line equipment and services (largely due to opposition to this from the armed forces themselves), which limits the potential scale of this programme.

Since 1997, private financing has constituted between 15 per cent and 37 per cent of annual capital expenditure in the UK's public sector (see Figure 14.3). However, this understates the prevalence of PFI in certain parts of the public sector. In healthcare and education, for example, it has been the overwhelmingly dominant form of procurement for new infrastructure. Contracts for 127 hospital projects were signed between May 1997 and May 2009, and of these some 97 came through PFI. Private finance accounts for around 90 per cent of the £11.64 billion committed under the programme (Department of Health, 2009). While it is likely that the hospital-building programme is now drawing to a close, with just one project (a £475 million scheme for the North Bristol hospital) in



Sources: HM Treasury (2009b) and Office for National Statistics (2007).

Figure 14.4 Capital value of signed PFI schemes per capita, by country

procurement, increased private financing in sectors such as waste management and social housing are expected to offset this (HM Treasury, 2009d).

The use of private finance by the devolved administrations (the Scottish government, the Northern Ireland executive and the Welsh Assembly government) has varied significantly. Until 2007, the Scottish government was the world's most enthusiastic consumer of PFI projects, with higher per capita expenditure through PFI than any other country (see Figure 14.4). This has changed since May 2007, when the Scottish Nationalist Party took power from the previous Labour–Liberal Democrat administration. The SNP came to power with a manifesto commitment to abolish the PFI and replace it with a 'Scottish Futures Trust', which would fund projects through 'bonds and other appropriate commercial financial instruments at rates which will be cheaper than PFI' (Scottish National Party, 2007, p. 9).

However, once in power, the SNP downgraded the role of the Futures Trust from a financing mechanism to that of a simple advisory organization (Scottish Government, 2008), which will deliver programmes of conventional and privately financed contracts. Between May 2007 and April 2009, nine schemes with a combined capital value of £1.06 billion have been signed, although the scale of PFI in Scotland has reduced since the SNP took power: there are just nine private financed schemes in development in Scotland (Hellowell and Pollock, 2009).

In contrast, the devolved administrations of Northern Ireland and

Wales have used PFI to a relatively minor extent in the past and are now planning significant expansion. As of April 2009, there were 33 signed PFI contracts in Northern Ireland, with a combined capital value of £1.36 billion. The relatively small number of PFI contracts in Northern Ireland is a reflection of political instability in the years since the Good Friday Agreement, and is despite an impressive level of political support for the policy among domestic political parties and the London-based Northern Ireland Office. With devolution restored in 2006, followed by three years of relative stability, the PFI programme is expected to grow. As of April 2009, there were 12 contracts in procurement and it is projected that this will increase the capital value of PFI projects to some £3.22 billion by the final quarter of 2011–12 (Northern Ireland Executive, 2008).

In Wales, the relative absence of significant PFI investment (just 24 schemes have been signed as of April 2009, with a combined capital value of £541.8 million) is the result of a conscious attempt by the devolved Labour-led administration to establish 'clear red water' between it and the New Labour administration in Westminster, signifying a more traditional socialist or social democratic approach to public policy, and, in particular, a rejection of private sector involvement in public services (Reynolds, 2008). However, in the absence of significant capital funding from the London government, the result of the Welsh approach has been a lower rate of capital expenditure than in any other part of the UK. In an apparent U-turn, the assembly government has now said that it will consider adopting a PFI programme in all sectors with the exception of healthcare, and it intends to reopen the PPP unit that was closed down in 2004 (Davies, 2008).

Evaluation

As noted by the World Bank (2007), lower public debt associated with the use of private finance is an artefact of governments' standards for financial reporting. In a standard PFI contract, payments do not depend on the government's subsequent demand for the services: so long as the private partner has properly constructed and maintained the facilities, the government must pay. While the government's obligations to make these payments may not entail an accounting liability, they do entail an economic liability: all the debt will be repaid by the public sector along with interest and returns for promoters. The primary economic impact of the switch from public to private finance is to alter the timing of payments, not their magnitude, which will be greater unless PFI can provide greater cost-efficiency – that is, provide a given outcome at a lower cost than the available alternatives.

The cost-efficiency of PFI relative to other forms of procurement and

financing is therefore the central evaluative question facing this policy. While there is a substantial literature on the operation of PFI in the UK, in terms of both parliamentary audit and conventional academic research, this work has not yet provided a conclusive answer to the cost-efficiency question. This section provides a detailed description of the PFI model and a plausible framework for evaluation. Findings from the available empirical literature are evaluated according to this framework, and some tentative conclusions are drawn.

The PFI model in detail

The scope of services involved in the operational component of a PFI varies between different sectors and projects. While in a typical prison PFI the private sector consortium delivers all 'core' services, including prison management and the employment of security staff, in other sectors the role of the private sector is restricted to facilities management and the delivery of certain 'ancillary' functions. For example, in a typical PFI hospital, the private sector will maintain the building and manage the catering, cleaning, portering and laundry services, but clinical care remains the responsibility of the public healthcare authority.

In return for the capital investment committed by the private sector, along with its management of the construction process, maintenance and services, the public authority pays to the private sector an annual unitary charge, which is in large part fixed so long as performance is satisfactory. This model results in the transfer to the consortium of project-specific risks, such as those associated with design, construction and life-cycle operation, and certain market risks, such as the risk of unexpected inflation or economic recession.

A PFI consortium will generally involve a mixture of 'operational' investors such as construction companies and facilities management firms, and 'financial' investors such as equity institutions and the investment arms of major banks. On signing the contract for the project, the consortium will form a 'special purpose vehicle' (SPV)[4] – a legal entity established with the specific purpose of delivering the project in accordance with the agreed contract. Execution of the contracted activity requires the involvement of a number of parties. The SPV will enter into subcontracts with one or more organizations (usually the operational investors mentioned above) to deliver the project. The SPV also raises 'pure' equity and subordinated debt (loans) from its member companies; and senior debt from banks and/or the financial markets. Senior debt, which has the first call on project resources in the event of a reduction in cash flow or contract termination, typically provides around 90 per cent of the finance required to complete the capital investment of the project, with the higher-risk forms of risk

finance – subordinated debt and equity – providing 9 per cent and 1 per cent respectively.

The price offered by the private sector will comprise a number of known input costs, such as transaction costs, and a larger number of projected costs, such as those relating to capital expenditure and operating expenses; and projections of the cash flows to the project investors – from which the internal rate of return (IRR) on all the various sources of private capital employed can be calculated.[5] For the DBFO model to deliver greater cost-efficiency than the alternatives (for example, design–build–operate contracting), the presence of the 'F' component must result in greater cost-efficiency – either on its own account through lower finance costs, or through its ability to improve the efficiency with which the operational components of the project are delivered. In evaluating PFI's cost-efficiency, it is therefore useful to separate out the financial and operational elements of the model.

The relative cost of public and private finance

The relative cost of public and private finance is an issue that has long exercised financial economists. It is clear that government gilts will typically provide the lowest yield in the market, and is therefore in cash terms the cheapest available source of money for governments. However, in the 'perfect capital markets' (PCM) view, this apparent advantage is the result of certain costs being hidden. Klein (1997), for example, states that public borrowing appears cheaper than private only because the government is able to coerce future taxpayers into meeting the cost of downside risks should they materialize. The view that there is no economic benefit to public finance has been held by the UK Treasury since the introduction of PFI. For example, in a 2003 policy document, it argues that

> A great part of the difference between the cost of public and private finance is caused by a different approach to evaluating risk. Typically, the private sector takes account of risk by discounting future cash flow at a higher rate. A risk premium is therefore made explicit in the private sector cost of capital, and the level of return on capital is *competitively determined according to the risks assessed in the project* . . . (Klein, 1997, p. 41; emphasis added)

The PCM argument is that, so long as there is competition between suppliers, a near-enough PCM will ensure that the finance cost implied by the terms of the PFI deal necessarily represents the true cost of the risks involved in the project. As mentioned above, if public finance is available at a lower cost, this is not economically beneficial; rather, it is simply that the risk associated with the project has been transferred to current and future taxpayers, who will have to meet the expense of any downside risks that materialize.[6]

To understand this point it is necessary to explore the means by which private financiers are assumed, in the PCM approach, to value their investments. Textbook corporate finance theory dictates that project-specific or 'idiosyncratic' risks, such as the possibility of delays, or difficulties in construction and/or operation, should not be reflected in the cost of finance for two reasons. First, as noted above, these risks are reflected in the 'expected costs' of investment and operation, which are adjusted to take account of the potential for underperformance in construction or service delivery (Brealey et al., 2008). What is left over in terms of free cash flow to the project investors is therefore a risk-adjusted cash flow.

In addition, while there is a possibility that actual operational costs will be different to those projected, the risk of such variability can be 'pooled' and 'spread' across a diversified portfolio, such that overall portfolio returns are unaffected. Discount rates should, therefore, take account only of 'systematic risks' – that is, those that cannot be diversified away by virtue of their correlation with the market so that all investments are exposed.

The capital asset pricing model (CAPM) of Sharpe (1964) and Lintner (1965) formalizes this idea, and is much the most common model used by investors to calculate their cost of capital (Brealey et al., 2008). It is based on the insight that the appropriate discount rate for valuing projected returns is a function of the time preference rate (reflected in the risk-free rate) plus a premium for systematic risk. Specifically, it states that the cost of capital is derived by adding to the risk-free rate of return the 'beta' of the investment – or the covariance of the projected return on the investment with the return on the market as a whole – multiplied by the 'market risk premium' (i.e. the risk in the market as a whole).

The hypothesis of the PCM approach is that the rate of return on private finance will approximate this discount rate, given adequate competition between suppliers. The rate of return on a competently managed investment will not be lower than the discount rate because this would result in a negative net present value (NPV). But neither will the rate of return be much higher than the discount rate since, in a functioning competitive market, rival investors should be available to provide the public authority with a lower price.

The cost of borrowing from the private sector in UK PFI contracts is not generally identifiable from information in the public domain and, as a result, the literature on this topic is extremely limited. In 2000, a study commissioned by the Treasury examined a sample of PFI schemes from across the sectors, and stated that the cost of private finance was '1–3 percentage points higher than public sector borrowing as measured by current gilt rates' (Arthur Andersen and Enterprise LSE, 2000, p. 4).

This range has since been used by the Treasury as evidence that the interest rate differential between public and private finance is not significant (HM Treasury, 2000). However, this statement, contained in the executive summary of the report, is inconsistent with the document's main text, which states that the 1–3 per cent range applies only to the senior debt finance costs on 'most schemes' in the sample, and not the overall financing cost. The main text acknowledges that 'higher returns will be demanded for junior [subordinated] debt and equity finance' (ibid., p. 9).

Another consultancy-led study, commissioned by the Office of Government Commerce and carried out by PricewaterhouseCoopers and the LSE economist Julian Franks (2002), provides an evaluation of the overall projected post-tax rates of return on 64 PFI projects by comparing returns with project-specific cost of capital benchmarks. To provide these benchmarks, a risk-adjusted cost of equity was calculated via the CAPM, with a risk premium calculated from a beta of UK water and gas utility companies and a market risk premium of 5 per cent, along with the actual cost of debt for each project.

The PwC–Franks report found an 'excess cost' on private finance of some 2.4 per cent. From a policy perspective, this finding is undoubtedly very significant. The crux of the argument about whether private finance costs more than public finance for public capital investment rests on whether the undoubtedly higher rate of interest paid to private investors accurately reflects the costs of the risks that they bear. If private finance costs 2.4 per cent more than public finance, even after accounting for the risk that investors bear, then the value-for-money case for PFI is weaker than has been claimed by the UK Treasury (and many economists).

For PFI to be more cost-efficient than other procurement forms, this additional cost of private finance must be offset by its ability to increase the cost-efficiency with which the other components of the PFI model are delivered. It is to these elements of the structure – the design and build, maintenance and support services – that this chapter now turns.

Design, construction and whole-life costing

The bundling of the construction and operation components of infrastructure contracts is sensible in cases where the desired outcomes can be adequately specified and monitored. Where a single private sector entity undertakes both the construction of a building and its subsequent long-term operation, it has an incentive to make investments in the construction phase in order to reduce maintenance costs in the operation phase and thereby enhance overall cost-efficiency. In other words, bundling of phases encourages up-front investment that will contribute to cost reduction

over the asset's life cycle and, assuming competitive contracting, this will reduce the overall cost to the public sector. In contrast, if two separate firms undertake the construction and operation phases, such investments will not be made in the construction phase, and the overall cost may be higher.

Expanding the scope of this bundle to include finance theoretically sharpens this incentive since the value of the project to the SPV membership is determined by the expected performance of the project over its whole life. As HM Treasury (2003, p. 35) states:

> This incentive to create a public asset with long-term value enables construction contractors to take a long-term interest in the project, even after they have completed their construction task. This also enables the various contractors to the PFI project and investors to work together with a common interest in creating an optimum, whole-of-life, cost-effective project and provides the right incentives to seek the best performance in the form of the performance regime set out in the PFI contract and actively remedy deficiencies.

The empirical evidence on this issue is limited, but the work that has been done does not support the prediction that higher investments will be made to curtail long-term costs. The National Audit Office (NAO), the UK's supreme public sector audit institution,[7] commissioned the Building Research Establishment (BRE) to analyse the build quality of eight PFI hospitals and eight comparator hospitals that were publicly procured (NAO, 2007a). These 16 hospitals were assessed against a set of design quality indicators, including the quality of external materials, internal fabric and finishes, fitness for function and flexibility for layout change and extension. Score against indicators were given with a range of 0 (very poor) to 5 (outstanding), with 4 and 5 judged by BRE as 'best practice' and 3 as 'good practice'.

The BRE judged that, on all counts, there were 'no meaningful differences' between PFI build quality and that at non-PFI comparator hospitals. On average, scores for whole-life costing were 0.69 higher in the publicly financed schemes, with an average of 3.3, versus 2.6 for the PFI schemes. This result was reached despite the fact that the average age of the publicly financed comparator hospitals was around 20 years older than that of the PFI sample.

By far the most sophisticated examination of the relative cost of construction under private finance and public finance arrangements is Blanc-Brude et al. (2006). This study uses a multiple regression analysis to test the hypothesis that privately financed contracts will exhibit higher *ex ante* construction costs than traditional procurements, and employs a database of 227 road projects (including 65 DBFOs) financed by the European

Investment Bank (EIB) between 1990 and 2005. The study estimates that, on average, the *ex ante* construction cost of a DBFO road was 24 per cent higher than a traditional procurement, all else being equal. Superficially, this finding might be taken as evidence that the 'bundling' hypothesis is correct – that additional investments are made to reduce overall project costs.

However, as Blanc-Brude et al. note, the 24 per cent figure is consistent with estimates of 'optimism bias' in projections of construction costs in traditional procurement – i.e. the difference between projected and outturn costs in public procurement. For example, Flyvbjerg et al. (2002) found average cost escalation during construction of 28 per cent overall and 22 per cent for the EU roads sector. For large projects (greater than €150 million) across different sectors, Mott MacDonald (2002) identified an average cost escalation from contract award of 21 per cent.

Blanc-Brude et al. (2006, p.30) state:

> the close correspondence between the (average) optimism bias in traditional public procurement and the (median) increase in *ex ante* costs in [DBFOs] suggests that the public sector is paying more for a [DBFO] road *ex ante* primarily to avoid time- and cost-overruns; that is, the largest part of the estimated difference represents the cost of passing on the construction risk to the private sector partner.

This finding is significant for the cost-efficiency of the DBFO model. It suggests that additional investments are not made by private investors in order to lower operational costs (a finding consistent with the NAO evidence presented above), and that the *ex post* build costs of a DBFO project and a traditionally procured public project are very similar.

The apparent conflict between the predictions of the economic literature and the empirical reality in this context may be explained once the impact of senior debt on contractual performance is considered. Providers of senior debt exert a powerful influence on the contractual structure of a PFI scheme, carrying out due diligence services (eliminating optimism bias from the SPV's projections), and allocating risk to the party best able to manage it so as to ensure that the project will generate sufficient cash flow for the debt to be repaid. Given that on a UK PFI scheme an SPV will generate cash flow only after it is complete and successfully in operation, senior debt providers in particular are likely to favour conservative, as opposed to innovative, design and construction solutions, even where these solutions fail to maximize cost-efficiency in the operational period. To this extent, the involvement of private finance may in fact weaken incentives for whole-life cost solutions over those in place in a publicly financed design, build and operate scheme.

Table 14.3 Comparison of services provided by PFI and non-PFI hospitals

	Security	Linen and laundry	Portering	Cleaning
Cost of PFI vs non-PFI provision	Higher	Higher	Lower	Higher
Quality of PFI vs non-PFI provision	Higher	Ranking dependent on measure	Lower	Lower

The cost and quality of services

Evidence on the cost-efficiency of support services is limited. However, in the healthcare sector, data on the cost of quality of non-clinical services have been collected by the NHS Healthcare Commission. In 2005, it made available the results of a one-off review of facilities management costs and quality across all NHS Trusts across England and Wales. These results allow for a comparison between 12 operational PFI and 141 non-PFI hospitals in terms of the following support services: security; linen and laundry; portering services; and cleaning. These data are summarized in Table 14.3, and show that, with the exception of portering, services provided under PFI were more costly than in the comparator hospitals. Only in the case of security was this increase in cost accompanied by an increase in quality.

Unfortunately, the Healthcare Commission data do not allow for a cost and quality comparison of maintenance services – one very crucial component of the PFI structure in the hospital sector, where contracts are largely based on availability payments.

However, the NAO (2007b) report on operational performance contains the results of interviews with managers at 19 NHS Trusts with operational PFI hospitals on the quality of maintenance. It found that half the Trusts considered availability deduction schedules to be inadequate to ensure that PFI contractors return unavailable areas to use as soon as possible, providing strong evidence of insufficient risk transfer. A particular problem was recorded in respect of reactive (as opposed to planned) maintenance, where only a third of managers recorded performance as good, with a further third describing performance as 'adequate' and a third as either 'poor' or 'very poor'. Against this, 14 of the 19 hospital managements in the PFI hospitals considered that the maintenance of buildings had improved when compared to their recent experiences in conventionally funded hospitals.

Possible source of inefficiency

Because of the financial complexity and long-term nature of PFIs, transaction costs – such as those associated with tendering, bidding and writing contracts – are high relative to other forms of procurement. The process of negotiating contracts is especially costly (for both the public and private sector parties) because of the high cost of legal, financial and technical advisory services. Dudkin and Välilä (2005) found that, for a sample of 25 hospital PFI procurements in the UK, *ex ante* transaction costs for the public sector and the winning bidder were some 8 per cent of the total investment cost (split evenly between the public sector and the winning bidder). Of course, the public sector procurer ultimately bears both sets of transaction costs – its own, and the private sector's, through higher contract prices.

The expense of the PFI process also has an indirect impact on cost-efficiency by providing a significant barrier to entry for potential bidders, preventing firms from bidding and undermining competition in procurement. The National Audit Office (2007b) found that PFI hospitals and schools projects attracted a lower number of bidders than other forms of procurement, and that competition had declined over time. In a sample of 46 contracts signed between April 2004 and May 2006, one-third attracted only two bidders at the point when they were requested to submit detailed bids. The NAO stated that 'it was rare for procuring authorities to choose to eliminate weaker bids as the choice was out of their hands' (NAO, 2007b, p. 12).

Established firms are also likely to have an absolute cost advantage over potential market entrants since senior debt rates are known to be unfavourable for firms with limited PFI experience (Standard and Poor's, 2004). The absence of competition in procurement clearly presents risks that private sector bidders will be facilitated in seeking excess returns.

The procurement process is an additional source of potential inefficiency. Because bidding consortia need to secure loans from banks before contracts are signed, bidders are not required to create fully worked-up bids during the competitive phase of procurement. Instead, there is a period of exclusive negotiation following selection of a preferred bidder – a period that is typically very extensive. The UK's National Audit Office (2007b) found, in a sample of 20 hospital procurements, that the average procurement time was 38 months, almost half of which time was taken up by the preferred bidder stage. It was common for major changes to be made to projects during this period, including increases to prices.

Most public authorities in the NAO's survey also identified the preferred bidder stage as the point at which advisory costs begin to escalate. During this phase, both public and private parties are making significant investments that are specific to the transaction. Given the scale of these

investments, we might view this stage of procurement as a 'bilateral monopoly', in which the power of the monopoly seller is balanced by the monopsony power of the buyer such that a mutually advantageous contract can be developed (Williamson, 1985). However, as Lonsdale (2005) has argued, the private sector is in an advantageous bargaining position during the preferred bidder stage. The NAO (2007b) has noted that, once chosen as a preferred bidder, private consortia know that they are 'virtually guaranteed' the contract (ibid., p. 21). Indeed, a succession of NAO investigations (e.g. NAO, 1999, 2002, 2007a) provide strong evidence that bidders have been able to exploit this, by passing risk back to the public sector while increasing prices during this stage.

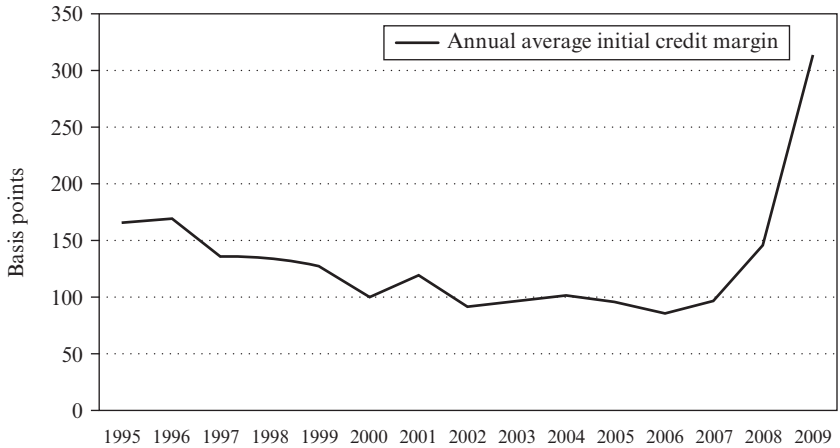
Summary

While a comprehensive evaluation of the cost-efficiency of the PFI model is inherently complex, it becomes somewhat more manageable once the different components of the DBFO bundle are considered separately. Because of the size of its sample, the PwC–Franks analysis can be regarded as strong evidence that private finance has proved more expensive than public finance, even after an objective appraisal of the cost of risks transferred. The cost and quality of privately financed construction appear to be about the same as those of conventional procurement, while the cost and quality of operational delivery in DBFO (including the quality and cost of support services) show no consistent advance on past experience. The evidence is not conclusive and is frequently sector-specific, but the case for PFI's cost-efficiency is clearly not proven, and there is a need for more research.

The impact of the financial crisis

The global financial crisis has led to a significant increase in the cost of private finance – in particular the senior debt component. Commercial bond finance – hitherto the cheapest form of senior debt for PFI projects – has been unavailable since mid-2008,when many of the big US 'monoline' insurers such as Ambac and MBIA lost their 'triple-A' credit rating in the midst of the 'subprime' mortgage crisis. These institutions had played a key role in the provision of senior debt for large projects, by guaranteeing ('wrapping') repayments to bondholders in return for a fee and thereby reducing overall financing costs. The withdrawal of the monolines' ability to provide a triple-A guarantee has removed commercial bond financing as a low-cost option for the foreseeable future.

At the same time, banking sector liquidity has reduced dramatically as the financial crisis has developed. There has been a strong trend away from the traditional 'lead arranger' model where one bank manages a



Source: ThomsonOneBanker (2009).

*Figure 14.5 Annual average initial credit margin on PFI projects 1995–2009 (*n = *198)*

transaction, underwrites the whole debt and then syndicates part of the debt to other banks to reduce their exposure to project risk. Many banks now refuse to accept syndicated debt due to a widespread breakdown of confidence and trust between institutions.

Where transactions can be done, there is a trend towards 'club' deals, in which banks group together to fund the deal, and spread the debt between them (typically in packages of between £25 million to £50 million each). For example, on the recent £187 million Kirkaldy hospital project, a club of four funding banks (Helaba, Lloyds Banking Group, NAB and SMBC) was established, each contributing £42.5 million to the senior debt requirement. The involvement of a large number of lead banks for each PFI project is naturally a source of high transaction costs (which are ultimately borne by the public sector in the form of higher annual charges). Perhaps more importantly, the clubbing together of banks in this manner results in a significant erosion – or perhaps a complete elimination – of competition between senior debt providers.

The impact of this has been stark. Between June 2000 and June 2008, the average initial 'credit margin' (the initial premium that banks charge borrowers above their own cost of raising capital, typically based on the London Inter-Bank Overnight Rate, or LIBOR) was less than 1 per cent for PFI projects. As shown in Figure 14.5, this increased to 180 basis points or 1.8 per cent by the end of 2008, and 312 basis points (3.12 per

cent) by the end of the first quarter of 2009 (ThomsonOneBanker, 2009). Theoretically, a bank's credit margin on an investment is determined by the level of default risk (i.e. the risk of at least one missed payment of capital and interest) associated with the project. It is likely that senior lenders regard the level of default risk as somewhat higher during the current recession (the risk of contractor liquidation, for example, may be regarded as higher in conditions of serious economic downturn). However, the size of the increase in margins over the 12 months to April 2009 indicates that senior debt finance provided in this period contains a substantial premium that is unrelated to default risk, and is associated with credit constraints and the oligopolistic nature of the senior debt market.

In this period, other changes in the financing landscape combined to reduce significantly the economic attractiveness of the PFI model to the public sector. A review of the financing terms in post-July 2008 transactions, recorded in the database Project Finance International, shows a significant hardening of the terms on which banks were willing to lend (Project Finance International, 2009). Post-July 2008, banks typically required an increase in the amount of cash that is generated by the project to meet senior debt interest and principal repayment (i.e. the amount of cash flow projected to be available after the payment of operational costs).

They also commonly demanded a longer 'tail' – a period at the end of a contract during which no senior debt payments are scheduled to be made, such that all cash flow in the project after meeting operational costs is available to remunerate the SPV. The purpose of both these requirements is to ensure that projects generate substantial surplus cash flow, which helps to 'derisk' the project from the banks' perspective. But the effect is to increase, on average, the return to SPV investors – and thereby significantly reduce value for money for the public authorities involved.

In addition to the hardening of senior debt financing terms on transactions that have occurred, since mid-2008 many schemes have been delayed as a result of the lack of available credit (Hellowell, 2009). Responding to this in March 2009, the UK Treasury announced the establishment of a new private limited company, the Treasury Infrastructure Finance Unit (TIFU), which will be wholly owned by the government but will provide senior debt to projects on 'commercial terms' (HM Treasury, 2009b). The Treasury has confirmed that the government's all-in margin 'will reflect that of the other commercial lenders in the banking group' (HM Treasury, 2009, personal communication). The intention is that the Treasury intervention will be short-term, and TIFU will withdraw from the market when the opportunity for SPVs to refinance their loans emerges. In effect, what is being proposed is that the government will lend to public authorities on

a basis of commercial interest rates that contain a substantial premium in excess of the level of risk being borne.

Conclusion

Public sector net debt is due to reach 76.2 per cent of GDP in 2013–14, from 43 per cent in 2008–09 (HM Treasury, 2009c). In this context, the government has confirmed that public sector capital spending will be reduced significantly over the coming years, from more than £37 billion in 2008–09 to £22 billion in 2013–14.

With the national debt rising and the rate of capital funding diminishing, the fiscal advantage of private finance is, from a political perspective, probably more attractive than ever to the government; and ministers confirmed in the annual budget statement of April 2009 that its 'strong commitment' to private finance will continue (HM Treasury, 2009c). There are currently 117 PFI projects in procurement, with a combined capital cost of £12.4 billion. Contracts for £4.4 billion of PFI projects are to be signed in 2009–10, with a further £3.54 billion signed in 2010–11 (HM Treasury, 2009c). After a great deal of uncertainty and speculation about the future of PFI between mid-2008 and early 2009, the medium-term prospects for the model now look very positive.

However, as current expenditure is predicted to fall in real terms over the coming years, the costs of contemporary PFI projects will clearly be a major call on public sector budgets. The extent to which the public sector is getting value for money for these schemes is therefore an issue of the first importance. The balance of the existing empirical evidence available suggests very strongly that private finance in the UK has contained, on average, an excess cost to the public sector – a premium that does not appear to be related to the risks borne by investors. This premium increased significantly in the wake of the financial crisis, particularly in respect of the senior debt component. As credit conditions ease, senior practitioners expect that senior debt interest rates will moderate somewhat, although not to the level that was normal before the financial crisis (Leftly, 2008).

Even before the financial crisis, however, the evidence suggests that PFI has not provided clear advantages in terms of more efficient construction, maintenance or support services. To date, the advantage of private finance in improving the delivery of public infrastructure projects (which could, theoretically, offset the higher cost of finance), has not been demonstrated – indeed, the available evidence, which should not be regarded as conclusive, suggests that, overall, PFI is associated with higher cost delivery. In this context, there is a clear imperative for more research on the economic credentials of private financing within the public sector.

Notes

1. The capital value of a project is a government estimate of what the scheme would have cost had the finance for their delivery been provided by the public sector under traditional procurement. The measure has only a loose association with the (much larger) amount of capital investment actually delivered by the private sector.
2. In April 2009, the UK government moved from Generally Accepted Accounting Practice (GAAP) to International Financial Reporting Standards (IFRS). The result has been that the vast majority of PFI assets have moved on to the balance sheets of the public authorities where previously the vast majority were off balance sheet. However, for central government, the level of capital expenditure will continue to be measured according to the European System of Accounts, which is based on a different theoretical framework to that of IFRS. The effect is that the vast majority of PFI investment will continue to remain invisible to public sector net debt (PSND).
3. In contrast, the embrace of PFI also had the effect of alienating the trade unions and a considerable section of the academic community, both of which were, from an early stage of the PFI's development, hostile to the policy. Along with the public sector union Unison, academics such as Jean Shaoul of the University of Manchester, and Allyson Pollock at the University of Edinburgh, have maintained a prolonged counter-argument regarding the costs of PFI and its detrimental effects on the service capacity of the public sector (see, e.g., Pollock, 2000; Pollock et al., 2002; Gaffney et al., 1999). As Greenaway et al. (2004) have noted, the Labour government has reacted to this criticism by ignoring it.
4. The SPV structure is used in PFI projects to ensure that lending to the project is 'non-recourse', providing comfort to investors. SPV members have limited liability, so that if the project goes wrong and payments are reduced, the parent company itself need not be affected. This structure also benefits senior debt providers, since the project is to a large degree insulated from a potential bankruptcy of any of the SPV shareholders.
5. Mathematically speaking, the IRR is the discount rate that brings to zero the NPV of a stream of cash flows. The two most important measures of return are the IRR on blended equity (based on the cash available to remunerate the SPV) and the IRR on the project (based on the cash flow available to meet capital and interest payments on subordinate and senior debt, and the remuneration of equity).
6. Critics of this position, such as Michael Spackman, the former head of public expenditure economics at the Treasury, argue that this view is misguided since risk is not constant between the sectors (Spackman, 2002). Following the work of Arrow and Lind (1970), Spackman suggests that the cost of risk to the government is lower than for the private sector because it can spread risk across a population of several million individuals. Spackman notes that, in order to provide a benchmark cost of finance for the purposes of comparing against the rate of return to private investors, a risk premium of less than 1 per cent should be added to the gilt rate.
7. The NAO has had a significant impact on the development of PFI policy in the UK. At the time of writing, the NAO has produced 65 reports on PFI, and a large number of policy changes have been enacted in response. The NAO's report on the 'windfall' gains that SPVs have generated through refinancing their loans (NAO, 2000) led to Treasury guidance in 2001 requiring such gains to be shared with the public sector on a 50–50 basis.

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