Has the NAO Audited Risk Transfer in Operational Private Finance Initiative Schemes?

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The government's main justification for using private finance is that it provides value for money by transferring project risks to the private sector. However, of the 622 PFI deals signed by October 2007, the National Audit Office (NAO) has examined the relationship between risk transfer and risk premiums in only three. The government's justification for the policy is largely unevaluated and unscrutinized by Parliament, raising wider issues of public accountability for public expenditure.

Since 1992, UK government policy has favoured paying for capital works in public services through PFI. For the public sector this generally means contracting with a private company to design, build, finance, and operate a facility. In return, the company is paid an annual fee to cover capital costs, upkeep, and operational expenses. The fee for capital includes a risk premium that is not paid when financing is public. According to the Treasury, the premium has two components:

- The first component is the price, private finance charges for assuming project risks. The Treasury says this price (or 'rate of return') is 'determined according to the risks assessed in the project' (Treasury, 2003a, p. 42). Public finance does not include this premium.
- The second component of the risk premium is the cost incurred by the private sector in obtaining funds in the market. This cost is determined by the credit-worthiness of the borrower and it is always higher than the cost paid by government, which as a sovereign borrower has a risk-free credit rating and can therefore secure the cheapest finance. 'Inherent in raising private finance', according to the Treasury, 'is the cost of the private sector securing funds in the market due to the higher risk in funding private sector credit providers as opposed to Government' (Treasury, 2003a, p. 108).

According to the government, VFM gains result in lower costs over the life of a project and are attributed to the greater efficiency that results from transferring project risks to the private sector. The government does not, however, routinely publish data on the premiums paid for risk transfer, which creates difficulties for policy scrutiny.

In 2003, the Committee of Public Accounts (PAC) reported:

> *We have sought on a number of occasions to gain an understanding of the relationship between the returns which contractors earn from PFI projects and the risks they actually bear. At present the available information is limited and rather mixed.*

The scale of private sector risk charges has become a source of controversy with the payment of 'inflated dividends' to PFI shareholders following debt refinancing (NAO, 2006, p. 52). In the case of the Norfolk and Norwich PFI hospital, for example, shareholders received a payout of £34 million on an original investment of £1 million two years after opening (NAO, 2005a).

In this study, we examine the extent to which NAO reports monitor changes in the relationship between risk premiums and risk transfer in its evaluations of operational PFI/PPP schemes with a view to ensuring that value for money is secured. Our findings are reported here.

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Background

According to the Treasury, 563 PFI projects with a total capital value of £53.4 billion were commissioned by central government departments in the UK between 1997 and 2003 (Treasury, 2003a, p. 42). The number of signed schemes had increased to 622 by October 2007. By spring 2007, the Treasury estimated that the aggregate of annual charges 2006–2032 had reached £155 billion. These annual payments are known as the 'unitary charge' and include the cost of risk premiums in the form of interest to private finance. The unitary charge is made up of a service fee in respect of the operation of a facility, an availability fee in respect of the charges for finance, and a lifecycle maintenance charge to cover infrastructure repair or replacement. The availability fee is, in effect, the charge made for capital in a PFI deal and it is set at a level sufficient to pay back the principal and interest of all loans and the dividends of shareholders over the life of the contract. Deductions can be made from the revenue stream if the private contractor does not meet performance standards specified in the PFI contract.

The government's central claim with respect to risk transfer is that it drives efficiencies in the PFI model. According to the government, risk transfer brings benefits that outweigh any cost involved 'even taking account of the risk premium paid to the private sector compared to the risk-free rate of interest associated with [public finance]' (Treasury, 2003a, p. 109). These efficiencies arise because private sector money is put at commercial risk in PFI deals, providing a spur to better performance. In other words, even though private finance costs more because it includes a risk premium that public finance does not, its use provides for countervailing savings through the mechanism of risk transfer.

Risk transfer involves the allocation of risk to the private sector through a commercial contract. The Treasury defines risk as the 'likelihood, measured by its probability, that a particular event will occur' (Treasury, 2003b, glossary). The government does not expect all risks to be transferred under a PFI contract, but only those risks that 'create the correct disciplines and incentives on the private sector to achieve a better outcome' (Treasury, 2003a, p. 35). Demand or market risks are occasionally transferred to the private sector, for example when payment for a roads or bridge PFI depends on the amount of traffic. But such arrangements are usually accompanied by a concession agreement which allows the consortium to raise additional revenue through user charges at the point of delivery.

The Treasury's *ex ante* appraisal process, or VFM test, on which PFI project approval is based requires that the aggregate annual costs of a PFI project are compared with a notional publicly-financed scheme to which an estimated value of the risks transferred is added. However, the cost of the risk premium is not identified. The reason is that government appraisal methodology is concerned with risk allocation, not risk premiums; risk premiums are not evaluated because the government only requires that risks are allocated to the party 'best able to manage them', not to the party where premiums are lowest (which, of course, would always be the public sector).

It has been claimed that full evaluations of VFM are only possible at the end of a contract (Broadbent *et al.*, 2003). This may well be true of the effectiveness of lifecycle maintenance and availability risk transfer (risks concerning fluctuations in the cost of maintaining a facility and ensuring that it remains open throughout the contract) where some profits arise from the distribution of final surpluses. However, it should be possible to scrutinize risk transfer during the life of the contract especially where significant changes to the contract occur as a result of changes in risk assumptions and the value of risk transferred. For example, NAO reports highlight a number of operational schemes where contracts have failed or been renegotiated. These schemes lend themselves to early interim evaluations of the nature of the risk transferred, whether it was transferred in practice and the relationship to the value of the risk premium. This can be undertaken from the perspective of the public purse and from the perspective of returns to private finance.

NAO inquiries are conducted for a variety of purposes and the adequacy of an inquiry in its own terms was not an issue in our research. Rather, our enquiry was directly related to the PAC's concern to establish whether public audit bodies were seeking to understand the relationship between risk transfer and the risk premium, that is the rationale for the additional cost of private finance. The presence or absence of relevant data is a good test of current capacity of public audit bodies to evaluate the relationship between risk transfer, risk premiums, and annual charges.

Methods

The research had two objectives:

- To identify using NAO *ex post* studies where significant changes have occurred to the contract.
- To establish whether financial auditing of post-contractual risk transfer, risk premiums, and annual charges was undertaken.

Study selection was based on NAO published inquiries into central government PFI schemes, conducted between parliamentary sessions 1997–98 and 2005–06, identified from the PFI recommendations service page on the NAO's website. Risk transfer and risk premium changes can only be monitored in the operational phase, and the NAO inquiries are the only extensive series of studies of central government operational PFI deals undertaken by a public audit body (Audit Commission evaluations of local authority PFI/PPP schemes were not part of our study). Inquiries dealing with privatizations, evaluation of the procurement process, or the initial contract were excluded.

Each NAO inquiry report was examined to determine whether contract change had occurred and whether the relationship between risk transfer and risk premiums, and annual debt charges had been evaluated or whether evidence was included that would enable an evaluation.

For each report we looked for the following data items: the baseline financial model in the original contract including the cash value of risk transfer, premiums, and annual charges pre- and post-contract. Where the report described post-contract changes in risk transfer, as in most cases they did, we looked for data on changes in risk, risk premium, and annual charges. Risk transfer mechanisms are complicated and increases in the risks borne by investors under one part of the contract can be compensated by decreases in another part. We therefore did not seek to establish how net risk had changed from contract signing only that there was prima facie evidence that it had.

Results

The NAO lists 52 PFI and PPP inquiries between House of Commons sessions 1997–98 and 2005–06 of which 14 covered operational schemes (10 PFI and four PPP). Thirty eight reported inquiries into the procurement process, or asset sales, were generic reports providing non-financial evaluations of a class of PFI/PPP deals or particular aspects of deals, or related to schemes outside the study period*. Our study was based on the 10 operational PFI inquiries, all but one of which of which showed significant post-contract changes in risk transfer. The schemes are described briefly below.

Libra Project: new IT systems for magistrates' courts. In 1998, the then Lord Chancellor's Department signed a PFI contract with the computer company ICL to develop an IT system called Libra to provide an electronic link for magistrates' courts.

Ministry of Defence (MOD): Joint Services Command and Staff College. A 30-year contract to Defence Management (Watchfield) Ltd, a special purpose company wholly owned by Laing Investments and Serco Investments, for a PFI project for the construction of a new college, associated married quarters, and single accommodation, and the provision of facilities management services and academic teaching (NAO, 2002, p. 1).

NIRS (National Insurance Recording System) 2: contract extension. A £76 million PFI deal was concluded in 1995 between the Benefits Agency and Andersen Consulting for NIRS2, an IT system for administering national insurance (NI) schemes. In 1997, the government introduced significant changes to pensions and NI legislation and the PFI contract was renegotiated. The NAO estimated the value of the contract extension at 'between £70 million and £144 million, depending on the amount of work ordered over the remaining life of the contract' (NAO, 2001, p. 1).

The renegotiation of the PFI-type deal for the Royal Armouries Museum in Leeds. In 1993 the Royal Armouries signed a PFI contract with a private firm, RAI, for construction and operation of a new museum in Leeds. RAI were to depend on visitor entrance fees to finance the loans required to build the new museum.

The cancellation of the Benefits Payment Card project. In May 1996, the Department of Social Security and Post Office Counters Ltd awarded a PFI contract to Pathway, a subsidiary of ICL, to produce a magnetic stripe benefit payment card and to automate the national network of post offices through which most benefits are paid. The 'estimated contract value' was £1 billion over seven years (£1 billion is a discounted value, not a cash value—cash values are not reported by the NAO). One purpose of the contract was to achieve savings by counteracting fraud. Under the deal, Pathway assumed construction risk, operational risk, and fraud risk. In May 1999, payment card development was withdrawn from the project and a new contract drawn up.

Refinancing of Fazakerley prison PFI contract. The NAO case study of Fazakerley prison PFI reviewed negotiations about the allocation of benefits arising from interest rate or refinancing change in a PFI deal. Refinancing is a change in financial structure that affects premiums and risks after a PFI contract is up and running.

*These are the reports included in the NAO's PFI and PPP recommendations service as 'all PFI and PPP/privatization reports'. The five generic studies were: 'The operational performance of PFI prisons'; 'PFI refinancing update'; 'PFI: construction performance'; 'Managing the relationship to secure a successful partnership in PFI projects'; and 'DETR: the PFI: the first four design, build and operate roads contracts'. The last report was omitted because it related to schemes before the study period.

1999 passport delays. In July 1997, the Passport Agency awarded a 10-year, £120 million PFI contract to Siemens Business Services for the collection, storage, and transmission of passport application data.

The Immigration and Nationality Directorate's Casework Programme. In April 1996, the Home Office Immigration and Nationality Directorate awarded a £76.8 million PFI contract to Siemens Business Services Ltd for an IT-dependent business change project. The project was intended to speed up refugee and asylum applications and was scheduled for delivery in October 1998.

Darent Valley Hospital: The PFI contract in action. In 1997, Dartford & Gravesham NHS Trust awarded the first NHS PFI contract for a new hospital at Darent Valley. The hospital was opened in 2000 and the deal refinanced in 2003.

Norfolk and Norwich University Hospital NHS Trust: In 1998, Norfolk and Norwich University NHS Trust agreed to pay Octagon, a private company, £37.8 million to provide a new hospital in Norwich. Additional building was commissioned in 2001 and the whole deal refinanced in 2003.

The NAO documented changes in risk transfer in all but one of the schemes, the Joint Services Command and Staff College. In this case, risk transfer failure was highly unlikely after the construction period because the unitary charge was largely protected from demand risk by a guaranteed payment system that ensured minimum payments were student numbers to fall below a certain level. In first year of operation student admissions were 7% below guaranteed minimum which meant that the Ministry of Defence had to pay the PFI operators for more students than actually attended the college (NAO, 2002, p. 22). Risk changes are summarized in table 1.

Table 2 shows the schemes in which baseline and post-contract data were made available in the 10 *ex post* studies. In only three of the nine studies in which changes in risk transfer were observed, Fazakerley Prison PFI, Darent Valley, and Norfolk and Norwich, were relevant baseline and post-contract data present. In the other six studies, relevant data was either incomplete or absent. One of these, the Benefit and Payment Card project was a cancelled PFI. In this case, termination compensation was the relevant datum, but was not present.

Discussion

Although 622 PFI deals had been signed by October 2007, only 10 financial inquiries into central government operational PFIs had been undertaken by the NAO by December 2006. In these 10 studies, the government's central justification for PFI in terms of risk transfer remains largely unaudited. With three exceptions (Fazakerley, Darent Valley, and Norfolk and Norwich), data that would allow auditing of the relationship between risk and risk premiums are not provided by or available in the inquiries.

Our study shows that the government's claim that the higher costs of private finance are due to risk transfer is largely unevaluated for central government PFIs. The expectation that changes in risk transfer are accompanied by changes in the premiums paid to private financiers and adjustments to annual payments has not been tested.

Significantly, in early 2007 the NAO produced a systematic *ex post* study of PFI hospital schemes that included evaluation of the risk transfer mechanism. The study, which has been obtained under the Freedom of Information Act because its publication has been withheld, found that in 63% of PFI hospital deals investigated, the system of financial penalties for poor performance on which PFI risk transfer relies was insufficient and that performance data was not always available. According to the report: 'Twelve of the 19 first-wave PFI hospitals did not believe that the level of deduction that they can impose is sufficient to incentivize the contractors to provide a satisfactory level of performance. Some trusts also had problems in obtaining data to operate their performance systems' (NAO, unpublished, The operational record of the first wave of PFI hospitals. Provisional audit findings for finance directors' consideration). This finding raises serious questions about the effectiveness of the risk transfer mechanism used in some PFI deals and therefore about the central rationale for the policy. It suggests that for the schemes in question risk premiums were paid when there were no reliable means of enforcing risk transfer or when there was insufficient performance data available to monitor it.

Systematic examination of the rationale for and costs of PFI policy are long overdue. The current system of public administration does not evaluate the VFM tests after a PFI scheme becomes operational. Lord Sharman's report into accountability and public spending identified two other principles of accountability apart from VFM. These are confirmation that public money is being spent:

• With propriety (that is, 'in accordance with the

Table 1. Summary of post contract changes in risk transfer in 10 operational PFI NAO inquiries.

NAO PFI report	*Evidence of risk transfer failure/risk reallocation*
Libra Project: new IT systems for magistrates' courts	The project hit problems and was renegotiated twice because the company had overestimated revenues and underestimated costs and development difficulties. The 'total contract cost' (not defined by NAO) was increased from £184 million to £319 million and the contract period extended, additional capital injections by the public sector were introduced and the annual charge reduced, and a profits agreement was drawn up guaranteeing shareholders' rights to extract profits up to a certain level. These changes indicate risk transfer failure and risk reallocation.
MOD: JSC and Staff College	The college was fully established in September 2000 and the college has so far delivered planned training. No evidence of risk transfer failure or risk reallocation.
NIRS2: contract extension	The original contract aimed to transfer the risk of development cost overruns and delivery risk to Accenture. In the revised contract development risks were shared (NAO, 2001, p. 17) and the Inland Revenue formally recognized that delivery risk had not been transferred because of statutory responsibilities. The contract renegotiation provides evidence of risk reallocation.
The renegotiation of the PFI-type deal for the Royal Armouries Museum in Leeds	The museum failed to attract enough paying customers to cover its costs and attempts were made to restructure financial arrangements so as to reduce risks to bank investors and lower the cost of finance. In 1999, when refinancing failed to solve the problem, it became apparent that Royal Armouries had not transferred performance risk under the PFI deal, and the contract was revised. Under the contract revision, the main risk allocated to the private sector (the 'demand risk' of adequate customer numbers) was transferred back to the public sector while shareholders, who should have lost their investment when the contract failed through lack of cash, were substantially protected. Evidence of risk transfer failure and risk reallocation.
The cancellation of the Benefits Payment Card project	In 1997 the Department of Social Security and Post Office Counters Ltd told Pathway they were in breach of contract for non-delivery. Pathway denied liability. Estimating £200 million of lost fraud savings, the public commissioners chose to terminate the contract rather than go to litigation. The costs of cancellation fell largely on the public sector in terms of reductions in projected departmental savings from £667 million (NPV) to £148 million (NPV), transfer back to the public sector of a £571 million asset 'which does not at this stage yield sufficient income to justify the cost' (NAO, 2000) and waste or loss of revenue estimated £698 million. Evidence of risk transfer failure and risk reallocation.
Refinancing of Fazakerley prison PFI contract	Refinancing involved: an extension to the period over which the consortium's bank loan would be repaid; a reduction in interest rate of the loan; the arrangement of a fixed rate of interest covering the full period of the loan; and early repayment of debt invested by shareholders. The effect of these measures was to increase public risk bearing because in the PFI contract the prison service undertook termination liabilities in the event of the project failing. Termination liabilities are agreements to repay outstanding debt to lenders and are higher when outstanding debt is higher. By deferring debt repayment, refinancing increased termination liabilities by an estimated £1 million. Evidence of risk reallocation.
1999 passport delays	Siemens' performance in collecting and storing passport application data proved to be seriously deficient. Passport processing times increased from 10 days to 25 and 50 days and the backlog of unprocessed applications increased in one year from 300,000 to 565,000. These failures led to financial penalties of £69,000 being imposed on the company under the terms of the PFI deal. However, the Passport Agency waived a further £275,000 compensation 'in the interest of good working relationships over the 10-year life of the project' (Edwards *et al*., 2004, p. 52), and at the time of the NAO review the agency was discussing with Siemens how the costs of the crisis were to be shared. Evidence of risk transfer failure.
Immigration and Nationality Directorate casework programme	The scheme proved too ambitious and by mid 1999 the backlog of asylum seekers had increased in one year from 52,000 to 219,000. In September 1998, Siemens and the directorate revised the contract and the government injected an extra £120 million funding to pay for 160 extra Siemens staff and IT maintenance. Evidence of risk reallocation.
Darent Valley Hospital	The 2003 refinancing accelerated financial benefits to shareholders, increased the minimum length of the contract by seven years and increased the financial risks borne by the trust. The NAO calculated that shareholders, whose total investment was £13 million, received payments of £37 million within three years of the hospital opening, that £46 million was added to the contract price to finance these accelerated returns, and that the trust was liable to increased termination liabilities with respect to this additional debt (NAO, 2005b). Evidence of risk reallocation.
Norfolk and Norwich University Hospital	Octagon's 2003 refinancing, two years after the hospital opened, was accomplished by extending the contract period from 35 years to 39 years, increasing the debt and extending the trust's termination liabilities. Refinancing accelerated and increased shareholder returns from £47.3 million (NPV) at contract letting to £117 million (NPV) at refinancing (NAO, 2005a). Evidence of risk reallocation.

standards expected of those dealing with public money').
- For the purposes intended by parliament (Lord Sharman, 2001, p. 1).

Conclusion

The UK government's main justification for using private finance, which it acknowledges is more expensive than conventional public finance, is that it improves value for money (VFM) by lowering costs over the life of a project through risk transfer and efficiency savings (Dunnigan and Pollock, 2003).

The National Audit Office (NAO) had conducted a number of evaluations of operational private finance initiative/public-private partnership (PFI/PPP) schemes by December 2006. In the absence of any other systematic evaluations, we undertook a study to establish the extent to which NAO reports have documented changes in the relationship between risk premiums and risk transfer in its evaluations of operational PFI/PPP schemes and whether the NAO has monitored, with a view to ensuring that VFM is secured, changes in risk allocation and risk premiums in the operational phase.

By October 2007, 622 PFI deals had been signed, only 10 financial inquiries into central government operational PFIs had been undertaken by the NAO by 2006, and of these only three examined the relationship between risk transfer and risk premiums. The government's central justification for PFI in terms of risk transfer remains largely unevaluated.

Our study shows that, in most cases, the NAO's 10 operational PFI inquiries have failed

Table 2. Summary of data available to monitor post contract changes in risk, risk premiums and availability fee.

NAO PFI Report	*1. Baseline data*	*2. Post-contract data*
Libra Project: New IT systems for magistrates' courts	Risk and risk premium data not available because the private company did not release their financial model to the department or the NAO. The availability fee is not published. fee is not available.	Consultants were employed to compare the cost of the revised contract with an estimate of what such a contract 'should cost', but their calculations excluded 'interest, risk and profit' (NAO, 2003, p. 23) and these data are not available. The revised availability
MOD: JSC and Staff College	Quantitative data provided for aggregate risk and availability fee but not for risk premiums.	No evidence of post-contract change in risk, premiums or availability fee.
NIRS2: contract extension	Not available.	Not available. A comparison of Accenture costs with industry and outsourcing costs is shown graphically.
The renegotiation of the PFI-type deal for the Royal Armouries Museum in Leeds	No quantitative data published on risk and risk premiums, although a table itemizing risk allocation is provided. There was no availability fee in this case due to an agreement that operational costs were funded out of visitor revenues.	Data are provided on the annual cash cost to Royal Armouries of taking over main responsibility for the new museum but no quantitative data are given on the value of risk transferred back to the public sector or retained by the private sector. Risk premiums are not stated and are apparently uncapped under the revised contract. Availability fee not applicable.
The cancellation of the Benefits Payment Card project	Not available.	Not available. Since this is a cancellation, termination compensation (including extra-contractual compensation) and the fee for post office automation would need to be considered.
Refinancing of Fazakerley prison PFI contract	Baseline data provided for risk, premium, and availability fee.	Post contract data are provided for risk, premium, and availability.
1999 passport delays	Not available.	Not available.
Immigration and Nationality Directorate's casework programme	Not available.	Not available.
Darent Valley Hospital	Baseline data are provided for risk, premium, and availability fee.	Post contract data are provided for risk, premium, and availability.
Norfolk and Norwich University Hospital	Baseline data are provided for risk, premium, and availability fee.	Post contract data are provided for risk, premium, and availability.

to address the principles or to provide data for others to do so. This raises basic democratic questions because, as Lord Sharman put it, 'The proper and productive use of public money is an indispensable element of any modern, well-managed, and fully accountable democratic state'. ■

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