



PUBLIC PRIVATE PARTNERSHIPS IN SCOTLAND
EVALUATION OF PERFORMANCE

March 2005

Final Report

Submitted by:

Cambridge Economic Policy Associates Ltd.

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1. SUMMARY

This report is the result of a research project commissioned by the Scottish Executive to further its knowledge and understanding of the performance of Public Private Partnership (PPP¹) projects in Scotland. The aims of the research were:

Stage 1: to provide an initial assessment of the relative costs and benefits of PPP procurement in comparison to conventional procurement, and of the underlying causes of good and bad performance;

Stage 2: to assess the potential merits of centrally collecting additional performance monitoring information and other data in order to inform future PPP performance evaluations, and to provide recommendations on what data should be collected.

Section 1.1 summarises the evidence from our survey of operational projects in Scotland organised around the key questions set out in the terms of reference. The section concludes with a list of the immediate recommendations that arise from the survey evidence. As the Scottish Executive recognised at the outset, the high-level nature of the study does not enable us to provide definitive answers to all of the questions posed in the brief. Furthermore, since PPPs are a comparatively recent development, and involve long-term contracts, operational experience of FM services is relatively limited and whole life aspects of the contracts cannot be fully assessed at this stage.

Section 1.2 then provides CEPA's overall assessment of these questions drawing on both the survey work and our previous experience of PPPs. It is important to recognise that our assessment is judgemental.

Section 1.3 summarises our findings on Stage 2 of the work. Our approach has been to consider in particular what further work (including but not limited to the collection of data) would be needed to build up a body of evidence about the relative costs and benefits of PPP compared with conventional procurement.

1.1. Stage 1 summary of evidence

Cost: To what extent does PPP procurement deliver overall cost savings in comparison to conventional procurement? How far can this be assessed with reference to factual data, rather than through comparisons with the assumptions used in Public Sector Comparators?

This question goes to the heart of the assessment of the relative costs and benefits of PPP. See CEPA's overall assessment in Section 1.2 below.

¹ Many projects involve some sort of partnership between the public and private sectors. We restricted this study to projects that involve long-term payments to the private sector in return for the provision of a public service asset. PPP projects of this type are often referred to as Private Finance Initiative (PFI) projects. PPP projects typically differ from conventionally procured projects in that a single contract is let for the design, construction and operation of an asset and long-term financing is provided by the private sector.

The Public Sector Comparator is clearly an important tool for assessing procurement options. Indeed, in all projects in our survey where a Public Sector Comparator (PSC) was prepared (84 percent), the ex-ante analysis of the proposed PPP showed a saving versus the PSC.

However, to make a full assessment based on factual evidence, it would be necessary to compare in detail a number of PPP and conventional procurements (of infrastructure and the associated operations) in the same sector over a significant length of time. It has not been possible to do this within the scope of this research. But, as identified in our conclusions on Stage 2 of this work, we do believe that it is possible to carry out further work that, at least partially, overcomes these constraints.

Other evidence from our study that relates to cost is as follows. First, more than half of the authorities surveyed believed that their contract offered good or excellent value for money, and only one project was rated as poor value for money. Second, our research identified a number of areas including procurement, performance monitoring, insurance and commissioning additional works, where costs are perceived to be higher for PPP projects. Third, our research also showed that contract managers generally perceive construction and operational risks to be appropriately allocated. Each of these points is discussed in more detail below.

Competition: Is there generally a healthy level of competition for PPP contracts, and hence is the lowest market price for the PPP service being obtained?

Projects included in the survey had received, on average, nine pre-qualification bids. The minimum number of bids received was two (and this only happened in one case). In our view this represents a generally healthy level of competition and was sufficient to achieve the most economically advantageous price.

Authorities and contractors commented that the level of competition has reduced in recent years and there is some anecdotal evidence that there is now less competition for PPP contracts than for other types of contract.

Procurement and construction performance: How far does the use of PPP impact on procurement costs and timescales? To what extent does the use of PPP deliver projects more quickly and on budget in comparison to conventional procurement?

The PPP procurement process is expensive and represents a greater burden for smaller projects. The mean time taken to procure the PPP projects surveyed was 28 months, which was generally perceived to be slower than non-PPP procurement. We note, though, that the increased costs and timescales associated with procurement should be weighed against their impact on overall timing and value for money. It is also worth noting that 'bundling' of smaller projects can help to spread procurement costs across several discrete projects.

There was greater price certainty during construction in the PPP projects surveyed than has been the case historically with conventional procurement. The proportion of projects delivered on time also showed a significant improvement over historical experience.

Nevertheless, on more than half of projects, the price changed at the preferred bidder stage because of a change to the design or service specification.

Design: To what extent are PPP designs perceived to be better (or inferior), e.g. in terms of aesthetics, functionality, environmental performance, etc? Is the relevant good practice guidance being followed?

Our survey found that authorities were happy with design quality. PPP projects were perceived to perform the same as, or slightly better than, non-PPP projects with respect to aesthetics, functionality and environment.

These perceptions reflect, in part, the fact that many authorities played an active role in the design process. More objective approaches to assessing design by sector (e.g. hospitals / schools / prisons) would need to be carried out to make a more informed judgement about actual design quality.

Formal design evaluation tools were not generally used in the projects surveyed, because these projects were amongst the first to be developed and such tools were not available.

Innovation: To what extent do PPP contractors deliver genuinely innovative solutions?

There was evidence from the survey and interviews that PPP stimulated innovation, although authorities were less positive about the role played by the PPP contractors than the contractors themselves. As with design, we believe that the authorities' views reflected their level of involvement in design decisions.

Operational performance: To what extent do PPP operators deliver a better (or worse) standard of service than the public sector, e.g. in terms of availability, cleaning, catering, etc? To what extent do service levels fall short of or exceed the original expectations of the contract?

We found no evidence that PPP operators delivered a better or worse standard of service than the public sector. Authorities commented that service standards were determined by the standards specified in the contract and the budget available.

Most authorities thought that the standard of service met or exceeded expectations. Availability² performance was rated highly, which might reflect the strong financial incentive on contractors to meet availability targets. Hard facilities management services rated relatively poorly. However, we understand that this reflects some frustration on the part of authorities over the resolution of snagging issues and minor repairs, rather than concerns about lifecycle maintenance. It is too early to draw any conclusions about the impact of PPP on longer-term maintenance. But real issues were also raised about the interaction between hard and soft FM providers in PPP structures.

Flexibility: Are PPPs seen as being more or less flexible than standard contracts, e.g. in terms of making alterations to the asset, levels of service, etc? What has been the experience of attempting to make changes to contracts?

² In most PPP contracts, a significant proportion of the payment to the contractor is linked to the asset being available for use by the public sector at the contracted standard.

Our survey results showed that PPP contracts are seen as less flexible than non-PPP contracts. Authorities reported that their experience of making changes has been time consuming and slow. Where changes have been implemented across a sector they have been delivered later at PPP facilities.

A number of authorities commented in interviews that:

- The costs associated with making contract changes meant that they often sought to wrap up a number of changes over time into a single negotiation.
- Changes were rarely incorporated within the unitary charge mechanism because of the complication of agreeing the financial impact. But also, for an authority with grant available to spend on a specific change, it made sense to make a one-off payment rather than to incur financing costs.
- Works costs for contract changes were perceived to be expensive in the absence of the ability to tender them. Further work would be required to assess whether costs quoted by PPP partners reflected an allowance for maintenance and renewals.

Clearly it is important for authorities to get the scope of their projects correct when they are preparing Business Cases and ITNs. But it is inevitable that, over the life of a 30 year contract, changes will be required to support, amongst other things, new work practices and different user groups.

Contractual Relationships: Are relationships between customers and contractors perceived to be based on a “partnership” approach or an “adversarial” approach? What has been the use and impact of penalty payments/ bonuses and/or the threat of termination of the contract?

Survey evidence showed that the majority of relationships between authorities and contractors are good. In interviews it was clear that both parties recognised the benefits of developing a long-term partnership.

Payment mechanism deductions are being implemented on the majority of projects. Authorities rated availability performance highly, and cited cleaning and minor repairs as the areas where performance was least satisfactory.

Budgetary Issues: How valid is the argument that the use of PPP delivers benefits due to budget restrictions in the public sector (particularly capital budgets)? For example, is it valid to argue that PPP procurement brings forward investment and/or ensures that optimal maintenance strategies are followed?

Many survey respondents commented that, at the time their project was procured, PPP was the only option given the authority’s capital constraints. (See Section 1.2 for commentary on this).

It is too early to compare maintenance strategies between PPP projects and contemporary non-PPP projects. However, our survey confirmed the observation that PPP does ensure that funds for maintenance of particular assets are effectively ring-fenced over the life of the contract, whereas non-PPP projects compete with all of an

authority's non-PPP assets for a share of the maintenance / renewals budget. Indeed the overall maintenance budget itself can be subject to pressures from other priorities.

Risk transfer: To what extent is risk transferred in practice? Is it always clear where risk lies? Is there any evidence of contractors or customers seeking to shift risk onto the other party after signing the contract?

Survey respondents believed that risks were, for the most part, allocated appropriately.

In the case of operational risks, authorities noted that ambiguities in the contract drafting sometimes made it unclear where risks lie and presented opportunities for risks to shift. We would expect this to become less of an issue as the lessons learnt from early projects are incorporated into standard contracts. More issues around where risk lies were raised in sectors with significant interfaces between the PPP contractor and public sector staff, users and other contractors. This was most notable in the health sector where the interactions between hard and soft facilities management and the risks associated with the needs of different user groups were not always clearly defined in the contract.

Recommendations

The immediate recommendations arising from the survey, which are not covered in our Stage 2 work are as follows:

- Wherever possible Authorities should ensure that formal feedback systems, for example user surveys, are in place as part of the contract process.
- Further research should be carried out to review whether the contractual remedies relating to snagging provide appropriate incentives to contractors to resolve these issues.
- Authorities should continue to focus on developing the up-front specification to minimise any changes during the construction period, particularly in the light of concerns about value for money. However there may be a case for streamlining the change procedure for relatively minor changes.
- The Scottish Executive / Departments / Local Authorities could consider carrying out further research in the area of hard FM provision, with the aim of producing best practice guidelines for authorities and contractors and informing the terms of future contracts.
- Further research should be carried out to look at ways of enhancing flexibility without losing the benefits of PPP, focusing on those sectors where flexibility is a key area (e.g. health).

1.2. CEPA's assessment

In this section we set out our assessment of the performance of PPPs in Scotland taking account of both the evidence gathered in this survey and our prior knowledge of PPPs.

Introduction

First, we believe that the Scottish Executive is right not to place undue emphasis on differences between the net present value (NPV) cost of the public sector comparator (PSC) and the NPV cost of payments to the PFI service provider. While a comparison of bid prices with the PSC is clearly one important element of the decision process, a full evaluation needs to be considerably wider. We would note, in particular, the importance of ensuring strong competition so that risk transfer is properly priced.

Second, we believe that a nuanced assessment of PPP needs to consider the different components of services separately. We note that much research (and therefore the available factual evidence) into the performance of PPPs has focused heavily on construction costs and construction cost risk transfer rather than the costs and benefits to the parties over the full life of the contract. This is certainly understandable given: (i) the significance of this issue in terms of overall costs, and the poor historical performance of conventional procurement; (ii) that most PFI contracts have only been operational for a small proportion of their 25-30 year contract lives; and (iii) the inherent difficulties associated with measuring service quality, life-cycle asset management performance, and the costs of loss of flexibility³. But it does leave a clear gap in Government's knowledge.

In what follows we offer observations on: design; construction; operations (including both hard and soft facilities management); and life-cycle of the assets. It is important to recognise that the performance of PPP can, and we believe does, vary across sectors.

We also note that there are limitations to the methodology used in this broad study. For example, we received significantly fewer responses in the health sector, where there appear to be more post-completion tensions⁴. It is also important to note that interview responses always have the potential to suffer from interview bias, especially when the respondents have a vested interest in the projects.

Third, we believe that it is important for research to seek to distinguish between the impact of PPPs that is (i) attributable to the specific nature of the procurement structure (e.g. the involvement of private finance and the attempt to create incentives for whole-life costing by transferring operational risks⁵); and (ii) attributable to improvements in public sector procurement practice, regardless of the procurement structure used. Part

³ In contrast with operational risks, construction risks can be measured more easily in terms of whether the assets were delivered to time and budget.

⁴ The low response rate may also reflect the possibility that some of the smaller projects are not considered by authorities to be 'true' PPPs.

⁵ Although note that we believe that it should be possible to procure using 'Design, Build and Operate' structures using public finance and gain some or all of these benefits.

of the problem with achieving this, as we and the Scottish Executive have observed from the outset of this work, is the ability to identify convincing counterfactuals to PPP. In particular:

- There are relatively few large-scale non-PPP projects in Scotland against which to compare PPP procurement, except perhaps in the schools sector. It is not ideal to compare new PPP assets with the vast majority of other public assets since it is very difficult to establish how far the benefits perceived by those using the buildings derive from the method of procurement or the fact that the assets are new.
- There are few examples of alternative procurement approaches such as ‘Design, Build and Operate (DBO)’ contracts.

It should also be noted that due to the broad scope of this study we have not been able to investigate conventional procurement projects in the same depth as PPP projects. There would be some merit in considering additional, in-depth research in this area in the future.

Design and Construction

The evidence from this research and from earlier research by the National Audit Office (NAO) demonstrates that PPP procurement has resulted in significant improvements over conventional procurement in delivering projects on time and within budget. PPP provides a strong incentive for contractors to complete assets to an agreed timetable in order to start receiving payments.

In particular, PPP has demonstrated to authorities the benefits of specifying requirements up-front and minimising any changes during the construction period. Authorities should be encouraged to import these lessons into conventional procurement. Similarly, PPP contracts have demonstrated the benefits of using fixed price contracts with clear risk allocation. These lessons could also be applied more widely in conventional procurement⁶, for example through the use of fixed price turn-key Design and Build contract structures.

The need in PPP projects to specify requirements in detail and early on has also played a role in focusing authorities’ attention on design issues. Although detailed design risk is transferred to the private sector, our interviews suggest that authorities in Scotland have remained heavily involved in developing PPP projects. They have looked to international best practice, sought input from users and, more recently, used specialist design tools to support them. Again, we think that these approaches could usefully be imported into conventional procurement methods (although see below for discussion of the impact of PPP on whole life costing).

⁶ With the exception of some special situations, for example complex IT contracts.

Life-cycle asset management

CEPA's view is that the incentive that PPP provides to the private sector to design assets to minimise whole life costs, and to carry out necessary maintenance is a major area where this form of procurement could have advantages over conventional procurement. But, we are unable to judge this impact because most PPPs are not currently at the stage where it is possible to fully assess the impact of the approach to life-cycle costs.

There was however some evidence from our survey of whole-life costing at the design and construction stage, for example designs that optimised access to areas that would require maintenance and the use of longer lasting flooring materials.

Another interesting point to note arising from our discussions with authorities is that the ring-fencing of funding for PPP contracts means that, provided the contractor budgeted correctly for life-cycle costs in the original bid, such assets may be better maintained than traditionally procured assets. The argument is not related to the characteristics of PPP itself. Rather, that where money for maintenance (and particularly) renewals comes from general budgets it may be subject to other competing claims.

Operational performance

PPP contracts appear to be performing well in relation to availability of the basic assets (e.g. schools, hospitals, roads etc). Poor availability performance would lead to significant deductions in the payments received by the contractor which creates a strong set of incentives for the contractor to ensure availability. The level of incentives here is, in part at least, a function of the level of debt in the vehicle – which determines the importance of availability performance to the banks.

We have not identified any evidence to suggest that the soft facilities management (FM) services provided under PPP are any better or worse than those provided by the public sector (either through short-term contracting out or by employing staff directly). Fundamentally the answer to the question depends on the level of service specified in the contracts and the amount that the authority pays for these services. As discussed in Section 1.3 of this report, this is an area where further, in-depth, analysis of a selection of comparator projects is likely to provide more robust evidence and conclusions on relative levels of performance.

We have not been able to draw conclusions on the value for money of the operational services provided under PPP. A key issue for further investigation is how facilities management services get re-priced against the market using benchmarks rather than market testing.

An important point in relation to soft FM in PPP contracts arising from this work relates to the interaction with hard FM and the allocation of risks. This is a particular issue if the authority itself is carrying out soft FM (for example, cleaning carpets), while the contractor carries out hard FM (for example, replacing carpets worn out through over-cleaning). These problems clearly occur in conventional procurement too, although they are rarely explicitly identified.

Where the contractor carries out both functions this risk allocation issue is overcome. However, our interviews have suggested that the authority still risks becoming embroiled in internal wrangles over responsibilities. This is particularly the case in situations in which the hard and soft FM sub-contractors are different:

- The majority of SPVs are construction-led, and there is a risk that, once the construction phase of the project is completed, and the profits relating to that phase extracted, the project will become less of a priority for the construction partner (although they will retain an interest in the SPV profits).
- In the operational phase, day to day contact is often with the soft FM sub-contractor to the SPV and there is some evidence that authorities are finding it difficult to hold the SPV and its construction sub-contractor to their ongoing responsibilities where they fall outside the remit of the on-site soft FM provider.

We believe that this finding suggests that further consideration needs to be given to the impact that contractor structure within the SPV will have on project performance – particularly as it moves to the operational phase.

Flexibility

A key concern with long-term PPP contracts is the level of flexibility that they offer to authorities to make changes either to the use of assets or to the level and type of services offered. As noted above in Section 1.1, our survey findings do suggest that this concern is valid – both in terms of the time and administrative burden of making contract changes and the costs associated with a single tender action with the existing contractor.

On balance the reduced flexibility implied by PPP contracts has probably been a benefit during the construction phase of projects, forcing better up-front specification and reducing cost overruns and delays.

During the operational phase of the contract, the contract inflexibility has a negative impact compared with conventional procurement. Although most contracts provide the option for the authority to use third-party contractors, the costs associated with managing this can be prohibitive. In addition, the introduction of third party providers of services or infrastructure can dilute the extent to which the authority transfers performance risk in practice, or can lead to problems associated with who takes responsibility for ongoing maintenance or renewal (as identified above in the situation where there are different soft and hard FM providers). The costs imposed on the authority by the inflexibility of the contract are likely to vary by sector. In sectors where a larger proportion of final service ‘value added’ is provided outside of the PPP contract (e.g. health and education) and where the contract interfaces are more complex (e.g. health) our expectation is that the costs will be greater.

The role of finance

This study has not sought to consider the role of finance, and evidence from the survey and interview work does not allow us to draw any conclusions on its importance. The standard arguments about the importance of including private financing as part of the

procurement⁷ relate to the role of the banks in adding discipline, both in terms of due diligence on bids and incentives for performance. We believe that this is an issue that merits further work by the Scottish Executive – for example to monitor the outcome of the pilot projects proposed by HM Treasury to assess the value of public funding with private sector credit guarantees⁸.

Bringing forward investment

The widespread perception of the respondents to our survey is that PPP provided a mechanism to bring forward investment in new infrastructure at a time when large-scale investment in essential infrastructure was needed. How do we explain these observations, and are they consistent with Government's general approach which suggests that procurement choice should be based on value for money considerations?

Again the scope of the study has not included time to explore these issues in detail. However, on the basis of information provided to us by the Scottish Executive, our understanding is that these responses are an accurate representation from the perspective of public sector managers in local authorities, hospital boards and within the water and sewerage sectors at that time.

The clear implication is that the existence of PPP did allow local public managers to 'bring forward' investment compared to what would have been achieved within the constraints of public capital. We therefore believe that, when the contracts in our Survey were let, public sector managers may have been constrained in relation to the procurement choices available to them. This does not necessarily suggest that the PPP projects undertaken were poor value for money. Indeed, authorities were still required to demonstrate value for money compared to the alternatives. There are of course separate issues which we have not considered here around the robustness of public sector comparator analysis. Nevertheless our survey suggests that the majority of authorities considered PPP to represent good or excellent value for money.

There are two important points to note:

First, the perception of 'bringing forward' investment at the local level is entirely consistent with central control of the levels of investment taking place within Scotland (and indeed within the rest of the UK). Just as public capital is constrained centrally so was the extent to which local authorities and other public sector bodies could use PPP (e.g. by the amount of LPFS support available in the case of local authorities).

Second, these conclusions do not necessarily still hold. Indeed, we understand that the new 'prudential borrowing' regime within local government means that public sector managers will be able to take decisions on procurement options based primarily on value for money concerns.

⁷ Design, build, finance and operate (DBFO) as opposed to design, build and operate (DBO)

⁸ PFI: Meeting the investment challenge (HMT), July 2003

Conclusions

The evidence supports the strong view that PPP transfers construction risk to the private sector more effectively than historical procurement methods and is likely to deliver value for money where there is strong competition and the projects are large. This is clearer in certain sectors, for example water, than in health. Our survey confirmed that the well known problem of transaction costs for smaller projects is also an issue in Scotland.

There is not yet enough evidence to conclude whether PPP transfers post-asset completion risks any more effectively than conventional procurement. This should be a focus for future research. The issue is whether the potential benefits of PPP, such as whole life costing, are sufficient to outweigh its disadvantages, such as lack of flexibility, and whether there might be variations in the contracting approach that would increase net public sector benefits without losing the benefits of transfer of construction cost risks.

Stage 2 summary

What are the merits of developing the Scottish Executive's central database of information on Scottish PPP projects in order to inform future long-term performance research?

The majority of research on PPPs to date has focused on the procurement and construction stages of the contracts. Whilst we believe that the Scottish Executive can and should put some effort into standardising the collection and management of this information, we do not regard it as the top priority. Our judgement is that the most valuable areas for further work (albeit the most challenging) relate to the operational phase of PPPs.

Procurement and construction

We recommend that the Scottish Executive's central database is extended to collect additional data on the procurement and construction phases of both PPP and non-PPP projects. This will enable real comparisons to be made about the relative benefits of PPP procurement in the areas of competition, timescales, delivery within budget, construction flexibility, risk transfer and perceptions of design quality and innovation. Details of the information that might be collected are set out in Section 7 of the report.

Operations

The Scottish Executive should consider holding some cost benchmarking data centrally to support contract managers involved in benchmarking or market testing exercises (e.g. on the input costs for soft FM).

In general though, we do not recommend that the procurement and construction database is extended to collect operational data at this stage.

Rather, we recommend that the Scottish Executive commissions sector specific studies to assess the relative operational performance of PPP projects. Depending on the level of resources that the Scottish Executive is able and willing to allocate to this, we suggest that this further work might include some / or all of the following three elements:

- A periodic audit of all PFI schemes (say every five years) along the lines of the current work – but also looking in detail at a smaller number of projects within a particular sector.
- Commission detailed studies into some of the specific components of PPP contracts identified in this Study.
- Commission sector specific studies that seek to compare performance across PPP and non-PPP contracts. We recommend that the Scottish Executive might consider carrying out a further, ongoing evaluation of PPP and non-PPP schools – building on the work carried out by Audit Scotland. If possible, this study should involve the identification of small number of standardised performance indicators and cost data that could be collected over time, and be used in a full comparative efficiency analysis of the sample projects.

2. INTRODUCTION

2.1. Background

This report was commissioned by the Scottish Executive to further its understanding of the performance of Public Private Partnership (PPP) projects in Scotland. The main aims of the research were; first, to provide an initial assessment of the relative costs and benefits of PPP procurement in comparison to conventional procurement, and of the underlying causes of good/bad performance and; second, to consider what data on PPP projects might usefully be collected in the future. The Scottish Executive was particularly interested in the operational performance of live projects; 64 PPP schemes are now operational in Scotland in sectors including health, education, transport and water.

2.2. Operational PPP projects in Scotland

Figure 1: Number of operational PPP projects by sector

Sector	Number of operational projects
Health	29
Schools	11
Water and Sewerage	9
Transport	3
Further Education	3
Waste	2
Other	7
Total	64

Source: Scottish Executive, Financial Partnerships Unit

Around half of all PPP projects are in the health sector. The majority of the health projects have relatively small capital value and relate, for example, to providing information systems, waste management services or elderly care beds. Seventy three percent of the capital spend in health relates to the three new hospitals at Hairmyers, Wishaw and Edinburgh. (*Figure 2* below shows capital spend by sector.)

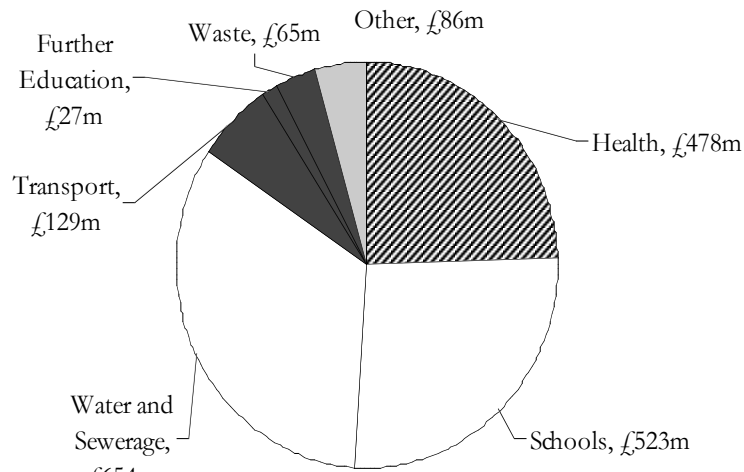
In the schools sector, although there are only eleven projects, the majority of the contracts are for the provision of a portfolio of primary, secondary and special schools; some eighty schools have been built or refurbished and are now being operated under PPP contracts.

Water and sewerage is the largest sector by capital value, accounting for one third of the capital invested in operational PPP projects.

Of the three transport projects, the Skye Bridge contract has recently been terminated by the public sector buying out the private sector contractor, and the same is set to happen for the Inverness Airport project, which will leave the M6 (M74) as the sole operational transport PPP.

Other projects include Kilmarnock Prison, the Police Force Training Centre at East Kilbride, a council accommodation project and several IT systems.

Figure 2: Capital value of operational PPP projects by sector



Source: Scottish Executive, Financial Partnerships Unit

2.3. Methodology

Our research was based on a survey of public and private sector contract managers of those PPP projects in Scotland that were operational at the end of 2004. We sent questionnaires to each authority responsible for a live PPP project (authorities included Health Boards, Councils, the Scottish Prison Service and the Scottish Executive) and to the majority of contractors. We also interviewed public and private sector contract managers for a sample of projects. Further explanation of the methodology we used is set out in Appendix 1. The full list of projects included in the survey is shown in Appendix 2.

It is worth noting the inherent limitations of the interview-based methodology. Interview responses are always subject to bias, especially when the respondents have a vested interest in the projects, which was the case in this study. Project managers might not want to be seen to criticise their own PPPs.

Surveys were sent to 64 (100 percent) public sector and 41 (64 percent) private sector contract managers. Response rates were 56 and 59 percent respectively, covering a total of 41 (64 percent) operational PPP projects in Scotland.

Interviews were conducted with public sector contract managers representing 20 projects, and private sector contractor manager representing 10 projects, covering a total of 25 (39 percent) operational PPP projects in Scotland.

Appendix 1 shows response rates by sector both by number of projects and capital value. We received responses for all projects in the water and sewerage sector. There was a low response rate in the health sector, with the smaller projects in particular failing to return completed questionnaires, although returns were received for each of the three large PPP hospitals. This low response rate may be significant given our perception of more post-completion tensions in the health sector.

Examples of good and bad performance are often specific to a particular project or sector, but wherever possible we have tried to identify the underlying causes of the issues raised, and to draw more general conclusions. We have also tried to identify how outcomes might have differed under conventional procurement, based on the views of those responding to the survey or interviews, most of whom had experience of both types of procurement. Very few projects of comparable size and era to those procured using PPP have been procured using conventional methods, and we have not sought to compare quantitative data across different types of procurement.

It is important to note that, since only those projects that are now operational were included in the survey, our findings are based on data from Scotland's earliest PPPs, procured before 2000. Many of the lessons learnt from these early projects have been applied to more recent projects. In particular, there is far greater contract standardisation and central guidance now than was the case in the late 1990s.

Our research was carried out over a ten week period from December 2004 to March 2005. It covered a wide range of topics, across all sectors where there are operational PPPs. Given this scope, we are only able to give an initial assessment of the relative costs and benefits of PPP procurement in comparison to conventional procurement. But we think that our research has identified some interesting areas in which the Scottish Executive might want to carry out further research with the aim of supporting authorities managing PPP contracts and informing decisions about future contractual arrangements.

2.4. Report structure

Sections 3, 4 and 5 present the evidence from the survey and our assessment of it grouped according to the main phases of PPP projects: procurement, construction and operations. Section 6 presents the survey evidence on value for money issues. In each section we have sought to separate the reporting of the survey evidence from our interpretation.

Our conclusions on stage 2 of the research project, the data on PPP projects which might usefully be collected in the future, are given in Section 7.

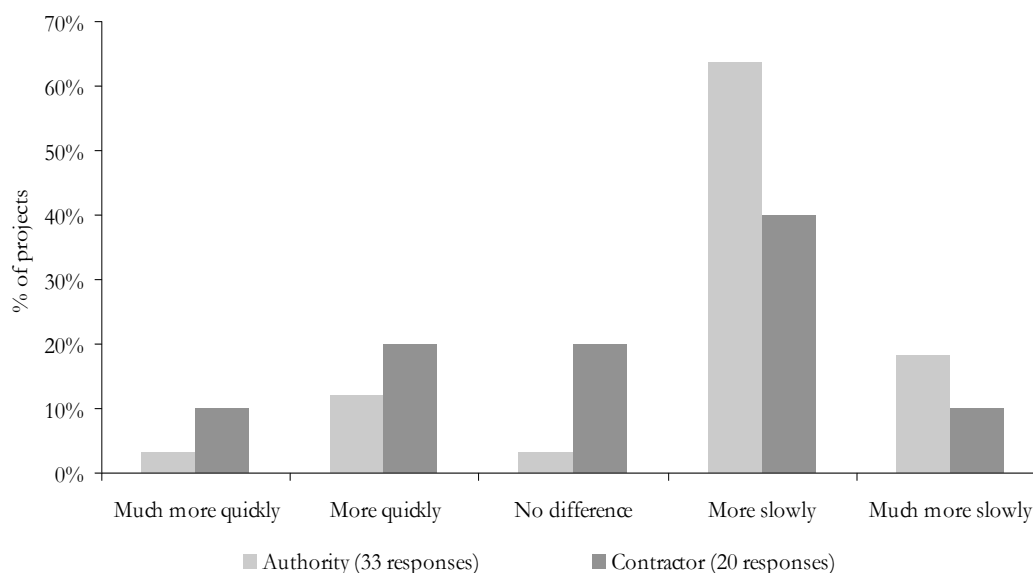
3. PROCUREMENT

3.1. Procurement timescales

The mean time taken to procure PPP projects was 28 months, which is generally perceived to be slower than non-PPP procurement.

The mean time taken to procure the PPP projects included in the survey (i.e. the time from issue of the OJEU notice to financial close) was 28 months. Most authorities thought that PPP procurement was slower than alternative methods. Most contractors also perceived PPP procurement to be slower, although 20 percent of contractors believed that there was no difference from conventional procurement. The differing responses from authorities and contractors may reflect the fact that authorities commit a considerable amount of time to developing PPP projects in the period after issuing the OJEU notice, but before detailed bids are invited from contractors.

Figure 3: Are PPP projects procured more quickly or more slowly than non-PPP projects?



The length of time taken to develop a project from the initial strategic planning stage through to the agreement of a contract with the private sector affects the speed with which new public services are delivered, and the short-term costs accruing to both the public and private sectors.

One of the main benefits of PPP has been the discipline imposed on the public sector to specify its requirements clearly and up-front. Detailed design work carried out during the procurement phase of PPP projects often would have been included in the construction phase of conventionally procured projects. Although a short procurement process is desirable, bringing design work forward at the expense of increasing the procurement period is not necessarily a bad thing.

The involvement of lenders in PPP contracts generally results in more due diligence being carried out during the procurement phase than is the case for conventional procurement, and this increases the time taken. Similarly, longer contract lengths for

PPP projects (typically 20 to 30 years) mean that both public and private sectors invest more time up-front to ensure that the contract meets their requirements and allocates risks appropriately.

3.2. Procurement costs

The procurement process is expensive, and represents a greater burden for smaller projects.

The median cost incurred by authorities for external advisers was £750,000. Contractors reported much higher median costs of £2,800,000 (although only six contractors provided information).

The average cost of authorities' advisers as a percentage of capital cost was 3 percent, and the range was 1 percent to 9 percent. Higher percentages generally related to the smaller projects, reflecting the fact that costs do not vary much with project size. In interviews contractors commented that it was difficult to justify bid costs for projects with capital value below £40 to 50 million. In the schools sector, bundling projects has successfully reduced authority costs as a percentage of capital investment; average authority costs in this sector were 2 percent of capital costs.

Where bundling projects is possible, this can reduce the relative size of the authorities' costs. It would be worth considering whether more bundling of projects is possible, in particular in the health sector, if further small capital value projects are proposed.

Contractor costs are ultimately passed on to the public sector. Competitive pressure should drive these costs down, within the constraints of the bid requirements. Costs might be reduced further through the use of exemplar designs or standard contracts, by postponing due diligence requirements until later in the bidding process and, as discussed above, by bundling projects. These options must be weighed against their impact on value for money.

3.3. Competition

PPP contracts typically last for thirty years, with relatively limited opportunities after contract signature to test or re-tender the total price paid by the authority over the life of the contract (see Section 6.3 below on benchmarking). It is therefore vital for the authority to satisfy itself that it has achieved the best possible value for money at the point it lets the contract. We looked first at the number of bidders for each project, which provides a good indication of the authority's success in creating effective competition (Section 3.3.1). We also looked at price movements in the period after the authority had chosen its preferred bidder (Section 3.3.2). During the preferred bidder stage, although the authority generally has the right to re-introduce the second placed bidder, it rarely exercises that right. Competitive tension is greatly reduced, and it is important to ensure that price movements are closely monitored.

3.3.1. Number of bidders

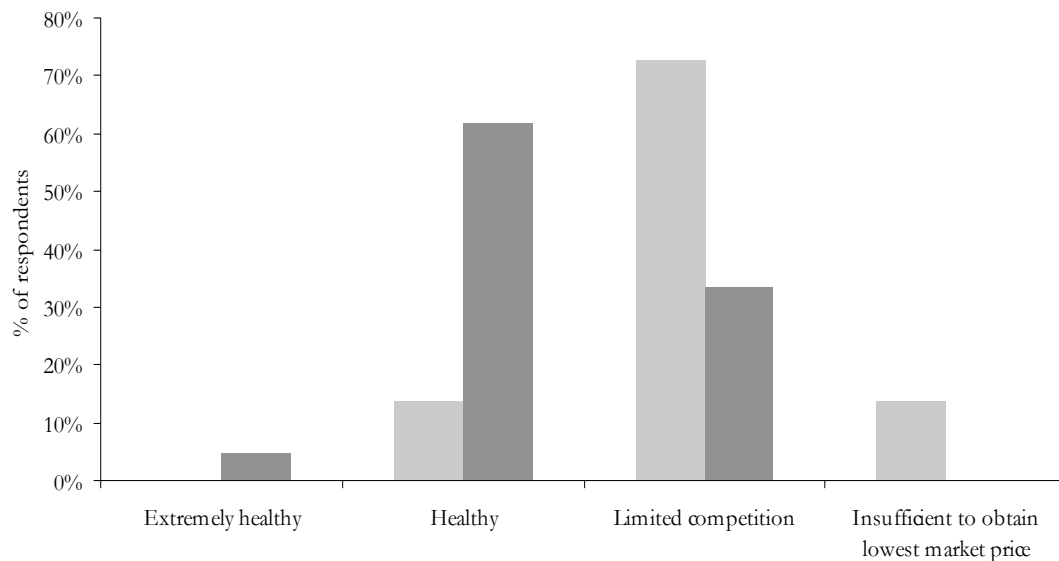
Authorities ran effective competitions for the projects surveyed. Although the level of competition has reduced over time, it is still sufficient to deliver value for money.

On average nine pre-qualification submissions were received per project, indicating strong competition. The minimum number of bids received was two, and this only occurred in one case. Pre-qualification for the projects in this survey, all of which are now operational, took place between 1995 and 2000⁹. There is no evidence of a downward trend in the number of bids per project received during that period.

Fewer pre-qualification submissions were received in the health sector than in other sectors, possibly reflecting the relatively low capital values of many of the projects.

When considering the current situation, authorities and contractors alike said that they believed that the number of pre-qualification bids had fallen in recent years (see *Figure 4* below). Authorities had some concerns that this meant that there was now limited competition and three respondents thought that competition was insufficient to obtain value for money. Contractors noted that the reduced number of bidders was partly due to the scale of recent projects, with smaller contractors unable to compete and the field reduced to the serious contenders.

Figure 4: Do you believe that there is currently a healthy level of competition for PPP contracts in your sector?



In our view, provided that the number of pre-qualification submissions from consortia that demonstrate the technical, financial and commercial capacity to complete the project does not fall below two to three genuinely competing bidders, there remains sufficient competition to demonstrate value for money. Where there is evidence of very little competition, at worst a sole bidder, or two bidders but a suspicion that one has agreed to drop out late in the game, then a lot more attention must be given to pre-bid value for

⁹ 1989 in the case of the Skye Bridge project, which was a PPP style project but preceded the private finance initiative.

money. The greater self-selection of bidders can benefit authorities as it reduces evaluation costs incurred reviewing non-credible submissions.

Lack of co-ordination between projects inhibits competition.

In interviews, contractors commented on the lack of co-ordination between projects. Given the resources needed to bid, they said that they chose carefully which projects to go for, and then expected to bid aggressively for those projects. This approach by contractors should ensure that authorities receive good value for money, although it is important to ensure that there is no collusion between contractors over which projects each will bid for (there is no evidence or suggestion that this has happened to date).

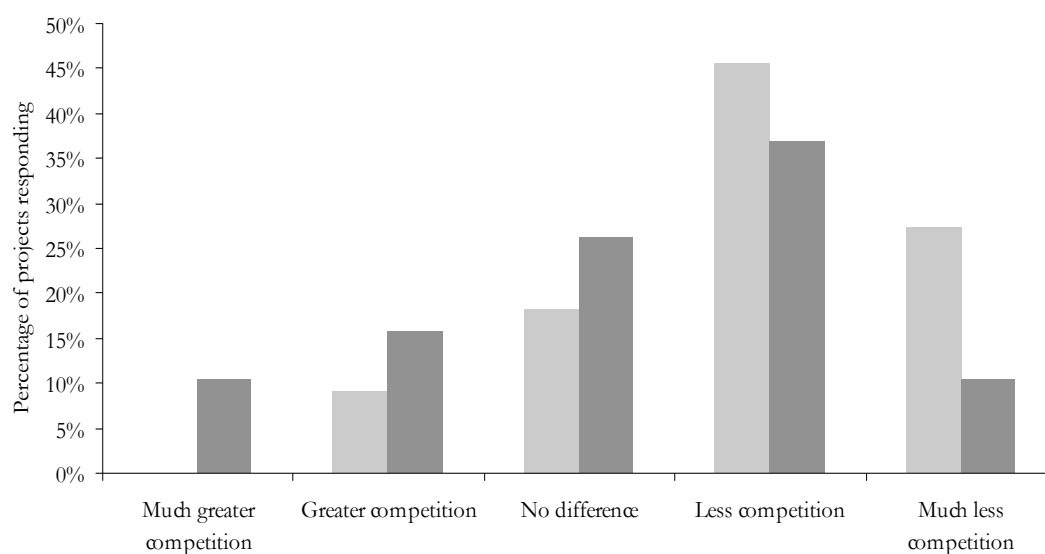
The Scottish Executive already provides information on its website about the PPP project pipeline. But Scottish PPP projects compete with PPP projects around Europe, as well as with other construction work, in particular regeneration work taking place in Scotland. In addition to capacity constraints in the construction industry, there may be constraints on the number of PPP projects that the SPV management teams within construction and maintenance companies can take on. In interviews, authorities noted that, as the SPV shareholders' portfolio of projects grew, they were committing less time to the earliest projects. It was not clear from our discussions the extent to which constraints on bidding and construction capacity were physical constraints, or the result of relatively low capitalisation and therefore inability of companies to take on more risk.

Recommendation: The Scottish Executive / Departments / Local Authorities should continue to monitor the number of pre-qualification submissions received from credible consortia for new procurements to satisfy itself that competitive tension is being achieved.

There is perceived to be less competition for PPP projects than for non-PPP projects.

73 per cent of authorities thought that there was less or much less competition for PPP projects than for non-PPP projects (see *Figure 5* below). This is probably partly explained by the fact that non-PPP projects tend to be smaller and therefore there are more contractors who have the capacity to take them on. But the general perception was shared by a health board with recent experience of procuring new large-scale assets under Design and Build contracts rather than PPP contracts; they believed that construction companies were more eager to bid for their work than for comparable PPP contracts coming to market at the same time.

Figure 5: How do you think competition for PPP contracts currently compares with competition for non-PPP contracts?



3.3.2. Price movements between selection of preferred bidder and financial close

On more than half of projects, the price changed at the preferred bidder stage because of a change to the design or service specification.

Based on responses from authorities and contractors, the price moved on 69 percent of projects (24 projects out of 35 that responded), with a total of 66 individual price changes reported. *Figure 6* and *Figure 7* below show the reasons for the changes and who initiated them. In the majority of cases the design changed and there was also a change to the services specification. Other reasons for price changes included correction of errors in the financial model, cost increases following funder due diligence, cost increases to compensate for delays in reaching financial close and the impact of negotiation by the authority.

Figure 6: Changes to the contract price

Reason for price change	Number of price changes
Interest rate change	15
Design specification change	20
Services specification change	18
Other changes	13

Changes were only initiated by the contractor in 4 cases. Most of the time the authority led the change or it was jointly agreed.

Figure 7: Who led the change?

Price change led by...	Number of price changes
Authority	14
Contractor	4
Both Authority and Contractor	32

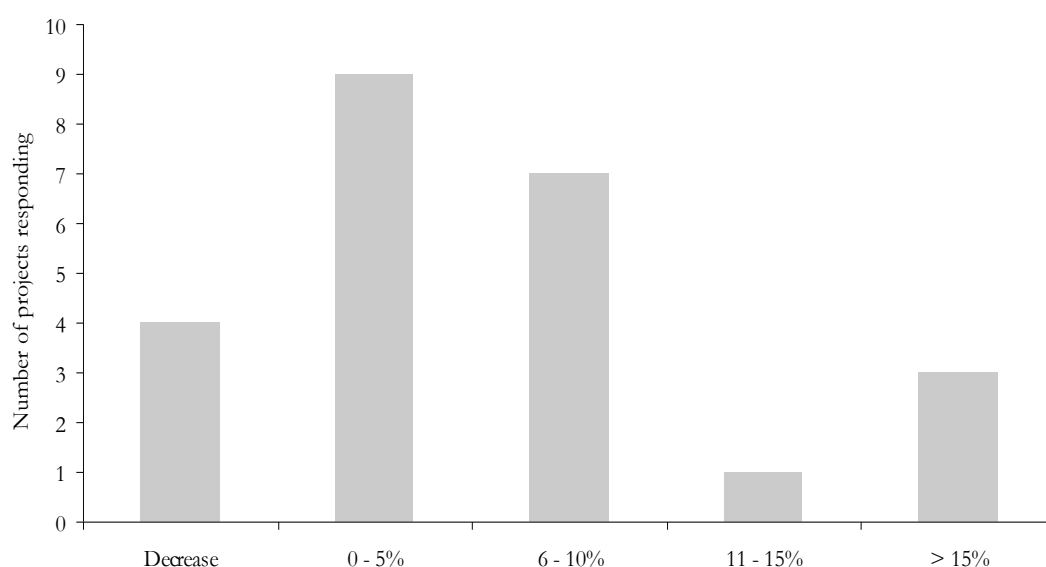
Note that several respondents stated that there was a price change but did not state who led the change

The PPP procurement process aims to limit movements in the contract price during the period between selection of a preferred bidder and financial close. This is to ensure that value for money achieved during the competitive phase of the project is not eroded. Typically the interest rate risk during this period is retained by the public sector since it would not be cost effective to ask the private sector to take this non-controllable risk, and the price is adjusted to reflect any changes according to a pre-agreed mechanism¹⁰. Significant price changes at this stage which are triggered by a change to the design or to the services specification need to be minimised, and evaluated carefully to ensure that value for money is achieved in these non-competed additions to the original specification.

The scale of price changes appears significant and should be monitored.

Figure 8 below shows the price movements recorded at preferred bidder stage as a percentage of contract NPV. The price increased by more than 5 percent in 11 of the 24 projects where the size of the change was reported.

Figure 8: Percentage change to the NPV of the contract



The scale of the price movements at preferred bidder stage could raise concerns about value for money, since the only competitive pressure at this stage of procurement is the

¹⁰ The public sector may be more exposed if the project will be bond-financed since, unlike in the case of bank debt, the margin on the bond is not pre-fixed.

relatively weak threat that the second placed bidder could be re-introduced into the competition (or, perhaps, the threat of cancellation of the procurement process). Note, though, that we are not able to identify separately the percentage change that related to interest rate risk taken by the authority and it is quite possible that an increase in interest rates, of say 1 percent, could increase the NPV by more than 5 percent¹¹.

It is certainly better to agree changes at this stage rather than post financial close. But authorities should aim to introduce any design or service changes before inviting best and final offers, and the Scottish Executive should monitor the scale of changes at preferred bidder stage. As the use of standard contracts increases, and authorities' experience in developing designs and service specifications grows, we would expect to see the size of price changes made after selection of a preferred bidder decreasing, other than those relating to changes in the interest rate.

Recommendation: The Scottish Executive should continue to monitor the size of and reasons for price changes that happen during the procurement period.

¹¹ For example, increasing the interest rate from 7 percent to 8 percent would increase each annual repayment on a 25 year annuity by 9 percent. Even after discounting at 6 percent real, the increase in NPV could well be greater than 5 percent.

4. DESIGN AND CONSTRUCTION

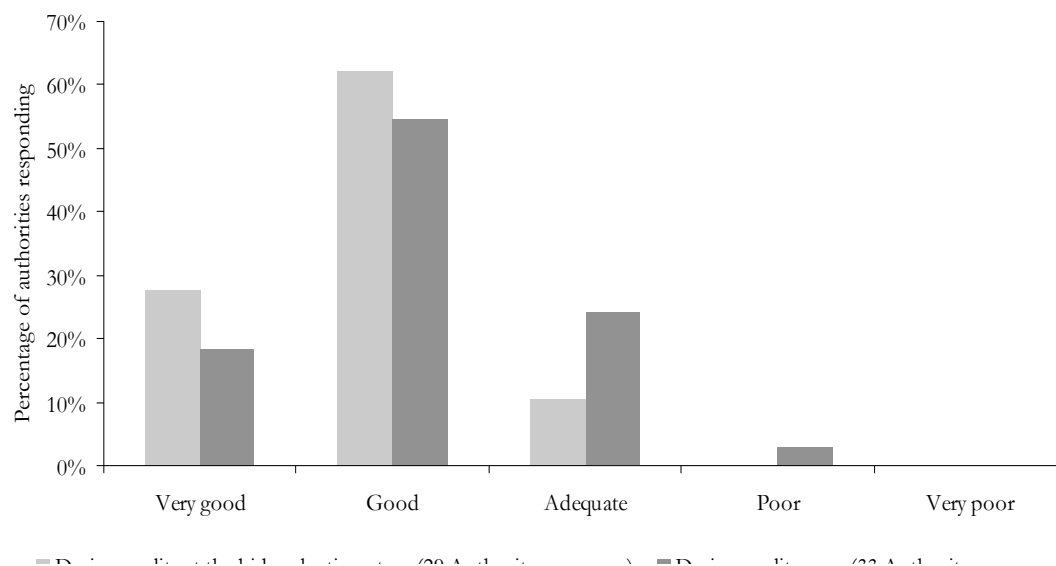
4.1. Design

4.1.1. Design quality

Authorities are generally happy with design quality.

73 percent of authorities who responded rated the design of their project as good or very good (see *Figure 9*). There was only one project, in the water sector, where the authority rated the design as poor; this was due to technical performance failures and difficulties in operating and maintaining the plant as designed. In this case payments were deferred until the issues resulting from the poor design had been resolved; the public sector might not have had the same protection under conventional procurement .

Figure 9: Authority perception of design quality, at evaluation and now.



There has been little change in authorities' positive opinions about the quality of design between bid evaluation and the operational phase. This might reflect the fact that many authorities were closely involved in scrutinising the designs and commenting on them at the bidding stage. Indeed, it is worth noting that the responses to this question from both authorities and contractors are likely to be biased, and a wider survey including users and professional architecture and design bodies might have given different results.

In interviews, some contractors commented that design briefs were becoming increasingly prescriptive. But this should be set against the increasing experience of authorities in commissioning new buildings and the impact of standardising design on reducing bidding and procurement costs. Contractors have the opportunity to submit variant bids if they believe that an alternative design solution will offer better value for money.

It was not possible to judge what the impact of PPP procurement as opposed to conventional procurement had been on project design.

User feedback

User feedback is generally positive, but more user surveys could be carried out.

20 projects reported that they had evidence of feedback from users. Feedback mechanisms included formal surveys, comments from user groups, anecdotal feedback from employees and users, and complaints procedures. In some cases, positive feedback was inferred from a lack of complaints. The majority of feedback about design was positive.

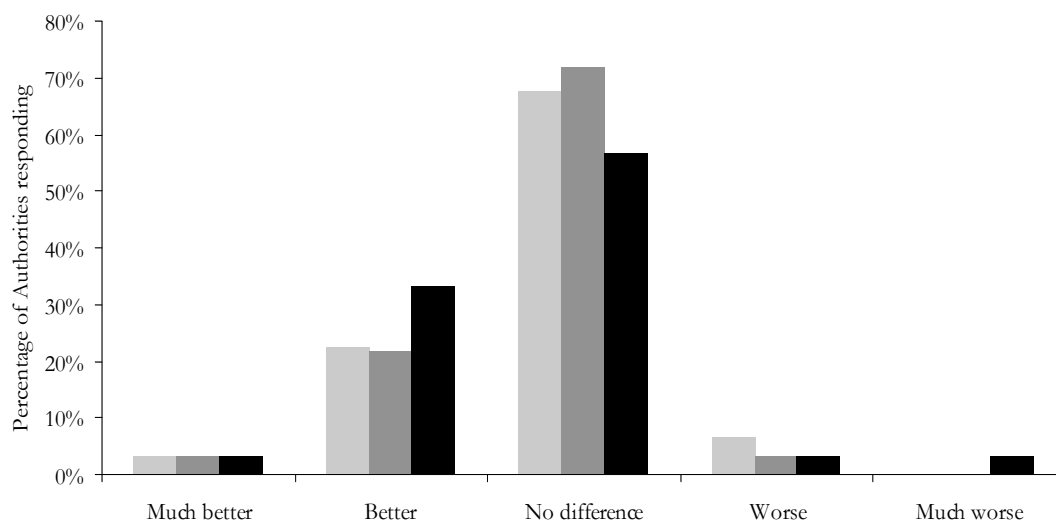
Recommendation: Authorities should ensure that formal feedback systems, for example user surveys, are in place.

4.1.2. Building performance compared with non-PPP projects

PPP projects are perceived to perform the same as, or slightly better than, non-PPP projects with respect to aesthetics, functionality and environment.

Figure 10 shows authorities' views on the relative performance of PPP projects. Most authorities did not perceive a difference in aesthetics, functionality or environmental performance between PPP and non-PPP projects, although some believed that PPPs perform better.

Figure 10: Comparison of PPP and non-PPP projects with respect to aesthetics, functionality and environment



Where authorities believed that PPP had delivered a better solution, they ascribed this to the impact of life-cycle maintenance and hand-back requirements on the design approach, the impact of transferred utilities risk on energy efficient design, and the output-based specification allowing greater scope for imaginative and individual aesthetic design. Where authorities did not perceive a difference, they commented that building standards and the environmental and functional specification provided to the contractor

would be the same whatever the procurement method, and that they would have expected to have had the same input into the design whether PPP had been used or not.

4.1.3. Design tools

Formal design evaluation tools were not used.

Only one project reported that the Quality Indicators in the Design of Schools (QIDS) tool had been used for evaluation, the remainder of projects had used expert panels to evaluate the design but had not used generic design tools. The majority of projects surveyed were evaluated before formal evaluation tools were developed. Several authorities commented that the involvement of users, for example clinicians in hospital projects, had helped to develop the functionality of designs and to improve user satisfaction once the asset was operational.

4.1.4. Innovation

There is evidence that PPP stimulated innovation, although contractors are more positive than authorities about the impact.

Contractors were more positive than authorities about the innovation demonstrated in the projects surveyed: 39 percent of contractors believed that they had shown considerable innovation, only 25 percent of authorities agreed. 31 percent of authorities thought that there was no evidence of contractor innovation. In part this reflects the authorities' considerable involvement in the development of designs, and their view that they should share the credit for some innovations claimed by contractors.

Innovations noted included energy efficient designs driven by the transferred risk around energy performance and, in the schools and further education sectors, flexible layouts, and innovative location of and access to community facilities. Also in the schools sector, one contractor delivered a new building in place of the refurbished building proposed by the authority, while remaining within the affordability budget.

There was little evidence of innovation in building techniques in accommodation projects. By contrast, in the water sector there was considerable evidence of technical innovation with the introduction of techniques new to Scotland (for example "bendy channel" grit removal, Cambi sludge treatment and tertiary UV treatment) and of rigorous options analysis resulting in redesign of the authority's proposed systems - in some cases combining treatment plants, in others carrying out more treatment locally.

4.2. Construction timescales

The proportion of projects delivered on time shows an improvement over historical experience in traditional procurement but there were more delays than reported in the NAO's 2003 study.

In the NAO's 2003 study, 'PFI: Construction Performance', 76 percent of the projects surveyed were ready to use on time or early and 92 percent were delivered within 2

months of the target date, an improvement over historical experience¹². In our survey, of the 40 projects where data for the construction phase was provided, 28 (70 percent) were delivered on time or early and a further 3 were delayed by 2 months or less.

Timely construction completion is particularly important in the schools sector, where the target date is generally arranged to ensure that the new asset is ready at the start of a school term. In the case of 7 of the 9 schools PPP projects that responded to the survey, all of the assets were available for use on time. In relation to the 2 projects where there was a delay, one was due to the authority's change of requirements. In the case of the other project, half of the schools in the portfolio had been completed by the required date and the remainder were completed within three months.

Of the 9 waste water projects included in the survey, 3 were delivered late and another, although delivered on time, did not initially meet its performance test requirements. Some of the longest delays (7 and 8 months) were observed in this sector. In the majority of cases the facilities were working to some extent during the delay period.

In all 12 cases where there was a delay in the asset being available for use (other than where the delay was due to an authority change of requirements), the authority was able to delay payment of the whole or part of the unitary charge and, in a few cases, claim compensation for the delay. (In the water sector bonuses were paid in 3 cases for early completion.)

Although, under PPP, the public sector does not normally pay for assets until they are ready for use, it is still important that agreed delivery dates are met, both to fit in with any plans for transition from previous assets, and so that the economic benefits of the project are realised as envisaged in the business case. While the results of our survey demonstrate an improvement over conventional procurement, it is disappointing that the proportion of projects delivered on time in Scotland is lower than reported in the NAO's study. Despite this, and although around a third of projects were late, the contract incentives to deliver on time do appear to be working, with the mean delay only 5 months, and the maximum delay 11 months, which compares favourably with overruns in traditionally procured projects.

It is not clear though that these improvements are unique to PPP projects, and it might be possible to achieve similar results using Design and Build contracts, if upfront specifications were developed to the same level as in PPP projects and an element of the payment were linked to timely completion. There might also be greater scope to include liquidated damages for delays, which are standard in Design and Build contracts, in PPP projects.

Resolution of minor snagging caused frustration for authorities.

In interviews, several respondents discussed frustrations over minor snagging, which had not prevented the asset being deemed available for use but nevertheless needed to be resolved. If minor snags had not been resolved before the SPV's construction contractor

¹² The NAO 2001 'Modernising Construction' report found that some 70 percent of projects were delivered late.

had left the site, then authorities found that it was difficult and time-consuming to get them remedied. We understand that there are contractual remedies, in current contracts at least, which (i) allow the authority to serve a notice on the contractor requiring the works to be carried out; and (ii) after a certain period, if the works are still outstanding, enable the authority to make payment deductions and / or carry out the works itself and claim costs from the contractor. Nevertheless, given the number of authorities that raised this issue, we think that it would be useful to review whether the latest contracts provide appropriate incentives to resolve snagging issues.

Recommendation: Further research should be carried out to review whether the contractual remedies relating to snagging provide appropriate incentives to contractors to resolve these issues.

4.3. Construction related price changes

PPP projects delivered increased price certainty compared to traditional procurement but there were more price movements than reported in the NAO's 2003 study.

Of the 37 projects for which data was available, 18 (49 percent) had experienced no price change for any reason during the construction phase of the project. This represents an improvement over historical performance¹³ with conventional procurement but price certainty had reduced compared with the 2003 NAO survey 'PFI: Construction Performance' which found no price change in 70 percent of projects.

Figure 11 and Figure 12 below show the reasons for the changes and who initiated them.

Figure 11: Changes to the contract price during construction

Reason for price change	Number of price changes
New facilities	6
Extensions or enhancements to facilities	15
Change in function	5
Refurbishment work	1
Design change	15

Changes were only initiated by the contractor in 2 cases. Most of the time the Authority led the change or it was jointly agreed.

Figure 12: Who led the change?

Price change led by...	Number of price changes
Authority	13
Contractor	2
Both Authority and Contractor	7

¹³ The 2001 NAO report 'Modernising Construction' found that the 73 percent of government construction projects ran over budget.

Note that several respondents stated that there was a price change but did not state who led the change

PPP aims to give the public sector price certainty in construction projects. Although the survey results indicated that there were changes in around half the projects, interviewees commented that the PPP contract encouraged minimisation of changes, and forced better up-front specification. Some authorities expressed concern that changes were being pushed out into the operating period, even where it might have been more efficient to amend the construction programme. That this is happening was confirmed in interviews with contractors who stated that, given the penalties for late completion, they resisted any changes that would delay the completion date. Although contracts contain mechanisms that allow the contractor to reclaim the additional bank interest incurred by late completion (and hence delayed payments for services) due to an authority initiated change, contractors are very keen to avoid any delay to the completion date. Authorities commented that the formal processes in the contract for agreeing changes enabled the contractor to slow down change requests. Interviewees also noted that changes were typically paid for using one-off payments rather than changes to the unitary charge because of the complexity of agreeing a change to the project financial model.

Where authorities had successfully requested changes during the construction period, they raised some concerns about their ability to demonstrate value for money, given the lack of competition for the additional works (see section 6.2 below on value for money).

Recommendation: Authorities should continue to focus on developing the up-front specification to minimise any changes during the construction period, particularly in the light of concerns about value for money. However there may be a case for streamlining the change procedure for relatively minor changes.

4.4. Construction cost risk transfer

Construction cost risk was effectively transferred to the private sector.

Very few authorities knew the actual construction costs incurred by contractors; only 3 authorities were aware that the contractor's actual costs had been higher than envisaged at financial close. 8 out of the 13 contractors who were prepared to disclose information about outturn costs stated that costs had increased. The most common reasons for construction cost increases were unforeseen ground conditions, environmental issues, weather, public interventions and supply difficulties. Note that these risks were not always transferred under other forms of procurement.

The PPP process is designed to transfer almost all construction cost risk to the private sector and avoid increases to the construction price after contract signature. This was perceived to be a weak area for previous procurement methods. While the survey results indicate that very little open book accounting is taking place¹⁴, they provide good evidence that the construction cost risk transfer envisaged in the contract is working.

¹⁴ It was not clear whether this reflects the fact that contracts do not allow authorities access to information or that authorities are not exercising their rights.

4.5. Impact of PPP procurement on construction timescales and budget

PPP provides strong incentives to deliver the asset on time and to budget.

Respondents were asked for their views on the impact of PPP on construction timescales and budget. The most frequently repeated comment was that PPP projects are more likely to be completed on time and within budget, because of the powerful incentive of withholding payments until completion of the asset.

Several respondents commented that the total time for procurement and construction was longer for PPP projects.

Several respondents said that they thought the bid price for PPP projects tended to be higher than for non-PPP projects, but that this reflected the risks transferred. Some commented that the total outturn price of PPP projects was lower or the same as non-PPP projects (taking into account budget overruns on traditionally procured projects).

It was noted that the pressure to meet the agreed timetable in PPP projects led to reduced flexibility to changes during the construction period.

5. OPERATIONAL PERFORMANCE

5.1. Standard of service

Most authorities were happy with the standard of service, but hard facilities management services rated relatively poorly.

Figure 13: Standard of service

Service	% rating service 'good' or 'very good'	% who consider service 'meets expectations' or 'exceeds expectations' ¹⁵
Availability	91%	91%
Soft FM	73%	86%
Hard FM	58%	70%

Almost all authorities were happy with the availability of the asset. In most PPP contracts, availability is by far the most significant factor used in calculating the public sector's payment to the contractor, and this financial incentive appears to be working effectively to encourage good performance in relation to availability. Authorities were less happy with soft facilities management (FM) service standards (cleaning, laundry, catering etc.) and even less happy with hard facilities management service standards (building repairs etc.). In general, interviewees noted that performance was best in those areas where the financial penalties could be made to bite.

Respondents noted that the quality of soft FM service is dictated by the terms of the contract and is not inherently better or worse because the operator is providing it under a PPP contract – although in some cases it is better because the impact of PPP has been to increase the budget. One interviewee pointed out that authorities may be very happy with the standard of service because their main point of comparison is the service at older, non-PPP facilities. It is extremely difficult for authorities to judge whether the service at PPP facilities is as good as it could be given the new assets and the service levels set out in the contract.

Unhappiness with soft FM provision generally related to lack of flexibility (see section 5.5 below). The other source of unhappiness, raised in several interviews, was the quality of cleaning, and many authorities cited cleaning reports as the most important performance indicator. There were particular issues with cleaning in some parts of Scotland where contractors had under-estimated the buoyancy of the local employment market and had struggled to maintain staff. In some cases authorities had exercised their right to step in and carry out one-off cleaning services themselves, passing the costs on to the contractor. This is a good example of the contractual remedies working effectively to ensure the required service to the end users, but is frustrating for authorities. In some contracts there is the opportunity to bring cleaning in-house as part of a benchmarking exercise, but this leads to issues over the interface between hard FM and soft FM (for

¹⁵ Only 2 respondents considered that the service exceeded expectations.

example, using appropriate cleaning products on the floor so that it sees out its expected life).

Issues around heating and cooling were also raised by a number of interviewees. Although contracts include requirements about allowable temperature ranges, it is difficult and time consuming for authorities to build up evidence of a breach. The temperature can differ within one availability area, and can change rapidly over time – in most cases the contractor has a period of several hours to remedy any service failure and so repeated monitoring is needed to demonstrate that the temperature has not been corrected.

Unhappiness with hard FM provision typically related to the fact that repairs often required input from the SPV's off-site staff and therefore took longer. In interviews several authorities commented on the fact that the SPV structure caused frustrations when the on-site FM contractor needed to refer issues back to the SPV for decision or for action by another consortium member. Repairs which the authority considered to be minor (and therefore expected to be resolved by the on-site soft FM team) were sometimes bundled together and classed as a major repair, taking longer to be carried out.

At this relatively early stage in projects' operational phases, most of the issues about repairs raised in interviews related to snagging issues left over from the construction phase rather than to life-cycle maintenance. (Project managers in the water sector seemed happier with the transfer of the interface from construction to operations.) Interviewees noted that it was too early in the operational period to form judgements on whether life cycle maintenance was being carried out effectively.

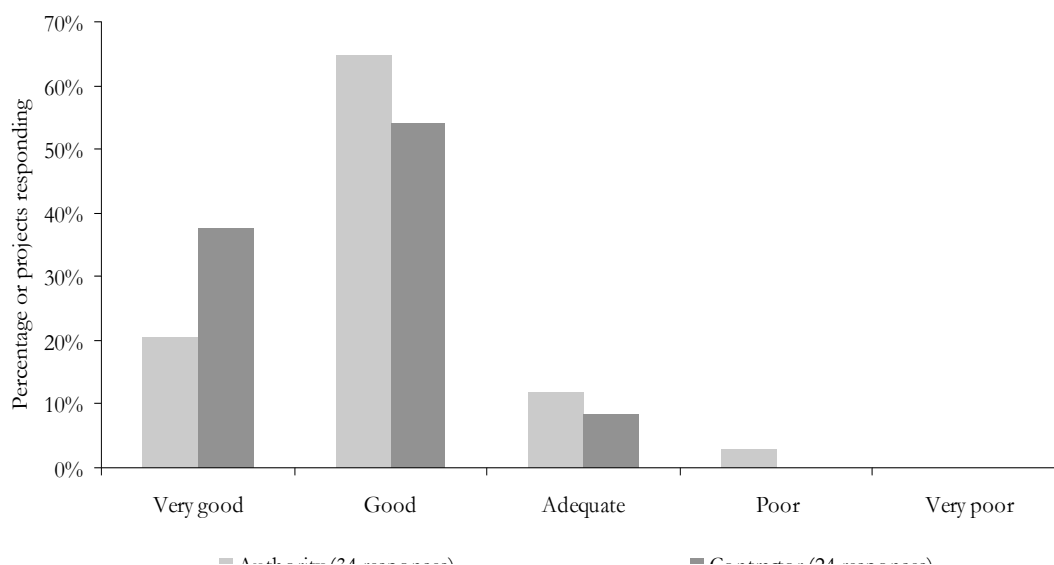
Recommendation: The Scottish Executive could consider carrying out further research in the area of hard FM provision, with the aim of producing best practice guidelines for authorities and contractors and informing the terms of future contracts.

5.2. Relationship between authority and contractor

The 2001 NAO report 'Managing the relationship to secure a successful partnership in PFI projects' concluded that PFI projects need to be approached in a spirit of partnership, that a successful partnership needs to be established at the outset and that having staff with the right skills is critical to good contract management.

The majority of relationships between authorities and contractors are good.

Figure 14: Current view of authority contractor relationship



85 percent of authorities and 92 percent of contractors said that their relationship was good or very good. There was very little change between the original and current views of the relationships between authorities and contractors, indicating that both parties have made strong efforts to adopt a spirit of partnership from the outset.

Our interviews revealed that while generally, as reported in the questionnaires, relationships between authorities and contractors are good, some authorities do find it frustrating that they need to spend a great deal of time debating interpretations of the contract requirements and maintaining the pressure on contractors to comply with the contract. This was particularly evident in the health sector, probably reflecting the complexity of the interfaces between the private sector, public sector and users in this sector, and the potentially severe consequences of, for example, a power failure or slippery floor.

It was notable in interviews that relationships appeared to be working better where the authority was responsible for a portfolio of projects and was able to use experience from other projects to make judgements about how to manage the contractor. Managing a portfolio of projects also enables more efficient monitoring, for example a dedicated monitoring team reporting on the cleanliness of a large group of schools, is more effective than relying on head teachers to monitor their own schools, alongside their other responsibilities.

Interviewees noted that the personalities of the individuals involved had a big effect on the ability to develop a successful partnership. They also commented that staff turnover on both the public and private sector sides of the contract was relatively high, although not out of line with wider experience in the sector. Authorities noted that the culture of the major contractor in the SPV had an impact on how the relationship was handled and that it was easier to have a happy relationship where the contractor was profitable.

The contractual disputes resolution procedure had been used, and all disputes reported had been resolved without escalation to the courts.

The disputes resolution procedure had been initiated one or more times on 8 projects and an external adjudicator used on 4 projects. Most disputes related to practical interpretation of contractual provisions. Interviewees commented that it was difficult to find suitably qualified adjudicators, given that PPP contracts are relatively new.

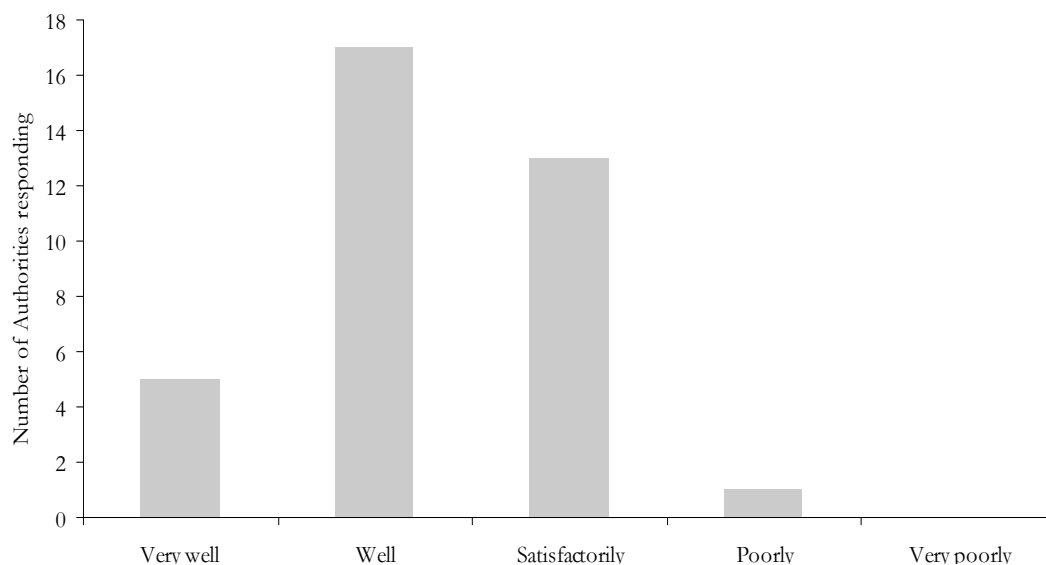
5.3. Performance monitoring

PPP contracts should set out how performance will be monitored, based on output measures.

Performance monitoring mechanisms are satisfactory but improvements could be made to performance indicators.

61 percent of authorities thought that performance monitoring mechanisms were working well or better, 36 percent thought that they were satisfactory, and only 3 percent thought that they were poor (see *Figure 15* below). These results are very similar to the NAO's findings in its 2001 report 'Managing the Relationship'.

Figure 15: How are project and performance monitoring mechanisms working?



Only 45 percent of authorities thought that the performance indicators were wholly appropriate for measuring contractor performance. 52 percent thought that they were partially appropriate and 3 percent found that they were not at all appropriate. Despite this lack of satisfaction with the performance indicators, there were only a few projects where new indicators had been negotiated. This could be due to the lack of contract flexibility or, equally, to the lack of better alternatives.

Based on our interviews, it appeared that performance indicators (KPIs) worked best in sectors such as prisons, transport and water where there were clear KPIs for the whole sector, not just PPP projects. Arguably, these sectors also have less complex interfaces

between the contractor, public sector staff and systems and users. Interviewees in other sectors commented that interpretation of the drafting of performance indicators was often open to discussion. This issue of ambiguity was exacerbated by changes of staff. In some cases interviewees felt that too many indicators were monitored, not all of which were useful.

Some authorities reported that it was difficult to establish the right balance between monitoring and auditing. Several stated that they had not fully understood their monitoring requirements at the outset of the contract. They were concerned that, given the impact of the payment regime, leaving the contractor to self-monitor would discourage him from being proactive in identifying and rectifying faults.

Several authorities commented that they were surprised at the input required on their part to ensure that the contractor delivered the contracted level of service. PPP contracts are typically self-monitoring, with the authority responsible for auditing the contractor's records of service failures. One interviewee commented that, while mistakes in the self-monitoring invariably had to be put down to human error, the mistakes were skewed in the contractor's favour.

Authorities commented that the ultimate threat of default did work to encourage good performance.

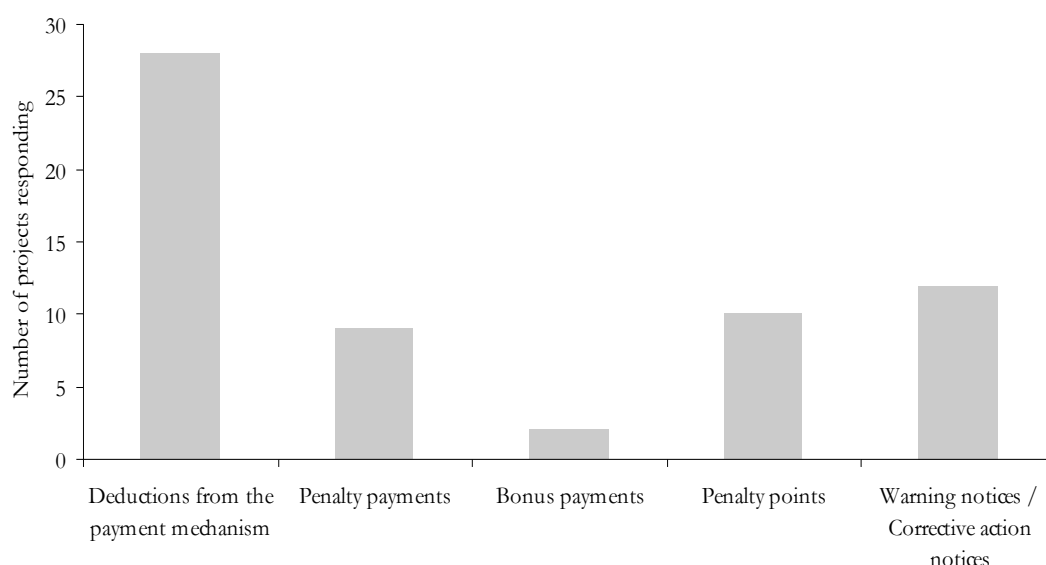
Recommendation: There is a strong case for establishing, for each sector, a relatively short list of performance indicators, enabling comparison between PPP and non-PPP projects. A framework of benchmarking actual performance against periodically restated KPIs and enhanced authority rights to re-tender the contract in the event of persistent shortfalls against KPIs could considerably improve outcomes in the longer term.

5.4. Contractual remedies

Payment mechanism deductions are being implemented on the majority of projects, with some minor relaxations to promote good working relationships.

Out of 32 projects where information was provided in response to questions about the use of contractual remedies, 88 percent had made deductions from the payment mechanism. *Figure 16* shows the contractual remedies used.

Figure 16: Use of contractual remedies



41 percent of authorities said that there had been occasions when the contract allowed them to enforce penalties but they had chosen not to. In most cases authorities said that they had waived penalties when the amounts were small and the consequences were not significant, and they felt that it would promote a good working relationship with the contractor. This approach was taken particularly at the start of the operational period, and on the basis that the contractor accepted that there had been failures and had put in place action plans to resolve matters.

5.5. Service flexibility

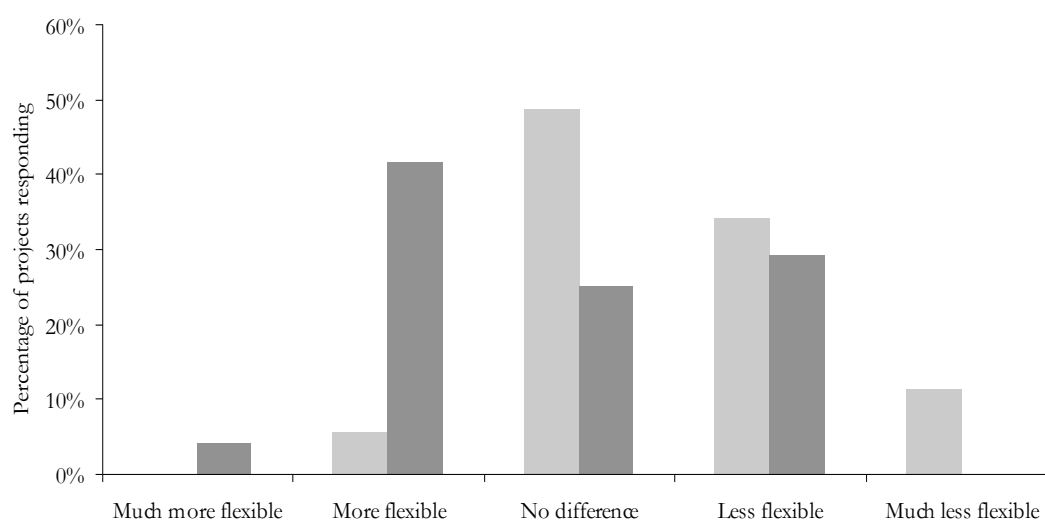
PPP contracts typically contain a mechanism for agreeing changes during the operating period. If the authority wishes to implement a change, it starts by documenting its request. The contract sets out the circumstances in which the contractor is obliged to meet the request, and the process by which he agrees or disagrees to proceed. Assuming that the contractor has agreed to proceed, he presents cost estimates, and there are then further procedures by which the authority accepts or challenges these estimates until agreement is reached.

PPP contracts are less flexible than non-PPP contracts. Where changes have been implemented across a sector they have been delivered later at PPP facilities.

All contracts in the survey contained provisions to change the service specification, and these provisions had been used in 50 percent of contracts. Informal changes had also been agreed in 28 percent of contracts, for example changes to opening times or the use of rooms. Interviewees noted that, where the relationship is good, informal changes can be made between the operational staff and periodically swept up into formal variations. All changes were jointly initiated, or initiated by the authority.

34 percent of authorities considered service levels under a PPP contract to be less flexible than alternative contractual arrangements, for example short-term contracting out, or where the authority itself employs staff to carry out the services. 49 percent thought that the form of contracting made no difference, and only 6 percent considered PPP contracts to be more flexible. By contrast, 42 percent of private sector respondents thought that PPP contracts were more flexible (see *Figure 17*).

Figure 17: How does the flexibility of service delivery compare with non-PPP arrangements?



Although contracts set time limits for each step of the change procedure, the amount of ‘to-ing and fro-ing’ between authority and contractor has meant that changes can be very slow to agree. Several authorities stated that it had taken one year or longer to agree what they saw as relatively straightforward changes. The lack of flexibility in the PPP sector was particularly apparent where changes were being implemented across a sector (for example Patient Line in hospitals, or fresh water drinking fountains in schools) and were introduced later at PPP facilities than those operated by the public sector. Concerns about value for money were a significant factor in the time taken to agree changes; authorities often challenged contractors’ initial cost estimates and requested additional information. Contractors’ perceptions that PPP contracts are more flexible than non-PPP arrangements might result from the fact that there is less need in short-term service contracts than in long-term PPP contracts to include complex change mechanisms.

In interviews both authorities and contractors mentioned that in order to simplify matters, and avoid making changes to the project financial model, they often waited until they could agree a set of changes whose net financial impact would be zero. Refinancing was also seen as an opportunity to push through changes.

Recommendation: Further research should be carried out to look at ways of enhancing flexibility without losing the benefits of PPP, focusing on those sectors where flexibility is a key area (e.g. health).

5.6. Allocation of operational risk

Operational risks are, for the most part, appropriately allocated.

96 percent of contractors and 85 percent of authorities thought that risks relating to the ongoing operation of the asset currently were allocated to the party best able to manage them. Some of the risk allocations in the earliest projects had been amended in later projects, for example vandalism risk was retained by the authority (at least when the asset was in use), and utilities risk was transferred to the contractor.

Interviewees commented that appropriate allocation of risk was most difficult to achieve where there was significant interaction between contractor, authority and users. Materials management in hospitals was cited as an example of a risk that is sometimes transferred to the contractor but can be difficult for him to manage because of the need to interact with NHS IT systems. Allocation of risks relating to cleanliness can be difficult if more than one contractor is operating on the same site. This is a particular issue in Scotland where soft FM is sometimes carried out in house, or may be taken in house or let to a different contractor at fixed points in the contract. The interface between different contractors can then lead to difficulties in determining responsibilities if things go wrong.

Interviewees also commented that cost risks arising from unanticipated behaviour of different users of the asset, for example greater wear and tear caused by more severely ill patients in mental health facilities, were not always clearly allocated in the contract.

The example of Mearns Primary School demonstrates how the transfer of major risks has worked in practice. When the roof blew off one wing of the school, the contractor forfeited a significant amount of its availability payments and was responsible for the entire cost of repairs. Although the council was fully protected financially, it was the council's own staff that responded initially to the emergency, since the contractor's staff were not based locally.

6. VALUE FOR MONEY

6.1. Budgetary issues

87 percent of respondents believed that the use of PPP had brought forward the timing of investment. Many commented that, at the time, they would not have been allocated funding to carry out conventional procurement. Capital budgets were already allocated to more pressing projects, in particular to carrying out essential repairs.

Our understanding is that these responses are an accurate representation of the reality faced by public sector managers in local authorities, hospital boards and within the water and sewerage sectors at that time.

Taking three of the sectors in turn:

- Local authority¹⁶. At the time that the contracts in our Survey were let, the local authority capital regime in place involved, in simple terms: (i) the provision of annual public borrowing consents (together with provision of rate support grant to cover interest and amortisation costs) and; (ii) separate funds to enable local authorities to support PPP payments on a like for like basis – e.g. Level Playing Field Support (LPFS), and the Strategic Waste Fund. Borrowing consents were allocated to local authority on a formula basis, whereas the separate funds were controlled centrally. The impact of this from the local authorities' perspective was to regard PPP as additional capital that could be used from a 'central pot' for projects that were not prioritised for public borrowing consents.
- Hospitals. The treatment of investment using public sector capital or PPP is the same. Both increase the capital charges faced by the NHS Board in line with the increase in the value of its assets. Although capital budgets, set centrally, have increased dramatically recently, we understand that there would not have been sufficient public sector capital available to fund major hospital PPP contracts (such as The Royal Infirmary of Edinburgh) at the time they were procured.
- Water and sewerage sector. In the water and sewerage sector, the majority of PPP contracts relate to improvements in water treatment infrastructure necessary to meet the requirements of the Urban Waste Water Treatment Directive. There was not sufficient public capital to achieve the specified standards by the end of 2000.

32 out of 34 authorities stated that their project was off the public sector balance sheet.

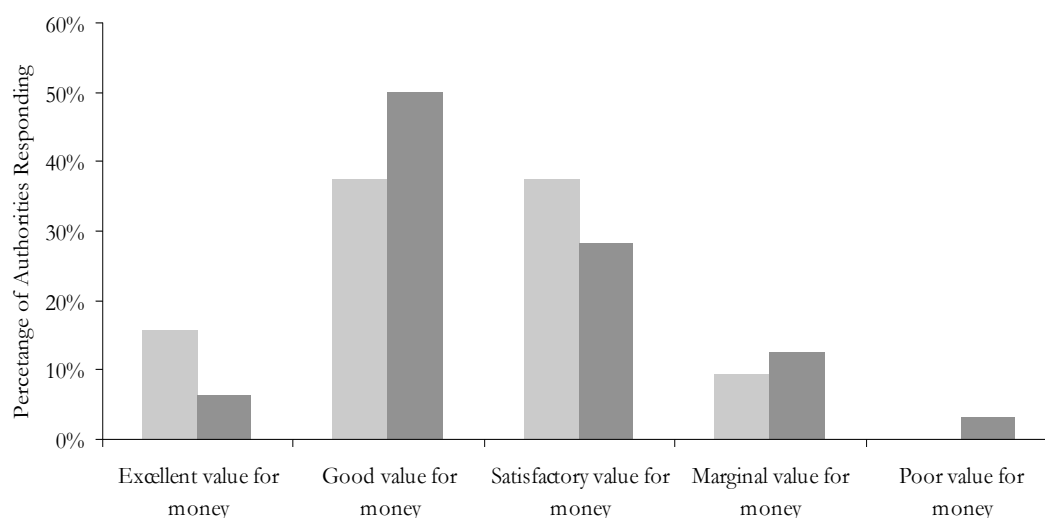
6.2. Value for money

Figure 18 shows how authorities perceived value for money at contract letting, and how they perceive it now. 56 percent of authorities currently believe that the contract offers good or excellent value for money. Only 1 authority thought that the project offered

¹⁶ Local authorities are responsible for PPPs in the education, local transport and waste sectors.

poor value for money; in this case bank interest rates had fallen significantly since financial close, but the project had not been refinanced to the authority's knowledge.

Figure 18: Authority perceptions of value for money.



26 projects out of 31 that responded (84 percent) stated that a Public Sector Comparator (PSC) had been prepared. The median saving versus the PSC was 6 percent; the mean was 13 percent reflecting extremely high savings in a few projects.

13 projects out of 36 that responded (36 percent) said that post-financial close evaluation had been carried out.

In interviews several authorities noted the difficulty of proving value for money in relation to changes, because of the lack of competitive pressure. One authority also commented that insurance costs were significantly higher for PPP projects, which had an impact on value for money compared with conventionally procured projects.

6.3. Benchmarking

Several interviewees discussed the benchmarking process, which is now being implemented for the first time in projects which have been operational for 5 or more years. Benchmarking relies on independent experts to establish a comparator price for each service, as opposed to market testing in which alternative service providers can bid to replace the incumbent. Interviewees commented that there had been issues around interpreting the provisions of the contract and in identifying suitable comparators. One contractor noted that the private sector was starting to organise benchmarking clubs.

Interviewees reported that the outcome of benchmarking exercises to date has been to increase the price paid by authorities. Labour costs, in particular, have increased more quickly than many contractors anticipated in their bids; in the health sector this has been driven by the NHS Scottish Low Pay Agreement. A similar outcome would be expected with conventional short-term outsourcing contracts, where the price would adjust to the market rate at each re-tendering. However, some authorities expressed concern that the

benchmarking process could erode value for money by allowing contractors to make up for any deliberate under-pricing at the bid stage.

Recommendation: The Scottish Executive should monitor the process and outcome of benchmarking exercises in order to inform other projects and future contracts. It should consider how best to support authorities in collating benchmarking data, for example by holding information centrally or by promoting informal networks.

7. FUTURE DATA COLLECTION

Stage 2 of this study requires an assessment of the potential merits of centrally collecting additional performance monitoring information and other data in order to inform future PPP performance evaluations and to provide recommendations on what data should be collected.

In assessing the options available to the Scottish Executive we have considered the following aspects of the issue:

- The extent to which it is possible and valuable to collect information at a central level for the different elements of the PPP structure. Our recommendation is that the Scottish Executive should have different approaches to the construction and operational phases of projects.
- The ‘regulatory burden’ that the provision of information will have on both authorities and contractors. As far as possible the Scottish Executive should use existing information and definitions consistent with those used in NAO surveys and other data collection exercises, such as that being carried out by PUK.
- Whether the information should be collected as part of regular returns submitted by authorities or contractors, or as one-off returns (e.g. at particular phases in the project).
- The availability of non-PPP comparators. One of the key constraints in drawing conclusions about PPPs in this and other studies is the lack of comparable data for non-PPP procurements.
- The quality of key performance data (e.g. KPIs) and cost information. Our judgement is that, for most operational PPPs (with the possible exceptions of prisons, roads and water) there is significant work required to establish a common set of performance indicators. This work needs to be completed before it makes sense to consider how and when to collect such data.

In this section, we provide our assessment and recommendations on these issues. Section 7.1 sets out our proposals in relation to procurement and construction data. Section 7.2 considers the more difficult area of post completion data.

As noted earlier in this document, the majority of research on PPPs to date has focused on the procurement and construction stages of the contracts. Whilst we believe that the Scottish Executive can and should put some effort into standardising the collection and management of this information, we do not regard it as the top priority. Our judgement is that the most valuable areas for further work are in the operational phase.

7.1. Procurement and construction data

We recommend that data from the procurement and construction phases of projects is collected centrally. Standard questionnaires, applicable to projects from any sector should be completed by procuring authorities at two fixed points in the process: (i) at financial close; and (ii) at the start of operations. At both of these points data should be

readily available – and the authority bid team should be in a position to provide it at relatively low cost¹⁷. The majority of the data collected would be factual, although some more subjective questions, for example about the quality of design or the relationship with the private sector, could also usefully be included.

A potentially important area of added value going forward in seeking to answer the Scottish Executive’s key question would be to collect the same data for non-PPP procurements. Many of the data fields would be applicable to design and build contracts. We therefore recommend the same questionnaire should be used to collect data from non-PPP projects (over a fixed capital value), enabling comparisons to be drawn.

The data fields used should be consistent with the data collected in stage 1 of this study (which was designed to be consistent with previous NAO studies), and with Partnership UK’s database. *Figure 19* and

Figure 20 below show the main categories of data that should be collected and the research areas that the data could be used to inform.

Figure 19: Procurement phase data to be collected at financial close

Data Category	PPP / Non-PPP	Research Area
Project name / description / sector / parties / contacts etc.	Both	For reference and to enable segmented analysis by e.g. sector, major contractor.
Timing from OJEU to financial close	Both	Procurement timescales (i) PPP vs non-PPP; and (ii) over time.
Number of bidders	Both	Level of competition (i) PPP vs non-PPP; and (ii) over time.
OBC and FBC price assumptions	Both	Optimism bias
Price data and underlying costs	Both	Costs of PPP vs non-PPP; information for future business case / affordability projections.
Price movements (value and reasons)	Both	Effectiveness of competition (i) PPP vs non-PPP; and (ii) over time.
Accounting treatment	PPP only	Changes in accounting treatment over time.
Risk transfer	Both (<i>Design / Construction risks</i>) PPP only (<i>Operational risks</i>)	Comparison of risk transfer between PPP and non-PPP projects. Changes in risk transfer arrangements over time.
Procurement costs	Both	Procurement costs (i) PPP vs non-PPP; and (ii) over time.
Views on design / innovation / relationship	Both	Comparison of PPP with non-PPP projects. Comparison with responses to the same questions at later stages of the same project.

¹⁷ One of the issues noted in carrying out this survey has been the time costs imposed on respondents required to answer detailed procurement and financial close questions on projects that closed many years ago.

Data Category	PPP / Non-PPP	Research Area
Financing details	PPP only	Comparison of financing terms with PPP projects in rest of UK (using PUK data).

Figure 20: Construction phase data to be collected at operations start

Data Category	PPP / Non-PPP	Research Area
Timing of delivery and reasons for delay	Both	Construction timescales (i) PPP vs non-PPP; and (ii) over time.
Price changes and reasons	Both	Delivery within budget (i) PPP vs non-PPP; and (ii) over time. Flexibility (i) PPP vs non-PPP; and (ii) over time.
Views on design / innovation / relationship	Both	Comparison of PPP with non-PPP projects. Comparison with responses to the same questions at earlier and later stages of the same project.

Most of this data is now available for the projects that responded to the survey. However, it is likely to be a reasonable amount of work to collect data for all projects, both those that did not reply to our survey and those that were not operational at the time of the survey. After that, we anticipate that it should be relatively easy to track and collect the data for new projects, although a single person within Scottish Executive would need to take responsibility for ensuring that returns are completed to the required standard.

Our suggestion would be that the data is collected using Excel-based questionnaires and is held on a database.

It is of course important to recognise that whilst the development of this database would highlight differences between PPP and non-PPP projects, or changes in the performance of PPP / non-PPP projects over time, it would not give the underlying reasons for those differences. It is likely that this data would highlight areas where further, more in depth analysis would be required.

7.2. Operational phase data

For the operational phase of projects, there may be merit in the Scottish Executive seeking to collect information on unit costs of benchmarked services¹⁸ e.g. soft FM. This might be of some use to public sector managers within and potentially across sectors in managing their contracts. (An alternative or complementary initiative would be to promote and support networks of contract managers. This is particularly important in sectors such as health, where most contract managers are responsible for a single PPP contract.)

¹⁸ Benchmarked services here relates to the elements of the contract (e.g. soft FM services) where there is an explicit requirement or allowance for benchmarking of costs.

More generally, we do not believe that Scottish Executive should not prioritise the central collection of this data at this stage. This reflects two observations:

First, we do not believe that there is currently a standard set of data that could be collected centrally and used to evaluate systematically the performance of Scottish PPP projects. In addition few sectors have yet developed standard performance indicators for all PPP and non-PPP projects.

Second, we believe that further work would be needed to understand the project specific factors (within each sector) that would lead to explainable variations in cost and efficiency¹⁹.

Instead, our judgement is that some or all of the following approaches might be pursued:

- Institute a periodic audit of all PFI schemes along the lines of the current work – but also looking in detail at a smaller number of projects within a particular sector.
- Commission detailed studies into some of the specific components of PPP contracts identified in this Study (e.g. on the levels of FM service specified in the contracts and the relative costs of delivery in different procurement models).
- Commission sector specific studies that (i) seek to define a small number of standardised performance indicators and cost data that could be collected for PPP and non-PPP projects; and (ii) where appropriate carry out more detailed benchmarking studies of performance

Each of these ideas is discussed in more detail below.

7.2.1. Periodically repeat the analysis carried out in this study

The analysis of the operational phase of projects carried out in this study was a ‘thin’ survey across all sectors, which aimed to assess views on performance, flexibility, relationships etc. This type of study needs to be more than a straightforward data collection exercise; the most useful insights in our research came from the free text questionnaire responses and interviews. We also believe that it makes sense to include a component of work that focuses in detail on a small number of PPP and non-PPP projects within the same sector.

We recommend that the Scottish Executive consider repeating this type of relatively broad study on a periodic basis – say every 5 years. The results of Stage 1 of this research would provide a baseline for such analysis.

¹⁹ This is likely to involve a significant ‘benchmarking exercise’ of the kind that utility regulators undertake to understand the efficiency of regulated companies.

7.2.2. Detailed studies into specific components of PPPs

Overall, the priority for these studies should be to report on performance post-construction and the extent to which operational and life-cycle risks are transferred in practice. Within this, specific areas of interest might include:

- Differences in the level and costs of service delivery of soft and hard FM, including a more detailed assessment of the relative merits of transferring both soft and hard FM within the contract. Related to this, it would be useful to explore further the way that the SPV structure impacts on performance in specific cases.
- A more detailed assessment of the costs associated with the comparative lack of flexibility in PPP contracts compared to alternative procurement structures. This analysis might look in more detail at specific examples of contract changes within the operational phase.

Sector comparisons (across procurement approaches) on the life-cycle and condition of assets of similar age.

7.2.3. Commission sector specific studies

We believe that the most promising approach for the Scottish Executive to improve the available evidence on the operational performance of PPPs and non-PPPs is to carry out sector specific studies. There are various approaches to carrying out such comparative studies.

The simplest approach would involve carrying out an interview or survey-based study along the lines of this research. Such studies would need to be carried out periodically to track performance over time. One option that the Scottish Executive might consider is to build on the Audit Scotland report on schools²⁰ and identify a number of PPP and non-PPP schools projects to evaluate over time. Other sectors would of course be equally interesting, however the school sectors has the particular advantage of being a relatively mixed economy in terms of privately and publicly financed infrastructure.

The weakness with the survey-based approach relates to the potential for interview bias. A more robust approach is likely therefore to involve carrying out full comparative efficiency or 'benchmarking' studies. This analysis would aim to look at the efficiency of the overall service offered by a contractor by considering, for example the relative costs of delivering the 'final' outcomes of the contract (e.g. the availability of the asset to an agreed standard). This is the approach that utility regulators take when seeking to compare the economic efficiency of regulated companies (e.g in the water and power sectors).

A starting point for such studies would be the definition of a standard set of KPIs for PPP and non-PPP projects within the same sector. Although this is a non-trivial task –

²⁰ Taking the initiative: using PFI contracts to renew council schools, Audit Scotland 2002

since (as noted above) there is currently a relative lack of comparable performance indicators – we believe that it could be a valuable exercise for a number of sectors.

APPENDIX 1 METHODOLOGY

Scope

We examined the performance of 69 operational PPP projects in Scotland, based on surveys of public and private sector contract managers.

The study was designed to cover the following topics:

- **Cost:** To what extent does PPP procurement deliver overall cost savings in comparison to conventional procurement? How far can this be assessed with reference to factual data, rather than through comparisons with the assumptions used in Public Sector Comparators?
- **Competition:** Is there generally a healthy level of competition for PPP contracts, and hence is the lowest market price for the PPP service being obtained?
- **Procurement and construction performance:** How far does the use of PPP impact on procurement costs and timescales? To what extent does the use of PPP deliver projects more quickly and on budget in comparison to conventional procurement?
- **Design:** To what extent are PPP designs perceived to be better (or more inferior), e.g. in terms of aesthetics, functionality, environmental performance, etc? Is the relevant good practice guidance being followed?
- **Innovation:** To what extent do PPP contractors deliver genuinely innovative solutions?
- **Operational performance:** To what extent do PPP operators deliver a better (or worse) standard of service than the public sector, e.g. in terms of availability, cleaning, catering, etc? To what extent do service levels fall short of or exceed the original expectations of the contract?
- **Flexibility:** Are PPPs seen as being more or less flexible than standard contracts, e.g. in terms of making alterations to the asset, levels of service, etc? What has been the experience of attempting to make changes to contracts?
- **Contractual Relationships:** Are relationships between customers and contractors perceived to be based on a “partnership” approach or an “adversarial” approach? What has been the use and impact of penalty payments/bonuses and/or the threat of termination of the contract?
- **Budgetary Issues:** How valid is the argument that the use of PPP delivers benefits due to budget restrictions in the public sector (particularly capital budgets)? For example, is it valid to argue that PPP procurement brings forward investment and/or ensures that optimal maintenance strategies are followed?

- **Risk transfer:** To what extent is risk transferred in practice? Is it always clear where risk lies? Is there any evidence of contractors or customers seeking to shift risk onto the other party after signing the contract?

In December 2004 we sent questionnaires to the authorities and contractors responsible for each operational project in Scotland. We received responses from 56 percent of authorities and 59 percent of contractors, although note that not all respondents were able to answer all questions, particularly if they had not been involved during the project's procurement. During January and February 2005 we carried out interviews with 20 authorities and 10 contractors to explore issues raised in their responses.

We held discussions with the National Audit Office, Audit Scotland, 4Ps, HM Treasury, and Partnerships UK to understand previous and planned research in this area and, as far as possible, to ensure that our survey was comparable to and complementary to other research.

Figure 21 below shows survey responses and interviews by sector.

Figure 21: Surveys and Interviews

Sector	Number of projects responding to survey (sector response rate)	Number of projects interviewed (sector response rate)
Health	11 (38%)	7 (24%)
Schools	9 (82%)	4 (36%)
Water and Sewerage	9 (100%)	9 (100%)
Transport	3 (100%)	2 (67%)
Further Education	2 (67%)	1 (33%)
Waste	1 (50%)	0 (0%)
Other	6 (86%)	2 (29%)

Figure 22 below shows survey responses by capital value and sector.

Figure 22: Survey response by capital value and sector

Sector	Capital value of projects responding to survey	Percentage of capital value of sector
Health	£406m	85%
Schools	£443m	85%
Water and Sewerage	£654m	100%
Transport	£129m	100%
Further Education	£12m	45%
Waste	£22m	34%
Other	£73m	85%

Other sources of data

This report has been written based on evidence from the survey and interviews together with a review of other literature. We have drawn on the following reports:

- PFI: Construction Performance, NAO, 2003;
- Managing the relationship to secure a successful partnership in PFI projects, NAO, 2001;
- Modernising Construction, NAO, 2001;
- The Private Finance Initiative: The Contract to Complete and Operate the A74(M)/M74 Motorway in Scotland, NAO, 1999;
- The Skye Bridge, NAO, 1997;
- Review of Large Public Procurement in the UK, Mott MacDonald, 2002;
- Taking the initiative: using PFI contracts to renew council schools, Audit Scotland, 2002; and
- PFI: meeting the investment challenge, HM Treasury, 2003.

APPENDIX 2

LIST OF PROJECTS SURVEYED

Sector	Project surveyed	Procuring authority	Year of financial close	Capital value (£m)	Public sector response			Private sector response		
					Survey sent	Response	Interview	Survey sent	Response	Interview
Further Education	Stirling Further Education Centre	Falkirk College	1996	3.6	Yes	Yes	Yes	Yes	Yes	Yes
	North Ayrshire College, Kilwinning	James Watt College	1999	8.6	Yes			Yes	Yes	
	Livingston Further Education Centre	West Lothian College	1999	15	Yes					
Health	Provision of 180 Elderly Care Beds - Rutherglen	Greater Glasgow NHS Board	1990	5	Yes			Yes		
	Provision of 60 frail elderly and 30 elderly mental beds - Saltcoats	Ayrshire and Arran NHS Board	1991	2.5	Yes					
	Provision of 120 Elderly Care beds - Darnley	Greater Glasgow NHS Trust	1991	3.5	Yes					
	Provision of 120 Elderly Care Beds - Ruchill	Greater Glasgow NHS Board	1992	3.3	Yes			Yes		
	Provision of 120 Elderly Care beds - Shettleston	Greater Glasgow NHS Board	1992	3.8	Yes			Yes		
	CT and MRI scanning system	Lothian University Hospitals NHS Trust	1995	2.2	Yes					
	Provision of 90 elderly mental illness care beds	Ayrshire and Arran NHS Board (Irvine)	1995	3.8	Yes					
Ferryfield House	Lothian Primary Care NHS Trust	1996	2.5	Yes						

Sector	Project surveyed	Procuring authority	Year of financial close	Capital value (£m)	Public sector response			Private sector response		
					Survey sent	Response	Interview	Survey sent	Response	Interview
Health (cont.)	Health Information System	Lanarkshire Acute Hospitals NHS Trust	1996	2.5	Yes					
	Kincardine Community Hospital	Grampian Health Board	1997	3.8	Yes			Yes		
	Health Information System	Tayside University Hospitals NHS Trust	1997	2.3	Yes					
	Health Information System	Yorkhill NHS Trust	1997	2.5	Yes	Yes		Yes	Yes	
	Mearnskirk Hospital Geriatric Beds	South Glasgow University NHS Trust	1997	2.4	Yes					
	Energy Management System	Tayside University Hospitals NHS Trust	1997	2.8	Yes			Yes		
	Hairmyres Hospital	Lanarkshire Acute Hospitals NHS Trust	1998	68	Yes	Yes	Yes	Yes	Yes	
	Wishaw General Hospital	Lanarkshire Acute Hospitals NHS Trust	1998	100	Yes	Yes	Yes	Yes	Yes	
	Energy Management System	Lothian University Hospitals NHS Trust	1998	3	Yes	Yes				
	New Royal Infirmary of Edinburgh - Phase I & II	Lothian University Hospitals NHS Trust	1998	180	Yes		Yes	Yes	Yes	Yes
	Ellen's Glen House (60 Care of Elderly Beds)	Lothian Primary Care NHS Trust	1999	2.6	Yes	Yes	Yes	Yes		
Cumnock Community Hospital	Ayrshire and Arran Community Healthcare NHS Trust	1999	8.6	Yes	Yes		Yes	Yes		

Sector	Project surveyed	Procuring authority	Year of financial close	Capital value (£m)	Public sector response			Private sector response		
					Survey sent	Response	Interview	Survey sent	Response	Interview
Health (cont.)	Inverness Psychiatric Unit	Highland Primary Care NHS Trust	1999	16.5	Yes			Yes	Yes	Yes
	Tippethill Hospital	West Lothian NHS Trust	1999	2.3	Yes					
	Larkfield Geriatric assessment facility	Argyll & Clyde Acute Hospitals NHS Trust	1999	10	Yes					
	Southern General HISS	South Glasgow Hospital NHS Trust	1999	2.4	Yes					
	SGH geriatric medicine and assessment facility	South Glasgow University Hospitals NHS Trust	1999	11	Yes	Yes				
	Hospital Information Support System	Lothian University Hospitals NHS Trust	1999	12	Yes					
	Day Surgery and Maternity Unit	Dumfries and Galloway Acute & Maternity Hospitals NHS Trust	2000	10	Yes	Yes		Yes	Yes	Yes
	Patient Management System	Lanarkshire Acute Hospitals NHS Trust	2001	4.4	Yes					
	Findlay House	Lothian Primary Care NHS Trust	2002	4	Yes	Yes	Yes	Yes		
Schools	Falkirk Schools	Falkirk Council	1998	65	Yes	Yes				Yes
	Balfon School	Stirling Council	2000	16.5	Yes	Yes				
	Mearns Primary and St Ninian's High School	East Renfrewshire Council	2000	12.5	Yes	Yes	Yes			

Sector	Project surveyed	Procuring authority	Year of financial close	Capital value (£m)	Public sector response			Private sector response		
					Survey sent	Response	Interview	Survey sent	Response	Interview
Schools	Project 2002 (Glasgow Schools Project)	Glasgow City Council	2000	225	Yes	Yes	Yes	Yes		
	Aberdeenshire Schools Project	Aberdeenshire Council	2001	14.25	Yes	Yes		Yes	Yes	Yes
	Highland Schools Project	Highland Council	2001	17	Yes	Yes				
	West Lothian Schools Project	West Lothian Council	2001	27.8	Yes	Yes		Yes		
	Fife Schools Project	Fife Council	2001	32	Yes	Yes		Yes	Yes	
	East Lothian Schools	East Lothian Council	Not known	Not known	Yes			Yes		
	Edinburgh Schools Project	The City of Edinburgh Council	2001	80	Yes					
	Midlothian Schools Project	Midlothian Council	2002	33	Yes	Yes				
Transport	Skye Bridge	Development Department	1992	23.6	Yes	Yes				
	M6 (M74) DBFO	Development Department	1997	96	Yes	Yes	Yes	Yes		
	Inverness Airport Terminal	Highlands and Islands Airports Limited	1998	9.5	Yes	Yes		Yes	Yes	Yes
Waste	Baldovie Waste to Energy Plant	Dundee City Council	1997	43	Yes			Yes		

Sector	Project surveyed	Procuring authority	Year of financial close	Capital value (£m)	Public sector response			Private sector response		
					Survey sent	Response	Interview	Survey sent	Response	Interview
Waste (cont.)	Argyll and Bute Waste Management Project	Argyll & Bute Council	2001	21.7	Yes	Yes		Yes	Yes	
Water and Sewerage	WTD and Outfalls at FW and Inv. Transmission pipeline at Inv	Scottish Water	1996	45	Yes	Yes	Yes	Yes	Yes	Yes
	Daldowie/Shieldhall Sludge Treatment Centres	Scottish Water	1999	65	Yes	Yes	Yes	Yes		
	Dalmuir Sewage Treatment. Provision of Secondary Treatment	Scottish Water	1999	50	Yes	Yes	Yes	Yes		
	Almond Valley , Esk and Seafield Sewage Scheme	Scottish Water	1999	170	Yes	Yes	Yes	Yes	Yes	
	Tay Wastewater Project - Dundee, Carnoustie and Arbroath Waste Water Treatment	Scottish Water	1999	90	Yes	Yes	Yes	Yes	Yes	Yes
	Aberdeen, Stonehaven, Fraserburgh and Peterhead sewage and sludge treatment	Scottish Water	2000	80	Yes	Yes	Yes	Yes	Yes	
	Meadowhead, Ayr, Stevenston and Inverclyde Sewage Treatment	Scottish Water	2000	65	Yes	Yes	Yes	Yes		
	Levenmouth Purification Scheme	Scottish Water	2000	47	Yes	Yes	Yes	Yes	Yes	
	Moray Coast Wastewater project	Scottish Water	2001	42	Yes	Yes	Yes	Yes	Yes	Yes
Other	Kilmarnock Prison	Scottish Prison Service	1997	32	Yes	Yes	Yes	Yes	Yes	
	Integrated information system	Scottish Children's Reporter Administration	1998	3	Yes			Yes	Yes	

Sector	Project surveyed	Procuring authority	Year of financial close	Capital value (£m)	Public sector response			Private sector response		
					Survey sent	Response	Interview	Survey sent	Response	Interview
Other (cont.)	IS/IT Services	Highland Council	1998	13	Yes			Yes		
	Integrated Education Management Service	Moray Council	1998	5.6	Yes			Yes	Yes	
	Office Accommodation	Perth and Kinross Council	1999	15	Yes	Yes		Yes	Yes	
	Police Force Training Centre - East Kilbride	Strathelyde Police	1999	17	Yes	Yes	Yes	Yes	Yes	
	visitscotland.com	STB/ATB Network	2002	0	Yes	Yes		Yes		

APPENDIX 3

GLOSSARY

Authority	Central or local government department, agency or other public sector body paying a private sector contractor to provide a long-term public service asset.
Availability	Contractually defined measure of the proportion of time for which the public service asset is available for use.
Benchmarking	Process to compare both standard and price of services with an equivalent market standard. The process does not involve any formal competitive tendering.
Construction phase	Project phase when the asset being procured is physically built.
Contractor	Private sector company or consortium receiving long-term payments from the public sector to provide a public service asset.
Design, Build, Finance and Operate (DBFO)	Contractual relationship between the public and private sector parties for the design, construction, operation and financing of a public service asset. A form of PPP.
Design, Build and Operate (DBO)	Contractual relationship between the public and private sector parties for the design, construction and operation of a public service asset, financed by the public sector.
Financial close	Stage of the procurement process when negotiations with the preferred bidder and financial modelling of the project are completed.
Hard facilities management (Hard FM)	Services, other than Soft FM services, required to support the operation of the public service asset. Hard FM services include maintenance of buildings, engineering, landscaping etc.
Key Performance Indicators (KPIs)	Quantitative and qualitative measures of service performance. KPIs are specified in the contract and are used to assess contractor performance against output specifications.
Life cycle costs	Costs associated with refurbishing the asset throughout the contract period.

Net present value (NPV)	Present value of expected project cashflow after applying a discount rate to reflect the value of alternative use of funds.
Operations phase	Project phase when the public service asset is available for use by the public sector authority and the intended beneficiaries.
Payment mechanism deductions	Form of financial penalty incurred by the private sector contractor for not fulfilling certain contractual requirements.
Private Finance Initiative (PFI)	Programme launched in 1992 by the Conservative Government to encourage private sector investment in the public sector.
Public Private Partnership (PPP)	Generic term for public sector projects involving both the public and private sectors. Involvement can be to varying degrees and the partnership can take different forms.
Preferred bidder	Single private sector bidder selected by the procuring authority to go forward to the detailed contractual and financial negotiation stage prior to award of the PPP contract.
Pre-qualification	First stage of the process for procuring a private sector entity to provide a public sector asset. Any private sector entity can submit a pre-qualification bid for consideration. Successful pre-qualification bidders are invited to submit a detailed financial and technical proposal.
Procurement phase	Project phase when the procuring authority invites bids from private sector entities, assesses bids received, selects a preferred bidder, and negotiates the financial and service specification elements of the PPP contract with the preferred bidder.
Public Sector Comparator (PSC)	Means of assessing the value for money of a particular PPP procured project in comparison to a hypothetical traditionally procured project.
Risk transfer	Passing of risk from the public to the private sector party. The specific transfer of a variety of project risks can be specified in the PPP contract.
Services specification	Contractually stated service outputs required to be delivered by the private sector service provider.

Soft facilities management (Soft FM)	Services, other than Hard FM services, required to support the operation of the public service asset. Soft FM typically includes catering, cleaning, laundry etc.
Special Purpose Vehicle (SPV)	Private sector company specifically established to carry out a particular PPP contract. The SPV is usually made up of different shareholders including a construction company and a facilities management company.
Traditional procurement	Method for procuring and operating a public service asset, where the public sector authority procures and finances and design and/or construction of an asset and separately procures its operation, or manages the completed asset itself.
Value for money	Requirement that a procurement option represents the optimum combination of whole life cost and quality (or fitness for purpose) to meet the user's requirement, that is the most economically advantageous option rather than necessarily the lowest cost option.