

# Public Private Partnerships - A Review of the Key Issues



# Public Private Partnerships

## A review of the key issues

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## FOREWORD

At the first meeting of the European Construction Institute's Task Force on Public Private Partnerships/Private Finance Initiative some doubts were expressed as to whether there was any meaningful contribution that the ECI could make in this area. Numerous guides, reports, commentaries and textbooks on PPP/PFI were already available, produced by a variety of Government bodies, trade and professional associations, private sector entities (including consultants of every kind) and academic researchers, and it seemed possible to attend a different PPP/PFI conference or seminar almost every day of the week.

On reviewing this mass of very valuable published material, however, it became clear that almost everything published to date has been written from the point of view of the public sector awarding authority. There is very little in the published literature which sets out the concerns and key issues for bidding consortia, lenders and equity investors.

This book, produced by the ECI with contributions from a number of its members, all of whom are active practitioners in the field of PPP/PFI, is intended as a step towards redressing the balance. It consists of ten papers (plus an Introduction), each focusing on a specific aspect of the PPP/PFI process and each highlighting key issues and potential problem areas from the standpoint of the other parties with whom the public sector entity will need to reach agreement if the project is to proceed.

The underlying theme of the book is that it is important for the public sector to be aware of and to understand the commercial and legal concerns of the other parties in the process, so that these can be taken into account as early as possible in the structuring and financial modelling of the project. This reduces the risk of misunderstanding or conflict arising from unrealistic expectations, unachievable objectives or inappropriate allocation of risks. One of the difficulties with PPP/PFI projects is the length and complexity of the negotiations that are required up to financial close. It can only be in the interests of all parties and of the project if potential problem areas are identified and resolved at the earliest possible stage. This book is intended as an aid to greater mutual understanding in this area.

However, it is not a handbook on UK PFI, although obviously the UK experience of PFI is of immense value. With PFI now the predominant form of public sector procurement in the UK with well over 500 projects having reached financial close in the past 10 years, the process has become very sophisticated. However, this method of procurement is now rapidly spreading throughout Europe, with each country adapting the process as appropriate for its own culture, economy, political climate and legal system. The objective of this book is to consider some of the key issues inherent in this form of procurement, most of which are likely to arise in every jurisdiction.

For this reason PPP/PFI is a particularly appropriate topic to be addressed by the ECI. Since its establishment in 1990 the ECI has worked to champion a strong, globally competitive European construction industry, building a culture which is raising the performance of the industry across Europe. This book is part of a comprehensive programme of knowledge generation and application to improve company and industry performance which is delivered by the ECI, supported and amplified by regional/national units and partner organisations.

Finally, may I extend my personal thanks to the other members of the ECI PPP/PFI Task Force for their dedication and unfailing good humour in the course of this endeavour,

and in particular to the various contributors to this book, to Gareth Thomas, Ivor Williams and Terry Everett of the ECI, and to my colleagues at Norton Rose who have assisted in various ways in the production of this book, in particular Joanne Teather and Amy Lindemann who willingly accepted the burden of much of the detailed editing.

**Martin Bridgewater**  
**Norton Rose**  
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## GLOSSARY

ADSCR	Annual debt service cover ratio. This is the ratio of the net of tax funds available for debt service (i.e. revenues less operating costs less tax) in any one year against the payments due (interest plus principal) on outstanding debt in the same period.
AFM	Asset facilities management.
Asset Management Contract	The name sometimes given to a Construction Contract which also includes the provision of Hard FM Services.
Authority	The term used in this book to describe the public sector client. It is usually the grantor of the PPP concession. It could be a central or local government authority or department, a statutory body, a hospital trust or any other public sector entity.
BAFO	Best and final offer.
BCIS	Building Cost Information Services. This data is provided and published by the Royal Institution of Chartered Surveyors.
Bidder	A tenderer (or bidding consortium) bidding to be the Project Company for a PPP project.
BRE	Building Research Establishment.
Building Contractor	The party which enters into the Construction Contract with the Project Company.
CAR insurance	Construction All Risks insurance.
competitive tendering	The procurement procedure normally used in PPP projects. Competitive pricing normally reduces the cost of providing ancillary services (e.g. cleaning) to the 'core' public service delivery (e.g. teaching or the provision of medical services) and thereby ensures VFM. The private sector operator that can provide the required service most efficiently is awarded the contract.
Construction Contract	The sub-contract entered into between the Project Company and the Building Contractor for the construction of the Facility (or other capital expenditure works that may be required under the Project Agreement, such as refurbishment works).
DBFO	Design, build, financial and operate.



discount rate	The annual interest rate used to discount future payments or receipts back to today's values.
DSU insurance	Delay in start-up insurance.
EPC Contract	Engineering, procurement and construction contract. This form of construction contract typically includes substantial engineering works, usually on a turnkey basis (as opposed to a building contract, which is a construction contract for primarily building works).
facilities management or FM	Hard FM Services and Soft FM Services.
Facility	The building or other physical asset to be constructed for the Authority under the Project Agreement. Not all PPP projects will require the construction of a Facility.
Financiers	Collectively, providers of debt finance (i.e. loans) and equity (i.e. share capital) in the Project Company.
FM Contract	The sub-contract entered into between the Project Company and the FM Contractor for the provision of facilities management services to the completed Facility. This is often split into two separate contracts - a Hard FM Services Contract and a Soft FM Services Contract.
FM Contractor	A party which enters into an FM Contract with the Project Company.
Force Majeure events	Events which are beyond either party's control (for example, war, nuclear or chemical contamination) and which prevent a party from meeting its obligations under a contract.
gearing or leverage	The ratio of debt to equity.
Hard Services or Hard FM Services	Services relating to the availability of the Facility (e.g. repair and maintenance).
ISOP	Invitation to submit outline proposals.
IT	Information technology.
ITN	Invitation to negotiate. The public notice requesting bids.
ITT	Invitation to tender.
JV	Joint venture.

Lenders	The providers of debt finance to the Project Company.
life cycle	The anticipated useful life of an asset.
Life-cycle fund	A cash reserve set up to finance replacement of building asset elements, components and systems which reach the end of their life cycle during the duration of the Project. Also known as maintenance reserve account.
LLCR	Loan life cover ratio. This is the ratio of the NPV of net of tax funds available for debt service (i.e. project revenues less operating costs less tax) for the current and future years of the project's life against the NPV of payments due (interest plus principal) on outstanding debt discounted over the same period.
mezzanine debt	The generic term for subordinated debt and other instruments which, in bankruptcy, lie between senior debt and equity.
MRA	Maintenance reserve account (also known as life-cycle fund).
NPV or Net Present Value	The current value of a stream of future costs and revenues, discounted back at a specified discount rate and over a designated number of years. The NPV should always be quoted with the discount rate and the period over which discounting has taken place.
off balance sheet financing	Financial obligations of a company which do not appear directly on its balance sheet. Such obligations may appear as notes to the balance sheet. In PPP projects the Project is funded against the strength of financing of future cash flows.
OGC	Office of Government Commerce.
OJEC	Official Journal of the European Community.
O&M Contract	Operation and maintenance contract.
ordinary debt	Conventional loans.
output specification	The specification and measures of the service to be provided by the Project Company in a PPP project.
pass-through or pass-down	The inclusion in a lower tier contract (e.g. the Construction Contract) of the same provisions as are contained in a higher tier contract (e.g. the Project Agreement) on a back-to-back basis, the objective being

	to ensure that all relevant obligations and risks are passed down to the lower tier contractor (subject to any specific liability caps or exclusions that may be agreed).
PFI	Private Finance Initiative. A form of PPP. Long-term contracts are awarded to private sector operators to provide services to the public sector, for which purpose the private sector entity must usually construct or refurbish physical assets (such as a Facility) and provide funding for the construction phase. The public sector usually remains responsible for the delivery of “core” public services.
PI insurance	Professional indemnity insurance.
PIN	Prior information notice.
PPM	Planned preventative maintenance.
PPP	Public private partnership. A contractual structure through which the public sector and the private sector work together to provide services and infrastructure.
Preferred Bidder	The tenderer (or bidding consortium) for a PPP project which has been selected by the Authority to be the Project Company, subject to final negotiation and signature of all contractual and funding documents.
Privatisation	Transferring, either in whole or in part, the ownership and operation of an entire state-owned business into the hands of the private sector.
Project	The term used in this book to describe any particular PPP project.
Project Agreement	This agreement normally represents the main contractual relationship between the Project Company and the Authority.
Project Company	Also referred to as “Project Co”, the “Special Purpose Vehicle” or “SPV”, or the Concessionaire. This company is formed, financed and operated by the private sector to provide services to the public sector.
project insurances	Project-specific insurances which the Project Company is required by the Project Agreement to take out and maintain.
Public Sector Comparator or PSC	The formula by which the government compares the anticipated cost of a PPP project against the likely cost

	of conventional public sector methods of providing the same service, so as to determine whether the PPP project will provide VFM.
senior debt	Loans which, in bankruptcy, rank first after preferential creditors (for example, the Inland Revenue or employees).
Soft Services or Soft FM Services	Services relating either to the operation of the Facility (e.g. cleaning, security and catering) or to the activity carried out within the Facility (e.g. the provision of administrative or support staff).
Sponsors	Private Sponsors: the shareholders in the Project Company. Public Sponsors: the shareholders in the Authority.
subordinated debt	Loans which, in bankruptcy, rank second after preferential creditors and senior debt. Subordinated debtors usually only receive repayment of capital after senior debt has been repaid.
Turnkey Contract	A contract for the design and construction of an asset such that on completion it is handed over ready in all respects for immediate use.
value for money or VFM	The test that must be satisfied by each PPP proposal under the Public Sector Comparator in order for the government to adopt the PPP project, i.e. that, after considering all potential risks, risk transfer and risk allocation, the PPP project will provide value for money compared with the public sector alternatives.
whole-life cost	The systematic consideration of all relevant costs and revenues associated with the acquisition, ownership and maintenance of a Facility. All the costs are added together to represent the total cost.



## AN INTRODUCTION TO PPP

by

**Martin Blaiklock, Consultant, Energy & Infrastructure Project Finance**

In recent years governments all over Europe have been turning to Public Private Partnerships (PPPs) as an efficient and effective way of delivering services to the public. It is therefore essential that all parties likely to be involved in the process have a common understanding of the principles underlying PPP structures and an appreciation of the key issues involved from the standpoints of bidding consortia and their lenders, as well as from the perspective of the public sector procuring authority.

### **What is PPP?**

PPP is a concept which involves the public and private sectors working together to provide infrastructure and public services. Instead of the public sector procuring a capital asset by paying for it up front and in full out of the state budget (as traditionally has been the case), in a typical PPP project a single, stand-alone, special purpose business, the Project Company, is created. This company is operated and financed by the private sector and delivers the necessary service, or makes available the relevant assets, to the Authority under the framework of a long term concession in return for payment commensurate with the service levels provided.

### **Why use PPP?**

Among the many reasons why a PPP scheme may be used are:

- to remove the responsibility for funding the investment from the government's balance sheet
- to relieve short term pressure on public finances
- to introduce competition, and thereby ensure that the public sector receives the best value for money
- to take advantage of the managerial practices and experience of the private sector
- to provide the opportunity for innovation in the provision of public services
- to introduce new technologies and encourage technology transfer
- to restructure public sector service enterprises by embracing private sector capital and practices, i.e. privatisation in whole or in part.

### **How has the concept of PPP arisen?**

Historically, governments and government agencies have funded projects either directly from central budget allocations or by raising loans secured against government guarantees. This has provided a quick, simple and well-tried method of funding the necessary investments, provided there are sufficient funds in the central budget in the first place.

PPPs, on the other hand, comprise the outsourcing to the Project Company of the responsibility for investing in new capital assets, and sometimes the actual provision of public services, under a long-term concession or franchise. The Project Company raises

the required finance, both debt and equity, secured against the performance of the contracts for the underlying service. In simple terms, the funds are raised against the expectation of the projected future cash-flows generated by the Project.

The concept of private sector concessions for infrastructure and raising finance against future project cash-flows is not a modern phenomenon. Concessions were widely used in the second half of the 19th century to finance railways, tramways, canals and highways in Europe and the Americas. Unfortunately many of these went bankrupt. As a result in the 20th Century, until the 1980s, private funding for infrastructure projects in Europe was only provided against government guarantees.

The breakthrough came through the development of North Sea oil in the 1960s, when many oil and gas projects were funded “off balance sheet”, i.e. against the strength of the future cash flows generated by sales contracts, complemented by the security of the oil deposits on the ground.

This technique was later applied to a number of natural resource projects, e.g. copper mining, and shortly afterwards, by the mid-1980s, progressed naturally to infrastructure developments, with varying degrees of success.

One should add that in the UK such projects were undertaken against the backdrop of extensive privatisation of existing public service assets (power, water, telecommunications, gas, airports, railways, etc.) during the “Thatcher era” of the 1980s. These privatisations opened up new opportunities for many private investors and acted as a spur to the UK Government to institutionalise the required regulatory framework to protect the public interest.

### What are the advantages and disadvantages of PPP?

The key advantages of PPPs are:

- Off balance sheet financing      A PPP removes the direct financial obligation for investment in the relevant assets required for the provision of selected public services from the government’s budget.
- Improvement of infrastructure      PPPs encourage innovation and efficiency and can enhance the quantity and quality of basic infrastructure and a wide range of public services.
- Value for money      PPPs can often deliver greater value for money than traditional methods of providing public services. In the UK the Treasury estimates that the use of PPPs has produced average savings of 17% over all sectors.  
  
This is partly achieved by the fact that the additional financing costs which may be incurred by using the private sector can be offset by a reduction in operating costs resulting from the sharing of knowledge and skills in design, construction and operation.
- Innovation      The expertise and experience of the private sector encourages innovation, improvement in design and construction, reduced costs and shorter delivery

time. These developments can then be applied to future projects, therefore furthering the development of best practice in the public sector.

- Standards maintained

The Authority will only pay for the service when it is delivered to the required standard. This standard will be predetermined and must be maintained for the full duration of the Project. This differs from traditional procurement, where standards depend on the public sector making funds available.

The main disadvantages of PPPs are:

- Complexity

The funding of a PPP depends on the strength of the underlying contractual structure. The underlying contracts therefore need to be significantly more comprehensive than conventional commercial contracts. PPPs can therefore be very complex.

Figure 1 (page 11) shows a typical funding structure for a private sector road project (in this case a DBFO concession) with the associated contractual relationships. Figure 2 (page 11) shows a typical funding structure for a PPP school building, where often both the construction and the facilities management activities are carried out by a single sub-contractor, thereby simplifying the contractual framework.

One consequence of this complexity is that the Project Company needs to employ staff who are not only both excellent engineers and commercially experienced but also knowledgeable in finance and legal issues. This adds to the costs of PPPs.

- Timetable for negotiation

Because PPPs are more complex they take longer to negotiate, often twice as long (but sometimes longer). Conventional contracting and funding mechanisms can be much simpler, quicker, more predictable and cheaper, but the conventional option may not be available to the procuring authority.

- Up-front costs

Due to their complexity PPP negotiations require the additional support of financial advisers and lawyers, who all need to be paid as advice is provided. Typically, the up-front costs for a PPP can be at least twice the preparation and negotiation costs normally associated with a conventional construction contract, sometimes more. On the other hand, such costs may be capitalised into the overall project costs, and therefore funded (i.e. re-financed, so far as the Project Company is concerned) out of the finance raised when financial close is attained.



- **Off balance sheet financing** Even though PPPs remove the capital expenditure for the asset from the government's capital account, they can still be seen as creating a contingent liability for the government because of the obligations under the long-term service provision contract. This is particularly the case when the transfer of risk to the Project Company is insufficient and not transparent. This is an area which many government sponsors of PPPs have dangerously ignored, as such service provision contracts can effectively mortgage future tax-payers' revenues to payments under such contracts.

In addition, some PPP contractual structures may therefore be deemed not to be "off balance sheet". A prudent view is that, unless the transaction can demonstrate an overt and sufficient transfer of risk to the private sector, such structures should not be considered "off balance sheet" and should instead be charged against the government's borrowing limits.

Currently this whole topic is under close examination by the EU financial authorities to ensure consistency in government reporting of such obligations.

- **Negotiation process** The PPP concept, by definition, implies a sharing of risk and reward. At times, however, the bidding and negotiation process can become very confrontational. This potentially jeopardises the harmonious relationship which needs to be maintained throughout the concession period for a successful PPP.
- **Accountability** Since the recent collapse of huge financial corporations, such as Enron, there has been the suggestion that off balance sheet financing should be specifically reported in corporate accounts, possibly even consolidated as liabilities and not just left as contingent items. It is still unresolved as to how such rules could apply to PPPs, but there is clearly a general move towards greater transparency in respect of such transactions. Arguments of commercial sensitivity weaken when faced with the need to ensure that both the Authority and the Project Company spends tax payers' money effectively and for the designated purpose. It is clear that current accountancy practices do not ensure such transparency.

Figure 1: Typical DBFO Concession Structure

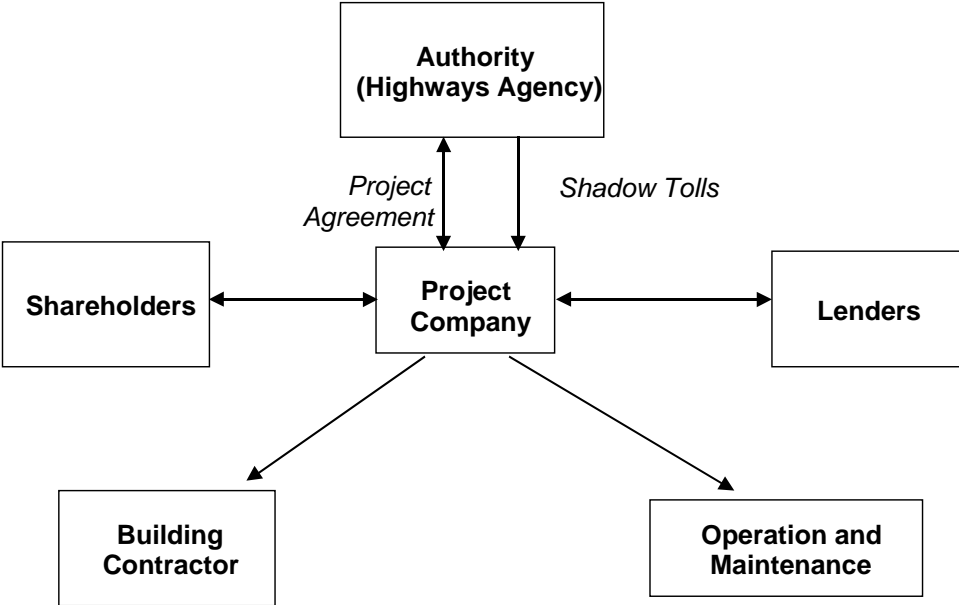
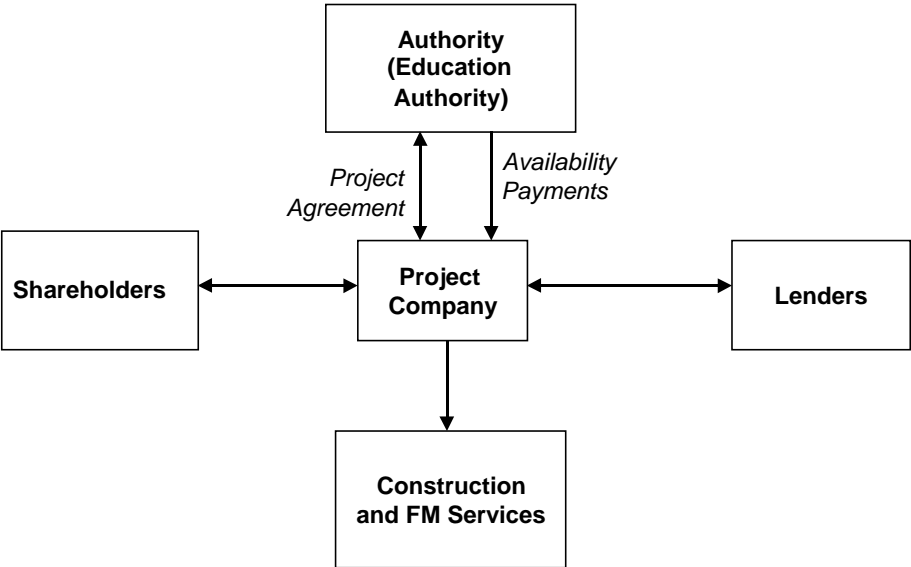


Figure 2: Typical PPP School Building Project (Single Sub-contract)





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# CHAPTER 1

## PROJECT SELECTION BY THE PUBLIC SECTOR

by

**Martin Blaiklock, Consultant, Energy & Infrastructure Project Finance**

### **Introduction**

Against the backdrop of a basic understanding of the rationale behind the concept of PPP and the issues to be considered when implementing such schemes, the public sector must next decide whether it will be appropriate for them to use such techniques, or not. This chapter is aimed at providing some guidance to that decision.

### **Public Sector Comparator**

The basis for the decision on objective grounds as to whether to adopt a PPP approach or to fund a project for essential public services conventionally through government resources lies in the evaluation of the Public Sector Comparator. Such evaluation comprises the quantitative comparison of what such a project would cost funded as normal out of the government budget against the PPP alternative. The methodology for this analysis is described in more detail in chapter 4 of this book, but like any quantitative analysis it is only as good as the data used.

Despite some years of development and discussion, PPP practitioners are not in full agreement as to what should be included and what should not in such calculations. Two fundamental issues when taking a 30 year perspective (the life of a typical PPP project) are:

- the discount rate to be used; and
- whether the analysis should be undertaken in “real” or “nominal” terms (i.e. excluding or including inflation respectively). Very different results can be obtained depending on the adopted approach. Practitioners, therefore, should take care to understand the issues at stake in such analysis and, where doubt exists, undertake sensitivity tests around the variables in doubt. PSC analysis, notwithstanding the objective nature of the process, is not an exact science.

### **Constitutional and legal issues**

There are also a number of subjective issues which must be considered when reaching the decision as to whether to adopt a PPP scheme.

Experience has shown that some governments embark on PPP programmes for infrastructure development before they are fully prepared. Unless potential investors and the Project Company can clearly see the way forward from invitation to bid, through bid evaluation and negotiation, to project implementation, they will be less than enthusiastic in their initial response to the call for bids. The up-front costs and risks can be high for bidders, and auditors now demand that such costs be immediately written off rather than be capitalised as development costs. The pain for bidders arising from a prolonged bidding period can therefore be significant.

Furthermore, governments should be aware that failure on one project negotiation process can have a significant negative impact on other PPP proposals to be negotiated at a future date in the same market. Practitioners and financiers have long memories and take significant comfort and encouragement from successful precedents for PPP implementation in any country, when deciding and selecting opportunities.

Governments, therefore, must plan carefully and comprehensively. Typically, issues which should be considered are:

- **Enabling legislation must be in place**

Any PPP concession will require a legal framework under which to operate. If this does not exist, it can take time, often years, for the national or state parliament to enact the appropriate legislation.

- **The national constitution must be complied with**

This is best described by example. It may be constitutionally illegal in a given jurisdiction for the private sector to process and supply water to the public. Furthermore, in the same context, it may be that water is deemed under the law to be a national asset and, therefore, the private sector is prohibited from “processing” it. Finally, “ownership” of water as an asset may reside in a different government ministry than that awarding the Project. All such issues need to be anticipated, and the way forward for a PPP project cleared, before bidding starts. If the final legislative environment remains uncertain at the outset of the tender process, bidders will be wary and uncommitted.

- **Adequate legislation must be in place**

Sometimes the legislation may be in place, but inadequate. For example, the government decree establishing the authority of a particular ministry to negotiate and award a specific PPP contract may provide for a 10-year project period. However, the reality may be that 30 years would be preferable in order to sustain financial feasibility and provide the Project Company and the Lenders with a full return on their capital investment. The legislation, therefore, will need to be changed to optimise the PPP potential.

- **Sufficient legislation must be in place**

It may be that (as in the EU) legislation already exists for the call for bids, evaluation and award of construction and service contracts in the public sector. However, such laws may not take into full account all the issues involved in awarding concessions, e.g. the difficulty in defining all aspects of the proposed contract/concession at the outset such that some negotiation is invariably required, the extended period for reaching financial close for concessions, and issues of confidentiality. Quite often the legislation needs adjustment. Indeed, in the EU the legislation is currently being updated to address current PPP issues. Whatever the status of the law, however, the final legal framework needs to be such as to assure openness, fairness and transparency, if it is to be practical and effective.

- **Public Sector Comparators must be considered**

At the outset governments should have already undertaken an analysis of the PSC against possible PPP alternatives, when deciding whether or not to adopt a PPP approach. Quite often, however, the costs of a PPP alternative are largely unknown at the bid stage. In such circumstances it is questionable whether governments should

leave open the possibility that they may revert to conventional public sector procurement should they receive no satisfactory PPP bids, as this might indicate to bidders less than 100% commitment to the PPP. There are arguments both ways, but should this course be adopted it is strongly arguable that some compensation should then be paid to the best PPP bidders in respect of their wasted bid costs. This issue is one where the spirit of reasonableness and equity should prevail.

- **Limited governmental involvement**

One common area of conflict with concessions for public services arises from the fact that conventional government public construction and service contracts invariably allow the government significant say in how the contract is managed and, on occasions, the right to impose contract changes at will. Under a PPP arrangement this should not be possible. The key to successful PPP projects is that the government should define at the outset precisely the service they require, and stick to that specification. This means that the government should not interfere with the Project Company's activities other than to ensure that adherence to the concession takes place. After all, it is the Project Company's responsibility to complete construction, raise the funding required, operate the concession and repay the Lenders, not the government's. It is interesting to note that many of the high-profile failures of PPP-type projects to date have arisen due to specification changes in the concession, e.g. in the transport sector (Eurotunnel) and the IT sector (DSS IT system, Newcastle, UK).

- **Tariffs should be adjustable**

For any PPP to be successful, the Project Company will require that the tariffs for the service are adjusted in a reasonable manner to reflect inflation, etc. From the public interest perspective, it will be important that the concession falls under a regulatory regime which is transparent, effective and, for the Project Company, independent of political interference. Again, potential concessionaires use this criterion as one measure of the maturity of a PPP market, when deciding whether to commit the significant resources required to prepare a PPP bid.

- **Licences, access, etc**

Project Companies will expect the Authority to provide the necessary site access, licences, etc.

- **Dispute resolution issues**

Financiers (debt and equity) for concessions rely on the underlying contractual framework for the payment of their rewards for the inherent risks assumed under a PPP project. Inevitably, PPP concessions can go wrong, and it will be in the interests of both parties to the project that a quick, fair and effective way is found and documented to resolve issues. Often the Project Agreement will allow for Project Company – Authority committees to be set up at the outset of the Project to monitor progress and resolve minor disputes. If that cannot solve the dispute, then the issue will pass to a Dispute Resolution Board. If that fails, then the parties can revert to arbitration.

In some environments, including some EU countries, dispute resolution has been largely based on "political" procedures rather than litigious methods. This may well be satisfactory to local financiers who understand "the system". However, to the extent that non-national financiers are involved, more overt and transparent procedures may be required.

It is quite normal, particularly in emerging markets, when foreign investors and Lenders are involved with implementing or funding the PPP, that only international arbitration procedures are acceptable (e.g. UNCITRAL or ICSID). This also means that the host government must accept such decisions, which some governments perceive as an imposition on their sovereignty. Experience has shown (for example in Turkey) that the non-adoption of such measures can hold up indefinitely the progress of PPP transactions, unless host governments are prepared to accept such measures.

On the other hand, in some EU countries arbitration procedures and precedents are much more established in this area of business, and government sponsors and PPP financiers will rely on national legislation to expedite arbitration proceedings.

- **Environmental issues**

Governments should be aware that increasingly Lenders are becoming environmentally sensitive, and that PPP projects will be expected to meet internationally accepted standards. Invariably, this means that the environmental studies must be undertaken by companies who are seen to be independent of both the Project Company and the Authority. Furthermore, governments should be aware that such studies can often take some months to complete and are on the critical path for any PPP development.

- **Transfer of labour from public to private sector**

Governments should set up equitable arrangements, possibly legislation, to support the transfer of labour from the public sector to the private. Invariably, any PPP concession will have to employ a significant proportion of workers who would otherwise have been part of the public sector alternative, if this had been implemented, and their employment rights need to be protected. Likewise, the Project Company should not be saddled with unreasonable and inflexible long-term employment commitments, if the advantages of PPP are to be achieved.

### Questions to be asked in deciding whether PPP is appropriate

- Do government budgetary constraints dictate that PPP is the only short-term answer?
- Does the proposed PPP introduce technical and managerial innovation?
- Will the proposed PPP open up the market for public services to competition, such that the customers will benefit? Sometimes the implementation of PPP projects can create private sector monopolies for certain components of the service provision, which might work against consumers' interests.
- Is the extended timetable required to arrange and negotiate a PPP acceptable, or is there an immediate need for the service in question?
- Has the government the staff resources and skills to undertake and manage a PPP successfully?
- Are the up-front costs for a PPP transaction justifiable for the overall investment value involved? Quite often Lenders will not entertain PPP proposals with a value of less than €30-40 million potential lending, as the costs associated with the necessary due diligence, and the potential returns through margins and fees on the loan, would not justify the time and effort expended in reaching financial close.

- If the above threshold is not achieved, what are the possibilities of “bundling” together some smaller PPPs in the same sector? In concept, this portfolio approach might seem attractive, although the reality may not support this. Every individual PPP has its own unique characteristics, and so co-ordination of the documentation for a group of PPPs can present challenges. Furthermore, the inherent risks in PPPs, which are identified at the contractual interfaces between the parties, may be multiplied by a number of PPP sub-projects. Whilst progress has been made in some sectors towards standardising documentation, nothing can reduce the number of risk interfaces.

### **Which PPP structure is appropriate?**

Assuming that a PPP scheme is the favoured route for providing a public service, what kind of PPP should be used?

PPPs can be characterised by three generic types:

- (a) the provision of the availability and maintenance of an asset

e.g. schools, prisons, hospitals, housing for the military, roads and government offices, where the supply of customers/users and the operation of the asset remain with public sector staff or the government;

- (b) the provision of a service involving the construction of an asset

e.g. power stations, water supply and sewerage services, gas distribution, telecommunications, IT, military support services, airports, and some municipal services, where the asset is operated by the private sector; and

- (c) a combination of the above

e.g. railways, mass and urban transit systems, air traffic control, ports, toll-roads.

Type (a) PPPs are relatively easy and quick to implement. In many ways they represent deferred payment mechanisms. They can often be characterised as an extension of property deals. The risks are perceived as lower, and the opportunity for risk transfer to the private sector limited and controllable.

Type (b) PPPs more closely represent the traditional concepts of non-recourse cash-flow financing.

Type (c) PPPs are usually structurally more complex, possibly due to the need for public subventions in some form, or by the creation of private sector monopolies in some component of service provision. PPPs in these sectors are less common. It is in these projects that the concepts of “public-benefit” type PPP structures are being explored. It is still too early, however, to know whether they will be successful.

### **What makes a successful PPP structure?**

- **Banking considerations**

Governments should always keep in mind that, for most PPP ventures, 75-80% of the money to be raised for investment in new assets will be debt. Furthermore, the Lenders may well be the same banks that government employees place their well-earned salaries into at the end of each month!



“Good banking is boring banking”, so goes the saying of some eminent and successful bankers. PPPs should not be based on experimental techniques, but on well-practised principles and procedures. If the margins of risk sought are too tight, or the risk allocation unreasonable, then failure on the part of either party will not be long in coming, and default will follow to the cost of all. The difficulties of restructuring, renegotiating, or at the limit re-bidding, a PPP concession should not be taken lightly.

Similarly, too sophisticated a funding structure can also be a nightmare when events do not follow the pre-determined pattern, which invariably they do not.

A common pitfall is to mitigate interest rate or currency exposures through swap contracts in the capital markets. However, PPP practitioners should note that such contracts are not directly linked, but are complementary, to any loan agreements. Therefore, should project construction suffer delays such that loan draw-downs slip and final project commissioning is likewise delayed, then loan interest and repayments, which normally are linked to the anticipated date of commercial operation, will similarly slip. Lenders may, more often than not, accept such adjustments to their payment pattern as part of the normal risks of project financing, but capital markets are less flexible, and the re-negotiation and unwinding of swap positions can be very expensive.

- **Structure of the Project**

The decision as to the form of PPP to be adopted for any particular project is, therefore, largely dictated by expediency. The structure chosen must:

- be clear, transparent, and understandable to all
- represent a fair allocation of risks to both parties, such that a true long-term partnership is reasonably achievable
- be workable (i.e. contract performance must be measurable)
- be as simple as possible, when judged against the best project financing principles
- be negotiable in the timeframe allowed.

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## CHAPTER 2

### SPECIFYING THE PROJECT EFFECTIVELY

by

**Mark Lane, Masons**

#### **Introduction**

In order to achieve the three aims of:

- delivering value for money
- harnessing the private sector's efficiency and ability to innovate
- very substantial risk transfer from the public to the private sector,

project specifications for PPP projects are written as service output specifications rather than as prescriptive specifications. In these, the Authority sets out, often in considerable detail, the design and materials criteria of the capital element of the project that it wants to procure.

#### **What is an output specification?**

Perhaps the best way to describe what a service output specification is, is to take an example.

Let us assume that an Authority wishes to procure a new motorway on a privately financed basis.

Under the traditional procurement method which governments have been using for many decades, the Engineering Department of the Authority would prepare a detailed specification of the length of the road, the width of the road, the number of lanes, the type of foundations for the road, the subsurface material, the surface materials, the height and composition of the crash barrier to be erected on the central reservation, the depth, width and length of the culverts, etc.

In the case of a motorway being procured as a PPP project, at its purest level, the service output specification would simply state that the Authority requires a means of allowing vehicles to travel from point A to point B which must comply with the current and future laws of the state in which the Authority is located and which must have a service life of, say, 25 or 30 years. It is then open to the private sector to produce a bid that is responsive to this service output specification. Precisely because the specification for the motorway has been described in such open-ended terms, there is maximum opportunity for bidders to produce innovative approaches to satisfy the service output specification proposed by the Authority.

From the basic description of a service output specification set out above, it can be seen that this means of procuring projects requires a major change in thinking and attitude on the part of the Authority.

## **Authority control**

The example given above is a service output specification in its purest form. If this example lies at one end of a spectrum, and a traditional closely-defined specification for the construction of a motorway lies at the other end of the spectrum, normally in practice the service output specification approach adopted by an Authority for a PPP project will lie somewhere between the two.

That is to say that the Authority will often specify the nature of the motorway to some degree in its ITT. The extent to which in fact the Authority does this will depend on a considerable number of factors.

These factors will include the degree of willingness of those managing the project within the Authority to adapt to the service output specification way of thinking. Also relevant, in some cases, will be the stage of maturity that the project planning has reached.

For example, in the case of a motorway project, if the Authority is intending to obtain planning permission for the road before it goes out to tender, then inevitably some degree of specification of the road will have occurred before the Project is put out to tender. This will have been necessary in order to obtain the planning permission. However, if the motorway project is put out to tender before the process of obtaining planning permission has started, then because the planning permission process can restrain the creative innovations from the private sector there is greater scope in the tender documentation itself to allow for a specification which is a true service output specification.

## **The consequences of failure to achieve service levels**

Service output specifications are often adopted because an Authority is not only procuring the construction of, say, a road but also the operation of that road for 25 years or more. Therefore it follows that the penalty for non-performance by the Project Company lies in the failure of the Project Company to achieve the service levels required in relation to the Project.

For example, in the case of a road, it may be that one of the many hundreds of aspects of the service output specification requires there to be no more than three fatal accidents on that stretch of road during the course of the year. If there are more than that, then penalties may be placed on the Project Company. Alternatively, the requirement to minimise fatal accidents can be turned around by the Authority, and the Project Company can be incentivised by being granted an extra sum of money by the Authority if the number of fatalities on the road is reduced below a certain threshold.

To take another example, if the Project in question is a waste water treatment plant, then the service output specification will require the winning bidder to provide plant which produces treated effluent to a certain quality for 25 years or so. This will be on the assumption that the untreated influent coming into the waste water treatment plant lies within certain parameters. These parameters will relate to such matters as flows and loads. Flows are the volumes of water and waste water that enter the treatment plant; loads are the constituent elements of the water/waste water, e.g. the chemical and biochemical elements.

If the Project Company in such a waste water treatment project fails to treat the waste water so as to achieve the required output specification, then penalty deductions are made to the sum of money that would otherwise be paid to the Project Company from the Authority.

## **Output specification and innovation**

As stated above, in practice pure output specifications are rare for all sorts of reasons. For example the Authority may be unable to give up some of its control of the Project, or politically it may be unwilling to let go entirely of its control of the Project. However, for a PPP project to succeed in delivering value for money, it is essential that the private sector is allowed to produce innovative solutions. This means moving, to some extent at least, to a service output specification approach to the Project.

Careful thought will therefore have to be given by the Authority to such matters as the extent to which it does wish to specify the means by which the service levels will be achieved. It should also consider the need to link the period of the concession to the expected asset life of the various assets comprised in the concession. The more the Authority is prescriptive and directive, the less scope there will be for innovation by the private sector. Experience in the UK of PFI projects is that often the innovative elements will involve the generation of a third party income stream, for instance by innovative use by the Project Company of surplus land.

One way of avoiding a prescriptive specification is for the Authority to issue an ITT comprising a draft Project Agreement and draft technical appendices which are, at least in part, based on an output specification. The Authority should require all bidders to put in a bid that conforms to the draft Project Agreement and technical appendices. At the same time, however, the Authority can invite variant bids which may give rise to entirely different solutions to the requirement of delivery of services to satisfy the Authority's service output requirements.

### **The need for careful analysis and planning of the output specification**

It can be seen from the discussion so far that very considerable and careful thought needs to be given by the Authority to the nature and level of service that it requires in relation to the project. This is likely to involve a number of months of detailed discussions within the Authority and also between the Authority and its various professional advisers. The result of this process will be that the Authority arrives at a view as to the nature and level of specification that it requires. It should have worked out the nature and extent of the information to be provided by the Authority to the bidders. It should also have a clear specification for any elements of the project that will be contributed by the Authority itself.

It cannot be over-stated how critical this stage of the project planning is. A failure by the Authority to get the output specification right can be disastrous. It could result in a failure to achieve value for money in connection with the project, little or no transfer of risk to the private sector and, at worst, the failure of the procurement process for the Project.

On a practical level it should be borne in mind that the preparation of the service output specification is not purely a matter for the engineers and technical consultants employed by the Authority. It is absolutely vital that the service specification is easy to understand and written in clear terms in a manner that connects in a seamless way with the general clauses of the Project Agreement. To this end, it is important that the Authority's engineers and technical consultants work closely with its legal team in order to produce the right result.



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## CHAPTER 3

### THE BID PROCESS

by

**Brierley Stubbs, Consultant, B2B Strategy Solutions**

#### **Introduction**

The PPP bid process is designed to procure from the private sector a long term solution to the development of new public facilities and the delivery of public services. The process concludes with the appointment, by the Authority, of a Project Company capable of funding, building, operating and maintaining the Facility for a specified period (the concession) of, typically, 25 years.

The Authority requires the Facility to meet the needs of the public services to be discharged to the community and to be available on an ongoing basis and throughout critical periods of service delivery, all at a cost affordable to the community.

This procurement process ensures that “best value and service” are achieved throughout the project life cycle, from construction to commissioning and through the concession. The process is therefore lengthy and quite different to the one used for the procurement of construction projects.

Bidders for PPP projects on the European mainland will include Project Companies already experienced in PPP/PFI in the UK. Through a process of training and specialist advice, the Authority must become familiar with this type of procurement to be in a position to engage the market successfully.

For the Project Company, the process is lengthy, expensive and risk loaded right up to financial close when the deal is signed. From that point onwards, the successful bidder is tied to a construction and concession period in excess of 25 years. The effects of wrong decisions made during the bid process are not easily mitigated and will have a significant impact on the investment. It is not easy to escape from a problem project; even the option of refinancing the Project may be prohibited by government claw-back rights.

Penalties for non-availability of critical parts of the Facility during the service period can also be significant, with interruption to service resulting from maintenance activities presenting a high risk exposure to such penalties.

There is much at stake, but the rewards can be significant. Even the achievement of “preferred bidder” status can bring with it an increase in share value and a wide range of new opportunities.

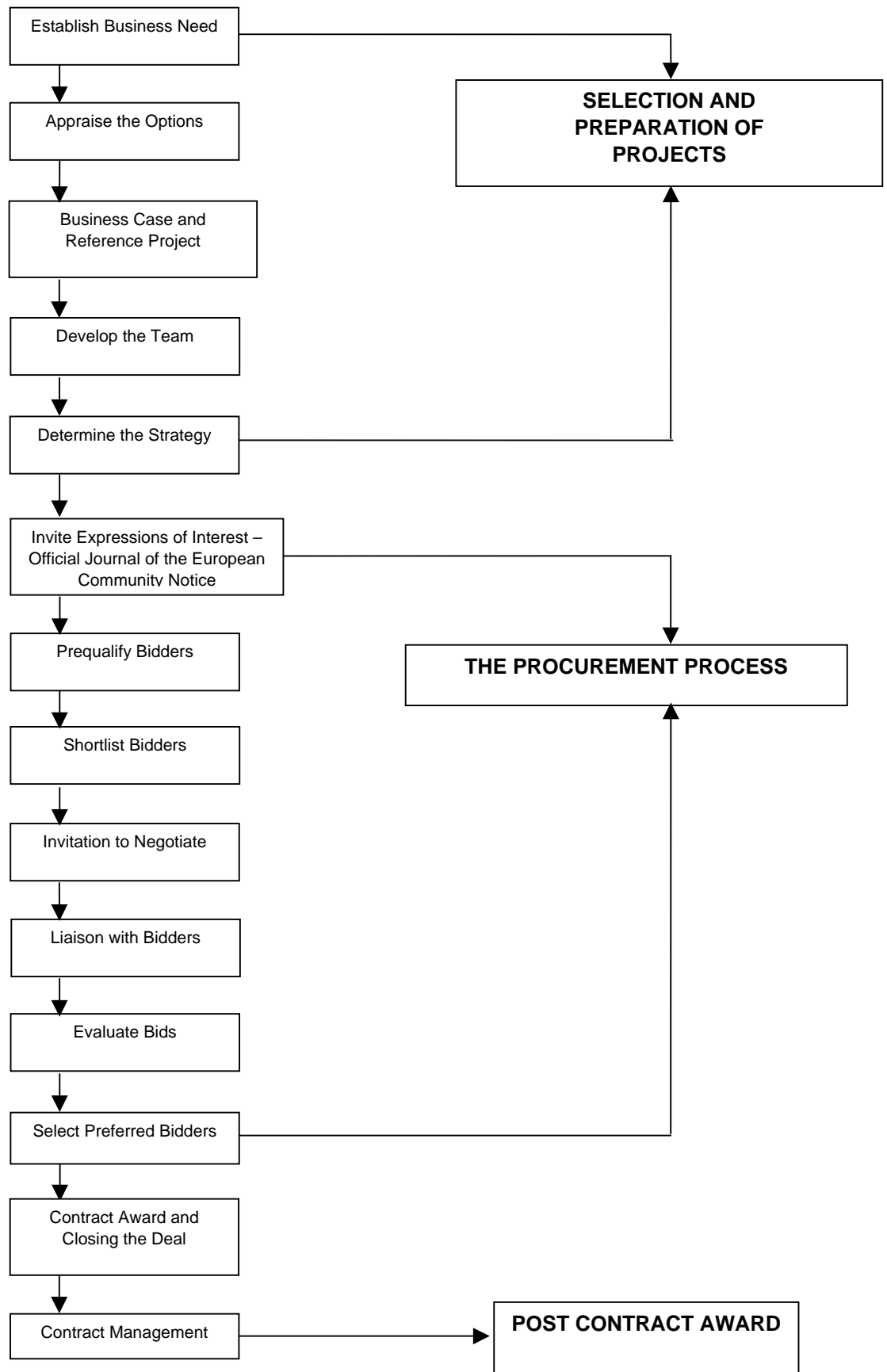
In this chapter we consider the key stages and phases of the bid process, with Project Company issues highlighted in the grey boxes.

Private sector participation in PPP projects - key considerations:

- competition - which companies/consortia? - and their strengths
- leading role/investor or sub-contractor? - equity stake holding should be supported by the company business strategy
- cash flow - period required to fund cost of bidding and construction
- likely return on investment and timescale
- scope of experience - constructor or service provider or both?
- project finance - from internal reserves or external debt?

# 1 The key stages of the bid process

## 1.1 The bid process flowchart for the Authority (Figure 3)

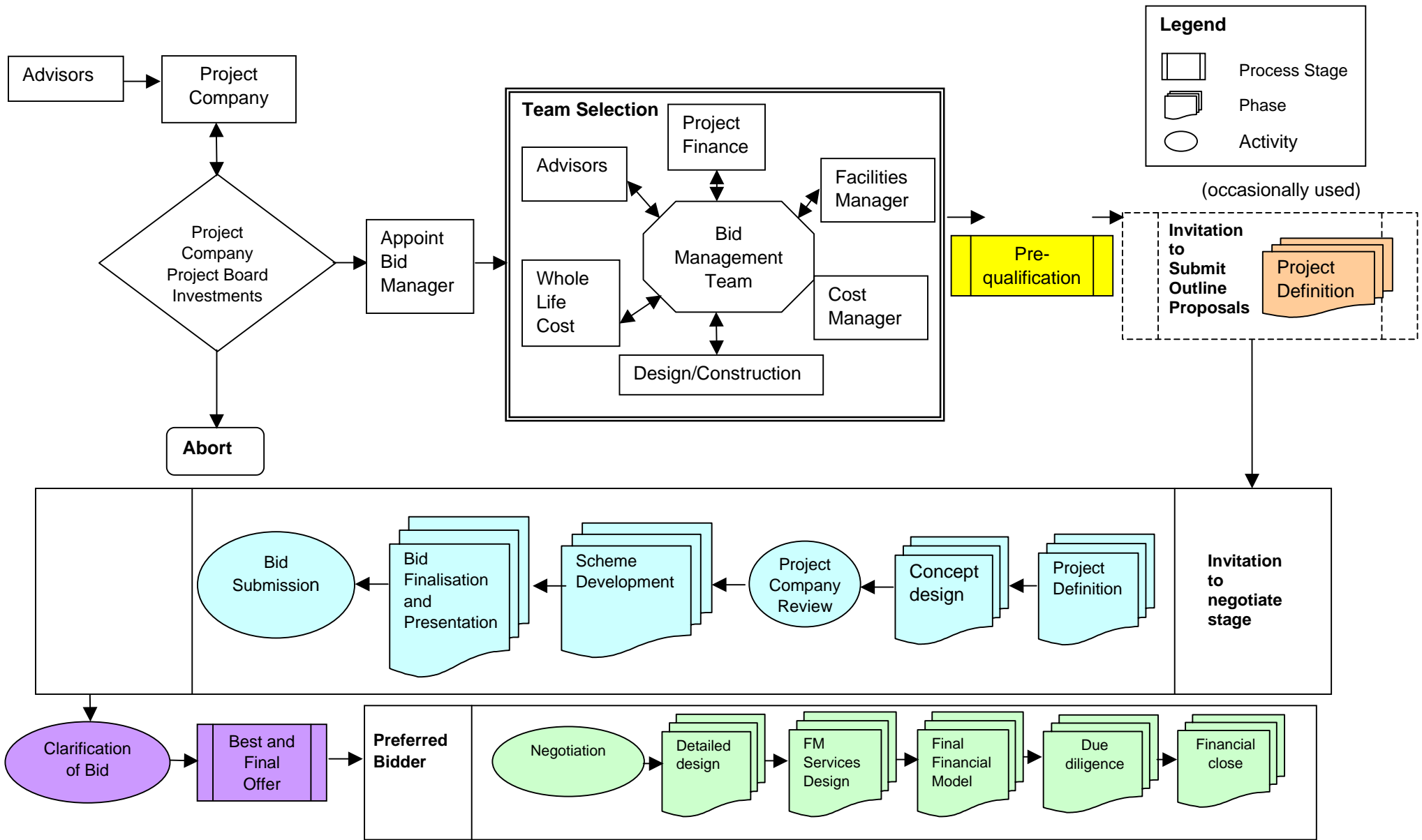




## 1.2 Typical timescales and bidders list for each stage

Process Stage	Relevant Factors	Number of Bidders	Notional Duration
Business Case - Official Journal of European Community Notice	<ul style="list-style-type: none"> <li>This varies depending upon the quality and detail of project briefing. Relevant factors are: <ul style="list-style-type: none"> <li>- project size</li> <li>- complexity</li> <li>- political issues (central and local government)</li> <li>- planning consents</li> <li>- legal issues</li> <li>- frequency of PPP review panel meetings</li> <li>- public consultation process.</li> </ul> </li> <li>Timescale drivers include: <ul style="list-style-type: none"> <li>- political targets</li> <li>- community/end user needs</li> <li>- competition from other PPP projects.</li> </ul> </li> </ul>	Open	12 Months
Official Journal of European Community Notice - Prequalification	<ul style="list-style-type: none"> <li>This varies depending upon: <ul style="list-style-type: none"> <li>- the number of respondents</li> <li>- the evaluation process</li> <li>- the time allowed for submission of prequalification response</li> <li>- whether or not an Invitation to Submit Outline Proposals is included.</li> </ul> </li> <li>Evaluate pre-qualification submissions.</li> </ul>	4 - 8	3 Months
Invitation to Negotiate Stage	<ul style="list-style-type: none"> <li>Compilation of the Authority's Requirements document will overlap with the pre-qualification phase. The quality and detail of this information is critical and will impact upon the Invitation to Negotiate and Best and Final Offer stages.</li> <li>Date for submission of Invitation to Negotiate bid proposals is determined within the Invitation to Negotiate document. This will be a minimum of 3 months.</li> <li>Evaluate the Invitation to Negotiate proposals.</li> </ul>	4	3 Months  3 Months  3 Months
Best and Final Offer stage	The timescale for Best and Final Offer phase will vary depending upon the outcome of the Invitation to Negotiate evaluation.	2	3 Months
Preferred Bidder - Financial Close	<ul style="list-style-type: none"> <li>Due diligence examination of proposals.</li> <li>Development of Project Agreement.</li> <li>Agreement of tariff and payments.</li> <li>Project Company alignment of sub-contracts.</li> </ul>	1	9 Months
<b>Contact Award</b>		<b>Total</b>	<b>36 Months</b>

### 1.3 Bid process flowchart for the Project Company (Figure 4)



## 1.4 Compliance with EU procurement legislation

### (a) Inviting expressions of interest

The procurement of public sector works must comply with the requirements of EU legislation. In particular, the number of bidders involved at the various stages and the procedure leading to appointment of a preferred bidder will need to conform to the EC procurement Directives.

Under this legislation all supply contracts over a specified value must be advertised. This requires a notice to be placed in the Official Journal of the European Community to invite expressions of interest from potential bidders in the Project. Even if the full business case is still to be finalised, a Prior Information Notice of the Project can be placed in the Journal. This will help determine the potential availability of bidders.

The Journal notice should include:

- a description of the Project and the services required
- a declaration of commitment to procurement of the scheme under PPP/PFI
- a statement of full information requirements for bidder assessment (financial, technical ability, relevant experience)
- an indication that EU procurement legislation has been complied with
- the procurement procedure e.g. negotiation with call for competition.

### (b) Prequalification, negotiation, Preferred Bidder selection, closing the deal

The route normally adopted for UK PFI projects is the negotiated procedure. Competition should only begin after the Project has been evaluated for affordability and viability and endorsed by an independent adviser.

Therefore, the key considerations for the Project Company pre-qualification are:

- authority PPP profile and relationship (commitment, experience, finance, advisers)
- type of service required
- number of bidders to be engaged at each stage
- information required to be submitted
- programme timescale to financial close.

The sequence of events following the notice in the Journal should include:

- a bidders' briefing day, open to all responders to the notice, where the Authority provides information, answers queries and demonstrates both its commitment to the Project and the feasibility of the Project
- pre-qualification and shortlisting of candidates
- Invitations to Negotiate (ITN) based on an output specification
- a bid evaluation period leading to the appointment of a preferred bidder

- negotiations with the preferred bidder leading to an agreed deal within the Project affordability limits
- completion of the Project Agreement.

The Project Company will expect the bid process:

- to be efficiently managed by a competent Authority so as to keep bid costs to a minimum
- to include a realistic Authority bid strategy with minimum duration up to financial close
- to consist of low initial bid costs which increase only as the prospect for success increases
- to be realistic with achievable project affordability targets and PSC calculation
- to have scope for innovation and VFM solutions
- to include a comprehensive Authority output specification and suitable Authority liaison/plan
- to take a practical approach to the level of information to be submitted by bidders.

### (c) Forthcoming changes to the European public procurement route

Early in 2003 the European Commission announced that it proposes to introduce "... a package of new measures to simplify, modernise and radically improve the functioning of Public Procurement markets".

The measures are currently passing through the European Parliamentary process, and after adoption in early 2004 they will enter force at the end of 2005.

The procedural changes will cover three main areas:

- competitive dialogue - it is intended to permit transparent dialogue in the period from OJEC notice to Invitation to Negotiate, but without divulgence of discussed solutions: exclusive dialogue with the Preferred Bidder post tender submission will only be permitted for the purpose of obtaining clarification/confirmation
- awarding framework agreements
- e-procurement via dynamic purchasing systems and electronic auctions.

Market liberalisation in the Utilities sector will also be addressed.

Various other initiatives are being progressed, including a review of the current remedies for non-compliance with the procurement procedures. New remedies may include:

- a cooling off period after announcement of Preferred Bidder
- a right for unsuccessful bidders to challenge and to set aside the Project Agreement.

## 2 The parties

### 2.1 The Authority

The Authority is normally a central or local government department, such as the Ministry of Defence, or an Education or Health Authority. The Authority's project organisation typically includes:

- an investment decision maker

i.e. an individual or a committee within the Authority/Department.

- a project owner

often the Authority's Chief Executive, who is accountable to the investment decision maker for the Project and its budget

- a project sponsor/director

i.e. an individual responsible to the Project owner for the Authority's interest in the Project. This person should be a direct employee of the Authority and will normally have a background within the operation of the service to be provided

- a project steering board

which will be the key decision-making and approval forum. The Project Board will include representation from the Authority's estates, IT, finance, internal audit and personnel departments as well as representatives from Project Company and other stakeholders.

## 2.2 The Project Company

### (a) Types of bidding company

The Project Company could be:

- a single company, for example, a construction company
- a subsidiary company established specifically to bid for PFI projects
- a JV between two or more companies
- a group of companies each with an equity share in a consortium (in which case, if the consortium is successful in bidding, the Project Company will be formed prior to financial close).

### (b) Equity shareholders

The types of company which typically take equity (i.e. shares) in a Project Company will vary depending upon the sector (health, education, defence, etc). All shareholders must be prepared to make capital funds available for investment. The ratio of equity share will depend upon the capital invested, the revenue opportunity for each shareholder and the shareholder's ability to take and manage risk.

Typically shareholders may include:

- Multi-disciplinary engineering consultancy companies (providing design, architectural, project management, facilities management and other services): these companies will often employ public sector specialists such as educationalists or clinicians
- Construction companies (with in-house design and FM capability)

- Banks or venture capitalists
- FM companies
- Companies specialising in the service to be provided (such as military training, healthcare or security services).

### **3 Managing the bid process (See Figure 3)**

#### **3.1 Select and prepare the Project**

##### **(a) The outline business case**

The Authority should draw up an outline business case. This supports the case for investment and the PPP approach. The information will be included in the Invitation to Negotiate and is important information for the bidder in evaluating and selecting the project opportunity. It should include:

- a clear definition of service delivery, the facilities required and the criteria for meeting future community needs
- an output specification which defines the particular services to be delivered (e.g. clinical requirements, curriculum specialism or military operations accommodation)
- a “reference project”, i.e. a specific, possible, affordable solution to the output requirement as a combination of capital investment, operations, maintenance and ancillary services
- affordability calculations in sufficient detail to show the Project as affordable on a year-by-year basis and including a quantification of project risks, e.g. cost and time overruns and service underperformance
- time and deliverability.

A comprehensive whole-life cost model (estimating costs for financing, design and construction, refurbishments to retained estate, life-cycle replacements, operation and maintenance), together with identified and evaluated risks, will be necessary to support the “reference project”.

The reference project can be the basis of the Public Sector Comparator calculation (see Chapter 4).

##### **(b) Determine the strategy**

The high cost to the bidders (in time, resource and money) of working up a full bid to the Authority in evaluation of the bids, and for all parties in negotiating and reaching financial close should be a key consideration. Key decisions to be made are:

- determine the number of bidders at each stage
- determine how many stages of selection are appropriate: the Invitation to Submit Outline Proposals during the pre-qualification phase and the submission of Best and Final Offer prior to preferred bidder phase may not be necessary

- consider how much information to request during the pre-qualification and Invitation to Negotiate phases (e.g. sub-contract details are unnecessary until the preferred bidder phase)
- when to seek fully costed proposals: more reliable costs are achieved after negotiation of the Project Agreement and the main sub-contracts (the Construction Contract and the FM Contract)
- bid evaluation criteria
- when to appoint the Preferred Bidder.

### Project selection by the Project Company

The Project Company will then make the decision whether or not to proceed. It will consider:

- whether the Project fits in with its corporate strategy?
- the availability of skills and resources for bidding
- the project funding available
- the willingness of JV partners and sub-contractors, and the availability of specialist advisers
- the JV memorandum of agreement, and the agreement of the bid manager
- the client bid strategy suitable to manage the bid at lowest cost to bidders
- its knowledge of the competition and its strengths and weaknesses
- benchmarks, e.g. bid history in the sector or with the Authority, and whether it has been awarded similar projects
- relevant sector experience and available specialist knowledge and expertise
- the prospect of achieving Preferred Bidder status
- the outline business case, affordability and the Public Sector Comparator calculation
- the risks identified, and whether these have been evaluated as manageable.

## 3.2 The procurement process

Following the placing of European Journal notices and the pre-qualification process described above, a shortlist of bidders is drawn up to participate in the following phases:

### (a) Invitation to Negotiate

This may be a development of the Memorandum of Information. This is a very detailed and comprehensive document prepared by the Authority which describes:

- the services required in output terms
- boundaries and constraints on service, scope or engineering
- the required facilities, which may include “room plans”, minimum floor areas etc.
- proposed contractual terms of the Project Agreement, including the length of the concession and the payment mechanism
- the timetable and process for negotiation

- the criteria for evaluation of the bids
- details of the information to be submitted
- the extent to which variant bids are allowed (a “standard bid” should always be required to give a common starting point in the evaluation process)
- the outline business case and Public Sector Comparator calculations.

#### **(b) Project information and liaison with bidders**

See Figure 4 for the bid process diagram for the Project Company.

The opportunity for the bidders to liaise with the Authority’s project team for the purposes of clarifications and queries and to share innovative ideas is both essential and valuable.

Clear lines of communication during the Invitation to Negotiate phase should be stated, and meetings scheduled in advance. All meetings should be treated as confidential to each bidder, except where this results in a modification to information in the Invitation to Negotiate document.

The first liaison meeting should be scheduled to take place after a brief period for bidders to familiarise themselves with the documentation. This is the project definition stage.

The next suitable stage in the bid process for a meeting is after the bidders have developed their concept design. This allows the bidders to test their innovative solutions and unique selling points against the Authority’s expectations.

During this liaison process the Authority and bidder relationship is developed. Strong relationships, and a mutual understanding of business drivers and objectives, will be important during the construction phase where existing facilities operate concurrently, and in the concession phase. The evaluation process should include consideration of how the teams may work together and solve problems. Parts of the Authority’s organisation may transfer to the Project Company during the concession.

The Project Company will require a minimum bid cost approach by the Authority, based upon:

- an outline proposals and agreements in principle approach in the early stages of process
- a schedule of pre-arranged, bi-lateral or multi-lateral client liaison meetings
- a willingness by the Authority to declare “no go proposals” as early as possible and to maintain confidentiality of innovative solutions tabled
- heads of terms for sub-contracts (with full sub-contract terms to be developed only at the preferred bidder stage - see Chapter 10 for a discussion of sub-contracts in more detail).

#### **(c) Receipt and evaluation of bids**

Liaison continues into this stage, when the Authority requires clarification of proposals to allow a full evaluation, especially where variant bids have been submitted.



The Authority has a responsibility to progress the bid evaluation, due diligence, clarifications and negotiations as quickly as possible to minimise bid costs.

The Invitation to Negotiate document should indicate whether it is the Authority's intention to seek Best and Final Offers on the basis of clarified bids.

Authorities should resist re-opening negotiations on key terms.

#### **(d) Preferred Bidder**

Upon selection of the Preferred Bidder the PPP project should be retested against Value for Money (VFM) and affordability criteria and the Public Sector Comparator (PSC).

The Authority must be able to demonstrate that the PPP project gives better VFM than could be achieved using a traditional procurement route. A significant element of this will be the transfer of risk to the Preferred Bidder.

Risks transferred to the private sector should therefore be costed and added to the Public Sector Comparator.

#### **(e) Project Agreement and financial close**

In theory, final negotiations between the Authority and the Preferred Bidder should be limited to completing the transaction documentation (Project Agreement, alignment of sub-contracts, etc.) and satisfying the requirements of the Lenders, as few major commercial issues should still be outstanding when the Preferred Bidder is appointed.

The Project Company, its sub-contractors and its Lenders should already have agreed with the Authority the principal commercial terms of the project documentation, which by then will be in advanced form. All Project Company parties will have agreed internal risk allocation, and the Lenders will have undertaken due diligence in relation to unusual risks.

In practice, this is the most costly bid phase to the Project Company, involving the extensive use of expensive legal, financial and technical advisers. The Authority's financial and legal advisers will also have a significant role to play during this phase.

The Authority's and the Project Company's advisers will be busy co-ordinating and agreeing their documentation, including:

- detailed schedules of project documentation
- resolving drafting issues
- drafting the construction and FM sub-contracts
- preparing financing documentation, including agreeing tariff payments, cash-flows, indexation, etc.

Signature of the Project Agreement and financial close are likely to be simultaneous.

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## CHAPTER 4

### PUBLIC SECTOR COMPARATORS

by

**Martin Blaiklock, Consultant, Energy & Infrastructure Project Finance**

#### Introduction

This chapter describes key issues which arise in the creation and use of Public Sector Comparators (PSC) and their inter-relationship with value for money assessments.

The PSC for any proposed public service investment is the essential ingredient of the government decision as to whether a PPP project offers an advantage over the conventional public sector alternative. The PSC represents the value of the public sector option.

The PSC also plays a secondary role in that it represents the yardstick against which all PPP proposals for a particular public service investment are measured.

#### Background and methodologies

In the UK HM Treasury documents define the PSC as:

“a hypothetical risk-adjusted costing, by the public sector as a supplier, to an output specification produced as part of a PFI procurement exercise. It:

- is expressed in net present value terms;
- is based on the recent actual public sector method of providing that defined output (including any reasonably foreseeable efficiencies the public sector could make); and
- takes full account of the risks which would be encountered by that style of procurement.”

Value for Money (VFM) is the assessment made of a particular PPP/PFI proposal after taking into account potential risks, risk transfer and allocation, etc. in comparison with the public sector alternative.

This area can often be contentious for a number of reasons.

- PSC and VFM guidelines are often drafted by economists rather than commercial PPP investors and developers or bankers. The former are accustomed to evaluating expenditure profiles in “real” or resource terms, whilst the latter operate in the actual, or “nominal”, world. Both perspectives may be justified for their own purposes, but PPP practitioners should be aware of the differences. For example, if all project investment analyses were undertaken in real terms, project funding would be under-budgeted, as the effects of inflation would be excluded from the assessment. In periods of high inflation the differences would be significant, leading to project implementation disasters.
- Neither the PSC nor the VFM calculations are totally objective. No forecasts can be. However, there is often a tendency for governments and politicians to treat them as such.

- VFM calculations include an assessment of risk. Unfortunately, however, risk assessment is highly subjective and personal. What is a risk to one person may not be to another. Governments should therefore not be too prescriptive in their guidance as to how to handle risk in these VFM calculations.

Sometimes sophisticated analytical techniques may be employed to assess risk, e.g. “Monte Carlo” analysis. While such methods may be intellectually attractive, there are also dangers:

- great care has to be taken over the selection of data for such analysis
- inter-relationships between variables are often ignored, skewing the data
- deficiencies in the computer model used to calculate the results can become hidden
- too much weight is often placed on the results of the analysis, which is not justified by the integrity of the underlying calculation process: the results may also be impossible to interpret with any degree of confidence.

Notwithstanding the above, such risk analysis and allocation is a valid part of the evaluation process for PPPs, providing both care and awareness are used.

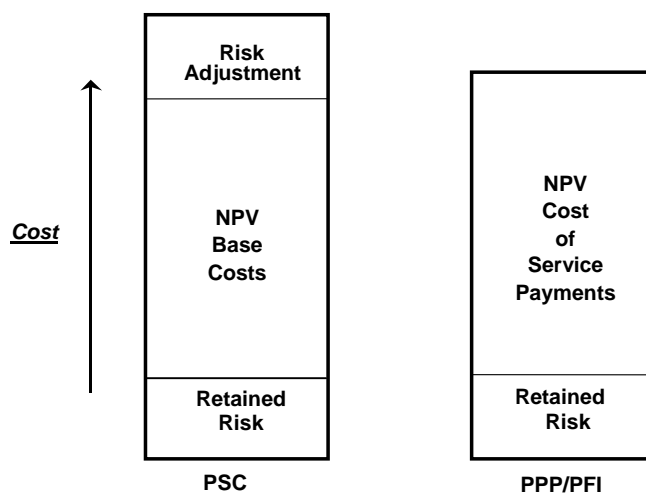
### **The concept: the UK approach**

It is instructive to compare and contrast the methodology of creating PSCs in the UK and Australia, two markets in which a number of PPP/PFI-type projects have been successfully implemented in recent years. The two approaches contrast well and highlight the issues of contention.

In the UK the basis is as shown in Figure 5. The PSC is derived from:

- procurement estimates for full life cycle capital costs; construction, project management, professional fees and commissioning costs, i.e. the cost of all items that might have to be acquired over a period identical to that offered under the PPP
- operating cost estimates (it should be noted that the depreciation does NOT count as a cost, even though some tax allowances are available in respect of this)
- estimates of third party revenues
- estimates of asset values on transfer at concession maturity
- sensitivity analysis on key variables
- risk assessment taking into account probabilities and effects.

**Figure 5: Principles on which the PSC is based in the UK**



Some additional points are worth noting about the UK approach:

- The new guidance from the government (the “Green Book”, published in January 2003) demands that practitioners in the first instance categorise projects by type, and then add a component for cost overruns (termed the “Optimism Bias”) assumed at a level according to project type. This concept is based on the assumption that public sector project promoters will always underestimate project cost projections. Such increments can be as much as 44% of base costs for certain (more complex) project types. It is then for the practitioner to justify any assumed increment less than this in the particular case.

Similarly, for some project types up to a 12-month delay in project completion must be assumed - anything less has to be justified.

PPP practitioners need to ascertain why such cost over-runs and/or delays might arise, e.g. changes in project specification, and whether such reasons can be validly applied to the PSC assessment in question.

- The discount rate to be used for all UK PPP/PFI-type calculations is laid down in the “Green Book”. From 1991 until 2002 the discount rate used was 6% “real”, based on what the government described as the “Time Preference Rate”. Although the value of this rate may be difficult to arrive at without an extensive knowledge of economics, in actual terms it approximated to the cost of capital for the government at that time.

Today’s market price (i.e. over 10 years later) for 20-30 year UK government gilts or bonds is around 6%, and this is a “nominal” interest rate, i.e. it includes inflation of 2-3%. It is therefore unsurprising that the continued use of a 6% “real” discount rate became a contentious issue, as it could potentially lead to erroneous government decisions on PPP projects. A discount rate of 3-3.5% ‘real’ might be more realistic.

The new version of the Green Book (January 2003) in fact now recommends that a rate of 3.5% be used, albeit that the PSC analysis should also include a component to reflect “Optimism Bias” (see above).

It can be seen that such change in the discount rate is significant and, “Optimism Bias” inputs apart, could on its own change a favourable PPP assessment into unfavourable one. It is no surprise, therefore, that there remains some argument as to which are the appropriate PSC analytical tools and data to use!

- Operating costs should include full staff costs and overheads for managing the Project.

In its guidelines the government suggests that the costs of managing the public sector option may be significantly higher than those for the PPP alternative. This may, indeed, be true, since the private sector concessionaire may have access to cheaper resources and may be able to employ such resources more efficiently and effectively.

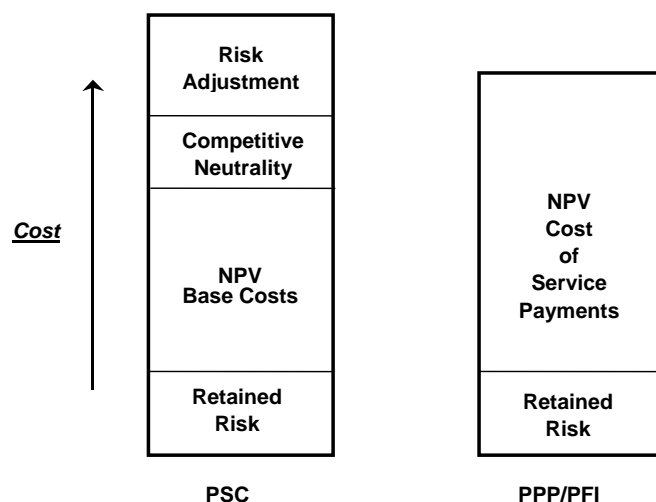
However, this argument needs to be treated with care, as there is no doubt that the management personnel required by the public sector to manage a PPP project must be experienced and knowledgeable in finance and commercial law, and will therefore be expensive.

- Quite often the public sector self-insures, whereas the private sector has to take out insurance at market rates. The PSC assessment, therefore, needs to include an estimate for insurance.
- If any existing public asset forms part of the proposal, then the opportunity costs of that asset should be included. The benefits arising from the disposal of surplus assets as a result of the PPP project should be assessed and included.

### The Australian approach

The Australian (Victoria government) approach is in many respects similar to that of the UK. The underlying principles in arriving at basic PSC costs are the same as for the UK, but they include an additional “Competitive Neutrality” component which provides an adjustment to remove any net competitive advantage accruing to a government business by virtue of its public ownership. This component is, in effect, a more overt way of dealing with state regulation, stamp duty and taxation issues, which are otherwise included as a general base cost item in the UK PSC.

Figure 6: Principles on which the PSC is based in Australia



However, the main difference between the UK and Australian approaches is that the emphasis under the Australian regime is more overtly on a “cash-flow” basis of analysis, as opposed to an accrual basis, with the PSC cash-flows prepared in “nominal” terms, as opposed to “real” discount rates as in the UK.

The difference between “real” and “nominal” discount rates can be exemplified by the formula:

$$\text{Nominal discount rate (\%)} = (1 + \text{real discount rate \%}) \times (1 + \text{inflation rate \%}) - 1$$

For a real discount rate of 3.5% and inflation rate of 2.5%, this gives:

$$\begin{aligned} \text{Nominal discount rate (\%)} &= (1 + 0.035) \times (1 + 0.025) - 1 \times 100\% \\ &= 6.0875\% \end{aligned}$$

The use of “nominal”, as opposed to “real”, discount rates in Australia is fundamentally different to procedures used in the UK. Arguably, it is more realistic. It is based on estimates of actual cash-expenditures, as opposed to resource costs (i.e. excluding inflation). Therefore, as the possible impact of inflation will have been factored into the PSC calculations from the outset there is less risk of facing budgeting problems for long-term investment programmes under such a regime. In the UK the inflationary impact on project estimates has all too often been passed over or even ignored, particularly in some infrastructure projects, only to be exposed at a later date.

There are one or two other variations of note under the Australian regime:

- there is no “Optimism Bias” concept, as in the UK. Analysts should, though, undertake normal sensitivity analysis on costs and timetable based on the nature and complexity of the PPP scheme under study
- there is greater clarity with respect to disclosure to bidders. The Base Cost and Competitive Neutrality components may be disclosed, but the risk elements (Transferable and Retained) are not
- for Government agencies which have the same taxation obligations as private sector firms, a post-tax PSC basis should be prepared and a post-tax discount rate employed. In the UK where the PSC calculations are in “real” terms (i.e. excluding inflation), the starting position is one of tax neutrality between the public and private sector options. However, this topic will remain subject to continuing discussion as the issues are less easily resolved when viewed on real terms
- optimal risk transfer is sought, not maximum risk transfer
- as in the UK, depreciation of project assets is excluded from the PSC. It should however be noted that if depreciation might impact on any payments that the governmental agency might make as (or in lieu of) tax, an adjustment must be made to reduce the PSC accordingly.

#### **Other Issues to be considered in relation to the PSC assessments**

- One component of cost, which is often ignored, is the incremental cost of the private sector bidding for PPP/PFI concessions. Whereas the recovery of bid costs for the winning bidder will (most probably) be included in the prices for the service provided under the concession, the incremental costs for the losing bidders

may be considerable, and these represent a real and immediate loss for these companies. Such costs represent a wasted economic activity and ultimately, in the macroeconomic sense, reduce the taxation income. It would therefore be reasonable for bidders' additional costs for the PPP/PFI approach to a project, as against the costs of bidding for conventional procurement, to count against the PPP/PFI assessment.

- In some transportation PPP projects government has recognised that bidders have incurred very significant bidding costs, and some compensation has been paid to the losers (e.g. Croydon Tramlink). However, to date there is no set format to such payments nor any underlying mechanism for valuing such compensation.
- An additional area of difficulty can arise for complex PPP/PFI deals where after a number of years of PPP operations, but well before the end of the concession, there is an opportunity to adjust or, indeed, re-negotiate elements of the underlying concession and the investment commitments thereunder. This blurs the terms of the original deal, making PSC comparisons doubly risky, and raises genuine questions concerning the true value of risk transfer.
- In such circumstances it should be recognised that the Lenders, who represent 70-80% of the funding to such concessions, will wish to have some powers of intervention in the event that the terms and conditions of the concession change such that the ability of the Project Company to meet debt service obligations might be adversely affected.
- In recent years a number of UK PPPs have been re-financed, creating "windfall" profits for the concessionaires. Such "windfall" profits have also been created on occasion by the concession being on-sold to a new investor. It is considered equitable in the UK that the public interest should share in any such "windfall" gains, and the UK authorities have introduced clauses into Project Agreements to provide for this. However, there is some feeling in the private sector that, if the public sector wishes to share in the upside, it should also share in the downside.
- There is a strong argument for the accounts of concessionaires providing public services, particularly for rail transport where revenue support may be provided, to be transparent and available for public scrutiny. That is not necessarily the case in the UK, and there is a lack of public accountability for some PPPs.

### **Risk under the PSC and risk analysis**

Comment has already been made as to the subjectivity of risk assessments. Typically, risks can be classified as:

- service availability
- construction
- accommodation decant
- demand
- inflation
- legislative
- maintenance
- occupancy
- operational
- planning
- policy

- residual value
- technology
- volume.

However, the above list is not exhaustive, and each project will have its own unique risk profile.

Not only can it be speculative to identify the cost impacts of any specific risk, but it is just as speculative to apply a probability to that risk. A useful approach in such situations is to reflect as to why the analysis is being made in the first place, e.g. to determine the optimal choice between a variety of options and the priority between those options. If a risk analysis or sensitivity testing changes the order of priority between the options, then closer examination of those circumstances is called for.

Risk allocation adds further to the conjecture. The underlying aim of project financing has always been to allocate risk to those parties best able to bear and manage that risk at a reasonable economic cost. However, on occasion the risk to be allocated to the private sector PPP/PFI partner may be extremely difficult to quantify. One therefore might question the benefit of such an allocation, as the more the PPP/PFI bidder has to speculate rather than quantify the cost of bearing such risks, the higher its prices will be. In this context, some reflection as to the principles of “partnership” can be helpful in plotting the way forward.

Finally, the government guidelines encourage competitive bidding as being the bedrock of keen PPP/PFI pricing, but at the same time they recommend disclosure of the PSC and openness with PPP/PFI bidders, except in circumstances where the number of potential bidders is very limited. There is a potential inherent conflict in adopting this strategy, as the tendency in the private sector is for non-disclosure, rather than openness, and for limiting competition so as to strengthen their position. This contrasts with some international experience where greater transparency in similar circumstances is demanded by host government tendering procedures or legislation.

## Conclusion

PSC and VFM analysis is only as good as the assumptions made and the methodology adopted. It is **NOT** an exact science. Practitioners should attempt to understand fully the issues at stake and, where doubts arise, undertake sensitivity analyses to ascertain whether the changes in a particular variable would change the underlying decision priorities. If they do, then further analysis is required on those precise data and criteria to assess the risks of a wrong decision. Complex “Monte Carlo” risk-type assessments should only be undertaken when a full understanding of the project and of the nature of the inherent variables has been obtained, and when the results of additional risk analysis will add real value to the project assessment.





## CHAPTER 5

### KEY ISSUES FOR LENDERS

by

**Julia Prescott, Senior Director, Infrastructure Finance, Bank of Scotland**

#### **Introduction**

The European market for PPP projects in the infrastructure sector is beginning to grow, with a number of the members of the European Union considering implementing such financing structures on a relatively regular basis. The speed of development of the process has not been exactly the same in each market, with significant activity being seen in Ireland, Netherlands, Spain and Italy and rather slower progress in some of the other European markets. It is clear that national interpretations of the process and of the value of PPP will play a major part in the final structure of the projects.

Whilst a number of these markets may at the present time be looking to incorporate national characteristics into their approach, “pan-European” Lenders are tending to look at the attractiveness of funding each project on the basis of a more standardised check list of qualitative and quantitative issues that they apply irrespective of the nationality of the Project. They will take into consideration whether their normal appetite for risk and return is improved or reduced through the application of the particular structure developed by the various national states. This approach may well differ from local Lenders, who may well take into account specific local issues and domestic relationships.

This chapter focuses upon the elements of a financial checklist for Lenders to PPP projects, and incorporates those questions likely to be asked by Lenders prior to their making funding available for PPP projects. The majority of the comments in this chapter relate to the reaction of providers of senior bank debt to such projects, rather than providers of capital markets products, junior debt or equity, although they will apply a similar general checklist for project selection.

The alternative to undertaking a risk analysis of this kind in respect of project selection is to rely upon credit ratings provided by a number of different agencies such as Standard & Poor’s, Moodys etc. However, the vast majority of projects are unlikely to be rated in their early stages, particularly if they are to be financed by senior bank debt rather than through the capital markets. This is thus not always a fruitful approach for senior debt providers.

Even with a checklist of this kind, not all Lenders will come up with the same answer: the market is still relatively immature, and individual views will be taken as to the robustness or otherwise of various projects. For example, a recent bank bidding competition in respect of a European PPP project resulted in a 35% spread in construction margins and a 21% spread in operating period margins, together with a 10% spread in debt service cover ratio requirements and a 13% spread in loan life cover ratios.

#### **Risk analysis checklist**

##### **Step 1: The underlying credit risk**

Analysing and understanding the underlying credit quality and the nature of the payment risk of the project is the first step. Is it structured on the basis of:

- (i) a PPP project with significant risk transfer to the private sector and payment through an annual charge made by a government or quasi-governmental entity, a structure mostly used with “social infrastructure” projects such as schools or hospitals; or
- (ii) is it a user paid, limited recourse, infrastructure project, a structure mostly used with “economic infrastructure” projects in the transport sector; or
- (iii) is a government or quasi-governmental body raising money that effectively pre-finances their infrastructure requirement, and expecting Lenders to rely on the credit quality of such borrowers for their repayment with little or no risk transfer to the private sector; or
- (iv) is it actually a corporate entity arranging funding on an off balance sheet basis?

The latter two instances are not considered below, as it is considered that in (iii) the funding does not qualify as “PPP financing” but rather as state sponsored funding, and (iv) is not a matter for this chapter. Some providers of finance may be attracted by projects that fall into category (iii), but usually returns are limited and if the Project is structured in this way, it does not usually fulfil the ‘off-balance sheet’ requirement of the Authority.

Having decided to focus on (i) and (ii), the core issue for such providers to PPP projects is to identify and clarify the risks to the private sector in respect of the service to be purchased.

## Step 2: Concerns in relation to the Project

- (a) The PPP project:

If the state is the underlying credit risk with which any Project Company undertaking borrowing is contracting, the following issues will need to be taken into account (assuming also that the Lenders consider that the political outlook in that country will be stable):

- the strength of the financial covenant of the Authority which is contracting to provide the income stream over a period of time
- whether the Authority is central government or a municipality: is the Authority rated?
- has the Authority a clear agreement with its Treasury (or equivalent) to continue to make payments over the period of the contract, or will payments need to be voted on an annual basis?
- what level of surety is there that the payments may continue to be made at the expected level: is there a chance that for any reason the government entity may not be able to make payment, apart from reasons related to poor performance, and if so is there reasonable mitigation for Lenders?
- is the security that may be taken by the Lenders over the Project Company robust in the face of state interference?
- is the regulatory regime benign in respect of the Project sector?

Lenders will also look at the following key issues:

- as part of the structure of the Project, is compensation on termination offered by the Authority in the event of default by the Project Company?
- Is “re-balancing” of the finances by the public sector a possibility as the event that the Authority’s activities significantly impact on the technical and economic conditions of the Project?
- are the Lenders allowed step-in rights in the event of the collapse of the Project Company?
- to what extent is compensation extended to Lenders in the event that the Project Company is refinanced in order to avoid financial collapse?

The responses to these questions will have a major impact on the level of pricing offered by Lenders.

Lenders will also need to be sure that the process to be undertaken is clear and straightforward, and they will therefore ask themselves the following questions:

- has the Authority promoting the Project the power to do so, and has a reasonable affordability study been undertaken?
- is the infrastructure needed in the long-term, or is the Project one that is so heavily politically motivated that, in the event of a change of government, there may be a move to cancel the Project?
- does the Authority have a team in place with adequate resources to undertake the Project?

(b) Limited recourse infrastructure projects:

These projects may be differentiated from PPP projects, in that a service may be purchased using infrastructure created by a Project Company but the Project Company will rely on direct payment by the public for such services, rather than it being made available through non-hypothecated taxation.

Most projects of this kind are in the transport sector, and they often come under the heading of PPP projects, but they have a different risk profile. It must also be said that in the transport sector, due to the magnitude of projects and the low level of potential income in relation to the capital expenditure, there is also likely to be a substantial amount of state support by way of grant.

The checklist of questions from Lenders is likely to include the following:

- is the Project economically viable in itself, or is sufficient subsidy being provided by the Authority to ensure viability?
- what is the likely level of competition for the service being provided, is it a monopoly or, in the case of a road, is there an alternative free route, if so what condition is it in, and does the Authority intend to upgrade or downgrade this alternative route?

- have future land-use scenarios presented too rosy a picture in the context of traffic growth? Are the impacts of any expected time savings appropriately calibrated? Is the scale of the expected ramp-up of traffic in respect of the Project sensible?
- what is the projected demand (as if revenue risk is involved, close consideration will need to be given to the robustness of volumes, price and price volatility in respect of the sale of the service and the impact of inflation)?
- what is the relationship between the life and capacity of the infrastructure to be created and the term of the Project, is there any element of residual risk relating to the infrastructure, and are the handover or handback provisions onerous?

### Step 3: What are the contractual arrangements?

In both types of project, funding is likely to be made available to a Project Company that will be undertaking the creation of the infrastructure that will provide the Facility. The nature of the risks remaining with the Project Company, and not shared either with Authority or with subcontractors, will be a matter of considerable concern to Lenders.

#### (i) Risk Management

Lenders will require, and will look closely at, a risk matrix which clearly delineates the nature of the risks that are expected to arise and how these are apportioned.

#### (ii) The Project Company

Lenders will then look at the Project Company and whether it is capable of carrying out the proposed contract:

- does it have within its management adequate expertise to undertake the project, both in general respects and specifically in connection with understanding any special issues relating to the particular sector?
- what risks remain with the Project Company, and what risks have been passed down through the sub-contracts?
- is the Project Company financially robust enough to deal with these risks?
- what macroeconomic risks remain with the Project Company?

#### (c) Payment mechanism

In PPP social infrastructure projects, income for the Project Company will come from payments made by the Authority against the Project Company's performance. Lenders will look closely at the payment mechanism offered in order to understand its robustness over time and will also take into account how well the performance can be provided through the application of the sub-contract arrangements. Interfaces between the parties will be the key consideration so that delivery may be ensured.

In economic infrastructure projects, the ability of the Project Company to inflate tolls or tariffs will also be of substantial interest to the Lenders.

## (d) Sub-contracts

The Project Company will typically enter into sub-contracts for construction and for the operation and maintenance/facilities management of the Facility. The nature of these sub-contracts will be important for the satisfactory completion of the Project. Lenders will look at these in the following context:

## Construction contracts:

- is the Building Contractor experienced in undertaking contracts of the kind envisaged, and does it have a reasonable balance sheet to support the level of risk it is taking?
- is it proposed that all construction risks should be passed through to the Building Contractor, or will the Project Company retain any project risks?
- are there any technical difficulties that may cause problems, e.g. are any specialised construction techniques required?
- is it a turnkey, fixed price contract?
- what is the level of liability cap offered by the Building Contractor?
- is there a letter of credit or a performance bond, or is there reliance on the corporate covenant of the Building Contractor? What is the position in relation to parent company guarantees?
- what is the level of liquidated damages?
- are there any retention payments?
- how are delay costs being covered?
- is the Building Contractor taking inflation risk over the period of construction?

## Operation and maintenance/facilities management contracts:

- is the proposed FM Contractor experienced with a good reputation in its area, and does it have a reasonable balance sheet to support the level of risk it is taking?
- does it have appropriate skills in the management of the asset, labour and other resources required?
- are all the operation and maintenance risks passed through to the FM Contractor (as it is often the case that such risks remain with the Project Company, but they need to be carefully assessed)?
- is the pricing fixed over the whole duration of the contract or is there benchmarking or market testing at appropriate intervals, and who is taking the risks of inflation?
- how are whole-life maintenance costs being dealt with, and is a life-cycle maintenance fund being held by the Project Company or by the FM Contractor?
- who takes the responsibility for non-availability of the Facility and for performance standards?

- is the FM Contractor incentivised?

#### **Step 4: Is the Project Company sufficiently financially robust to deal with the risks arising, and how can this be tested?**

Once Lenders have become comfortable with the general aspects and structure of the Project, they will then move onto the underlying financial issues.

Financial structure:

Lenders will question and test the robustness of the vehicle (i.e. the Project Company) created to undertake and fund the Project. The test will be undertaken using the financial model created for the Project. This model will assume a corporate structure incorporating levels of risk capital (this description may cover ordinary equity and subordinated debt), possibly mezzanine debt and senior debt. The level shown will ensure that there will be sufficient leeway for the Project to continue to exist even if a number of risks arise that limit the available flow of cash.

Elements of risk capital:

The provider of senior debt is likely to look at the constituent parts of the risk capital. Ordinary equity may be in “pinpoint” form, that is a nominal amount, with a substantial part of the remaining risk capital being sourced through debt subordinated to the senior debt. In certain jurisdictions this structure may be beneficial in respect of the amount of tax that the Project Company may pay.

The actual level of ordinary equity may not be significant for the senior Lenders, in that they will see any sponsors structurally below them as junior, but it is often seen as an indication of the commitment of the sponsors to the Project.

##### (i) Gearing

Risk capital will be used as a “cushion” against the potential negative outcomes of such risks arising. With a state secured annuity stream, the relationship between debt and risk capital may well start on a 90:10 ratio: this represents the “gearing” of a project. There are no hard and fast rules about the level of gearing, but the level obtained is usually that which enables a robust Project Company to be created with a sufficient financial “cushion”, whilst at the same time securing best value for money for the Authority in a competitive environment. For example, for a project that relies on user paid contributions from the public, an 80:20 debt: equity ratio may well be a more “robust” structure applicable to the risks inherent in the project.

However, from the Lenders’ viewpoint the gearing of a project is driven solely by the risk profile and allocation, not by any “tradition”.

##### (ii) Industrial Sector

Another factor that Lenders will question is the sector in which the Project is being undertaken. They will, for example, look at whether the Project is for:

- the provision of government accommodation in respect of offices or schools
- a hospital involving complex interactions with the Project Company
- a transport scheme, availability based, with issues concerning utilities diversion

- a transport scheme, user paid, incorporating usage risk
- a defence project
- an IT scheme.

Depending on the precise nature of the Project, and in ascending order of the examples given above, more equity is likely to be required in order to keep the Project financially robust.

### **Step 5: Undertaking quantitative risk analysis**

The above analysis should provide any Lenders with a clear qualitative analysis of the risk profile of the PPP project they are entering into. The Lenders will then also apply a series of quantitative tests to the financial model in order to establish whether the capital structure underlying the Project Company is both appropriate and robust.

These tests tend to revolve around ratios between the amount of cash in a project and the amount of debt service that the Project Company will be required to fund, on an annual basis, in relation to the total cash over the life of a loan and on a total project basis. Lenders will want to make sure that all such ratios are robust, even under severe downside scenarios.

In general terms there are likely to be two distinct risk profiles:

- construction period
- operation period, either the post-completion annuity stream from the Authority or the flow of income from the fare-paying public.

A financial model will be used to calculate various cover ratios on a semi-annual/annual basis. In particular, the following cover factors are calculated for Senior Debt:

#### **Annual Debt Service Cover Ratio (excluding debt reserve and cash brought forward)**

This is expressed as the ratio of:

- cash flow available for senior debt service; to
- total senior debt service.

ADSCRs take into account two subsequent periods, i.e. the ratio is calculated at the beginning of a period and includes all cash generated and debt service due over the following 12 months.

#### **Loan Life Cover Ratio (including debt reserve)**

This is expressed as the ratio of:

- the Net Present Value (at the current period's Weighted Average Cost of Debt) of cash flow during the senior debt term; and
- debt and life cycle reserve balances; to
- senior debt balances at the beginning of the period.



The cash flows contained within the financial model will be sensitised, taking into account the consequences of various risk scenarios arising, and Lenders will look at the outcomes to assess the level of potential risk contained within various project structures. The pricing and level of security required by Lenders will then be confirmed.

### **Conclusion**

This approach, and these tests, among others, will be used by Lenders all over Europe to ascertain the attractions of lending to PPP projects. If the tests are not passed in the first instance then Lenders may well look for mitigating circumstances that result either in higher changes being made or more security being sought from project participants. However, if testing the Project in this way consistently provides a negative response it is likely that it will struggle to raise funds from the private sector.

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## CHAPTER 6

### LIFE-CYCLE ISSUES

by

**Brierley Stubbs, Consultant, B2B Strategy Solutions**

#### **Introduction**

Authorities have traditionally enjoyed a high degree of involvement and control over the solutions for layout and design of facilities during the project development stage, and they have had total control over planned maintenance operations through the use of in-house maintenance team resources. Key drivers have been the need to minimise up-front capital cost against the public purse and to safeguard the functionality of both the Facility and the public service delivered through it.

The longer term costs have been set aside for future generations to manage.

Under PPP arrangements, the estimation of life-cycle replacement costs (typically around 15-20% of the total project value) carries a long term pricing risk for the Project Company. This must also be balanced against the Authority's requirements for availability and functionality of the Facility.

The Project Company's calculation of optimised value for money whole-life costs is therefore a fine balance between the cost of financing, design and construction, refurbishment and upgrades to retained estate, life-cycle replacement of components, operations and maintenance and a robust evaluation of risks.

In order to ensure innovative proposals and solutions by the Project Company to the Authority's requirements and performance specification, and that value for money over the whole life of the Facility is delivered, it is vital that the Authority limits its influence and control over the Project Company's performance to those areas where it genuinely needs to retain control.

This chapter deals with the life-cycle issues which are core to achieving optimised value for money, the risks that must be managed and the arrangements for the transfer of risk to a single "best qualified" structure.

First, it is important to understand where life-cycle costs fit within the overall project framework.

#### **What is a life-cycle fund?**

This is also sometimes referred to as the maintenance reserve account. It is a cash reserve fund set up to finance the replacement of building asset elements, components and systems which reach the end of their life cycle during the service concession period.

The calculation of this fund is based upon a breakdown of the capital cost of the Facility into elements, sub-elements and components. In the UK the universally recognised protocol for this breakdown is provided by the Building Cost Information Services, which is a construction industry standard for building cost analysis. This enables each line of the analysis to be coded.

**(a) Capital cost model**

This is based on:

- Building Cost Information Services coded breakdown summary
- elemental cost analysis (including sub-elements and components)
- schedule of elemental measured key quantities
- generic specification templates
- construction cost cashflow forecast.

**(b) Life-cycle replacement model**

For each of the cost elements in the capital cost model the following life-cycle data is calculated:

- Capital cost of replacement including:
  - supply and installation based upon the original capital cost
  - cost of access in an operational building (including protection, diversions, temporary works etc)
  - management and plant
  - penalty costs of non-availability of the Facility (where applicable).
- Scope of replacement

It may not be necessary to replace all of the elements at the same time, e.g. internal doors will require replacement at different intervals depending upon their location and use, and classroom doors will degrade faster than storeroom doors.

- Replacement frequency

Industry benchmarks are available in the UK from sources such as Building Research Establishment, trade associations, manufacturers and professional institutions. Experience from actual projects should also be taken into account.

- Cashflow forecast plotting the expenditure for each year of the Project.

**(c) Other features**

- **Net Present Value**

This is the amount of cash required in the fund at today's value which will accumulate to the required amount to fund an activity at a future date, based upon an assumed discount rate. In the UK this discount rate is fixed for the purposes of PPP project bidding.

All replacement costs are calculated at today's rates and then discounted to Net Present Value.

- **Tax allowances**

UK taxation rules provide relief against items of plant and their associated costs (construction preliminaries, overheads and profit, and fees). This is known as the capital cost of establishing an investment asset.

- **Cashflow “smoothing”**

The life-cycle cost profile generates “peaks and troughs” in cashflow which can be reduced to provide a more consistent level of annual drawdown from the fund.

### **Whole-life cost management**

A whole-life cost model is the core component of any PPP project proposal.

The life-cycle replacement schedule is only one of several components of this model, all of which are interrelated and each should not be considered in isolation to the others.

The whole-life cost of a Facility includes:

- cost of finance
- capital cost model i.e. design and construction
- life-cycle cost model
- occupancy costs
- asset facilities management costs.

The relationship between capital and life cycle has been described above.

However, for an optimised through-life model to be developed, which provides VFM within the framework of the Authority’s requirements of the Facility and its operation, the capital and life-cycle assumptions made should also consider occupancy and facilities management requirements.

**(a) Occupancy costs**

Based on the capital and life-cycle models, these are the elemental costs of inspection, decoration, rates (local taxes), insurances, rents, moves, churns and waste management.

**(b) Facilities Management costs**

- Hard FM costs of planned preventative maintenance:
  - building fabric and services
  - external and internal decoration
  - site works and ground maintenance
  - furniture fittings and equipment
  - IT and communications systems

- reactive maintenance costs.
- Soft FM costs
  - external and internal cleaning
  - catering services
  - support services
  - safety and security
  - waste management.

### **Optimising through-life costs through Project Company integration**

Optimised through-life solutions require an integrated team approach to the development of a project. Whilst achieving a solution which is within the Public Sector Comparator cost benchmark (see previous chapters) it is important that other Authority objectives (political, functional, service related, etc) are met, together with the commercial objectives of the Project Company. The commercial objectives of the sub-contractors i.e. the Building Contractor and the FM Contractor, must also be aligned.

This can be achieved through collaborative team workshops, at every stage of the bid process, attended by representatives from design, construction, key suppliers/subcontractors, life-cycle adviser and FM. These workshops will select cost significant, critical and sensitive items (operations, components, assemblies and systems where deterioration presents the greatest threats to the whole life performance of the Facility) for detailed design and implementation reviews to provide the Authority with the mechanism to model options and run various ‘what if’ scenarios.

The selection of “significant items” may be based on the following:

- items that could cause major problems and loss of availability, for example process shutdown, security, health and safety, or environmental hazard or high cost repair
- the need to limit maintenance and repair to the resources (finance or manpower) available
- experience of the deterioration of similar constructed assets in similar circumstances, for example from examination of feedback and cost in use records of existing managed assets
- sustainability implications, both in terms of impact of materials and energy consumption (linked to sustainability appraisal)
- capital cost significant elements (e.g. windows or roof).

Authority input at all stages of whole-life cost development is critical to achieve a best value optimised whole-life solution. This will also significantly improve the success of the Authority’s due diligence test of the Project Company’s proposals.

However, during the Project phase, other than accommodating the Authority’s service critical issues, the Authority’s involvement in operations and life-cycle replacements

should be kept to a minimum in order to preserve the commercial interests of the Project Company.

### **Why is whole-life cost important?**

Whole-life value management optimises the complete life cycle of a Facility, not just the cost of construction and delivery of a Facility as in traditional procurement.

The whole-life cost model is a key part of the total financial model supporting a PPP bid which calculates a “tariff” to be paid by the Authority to the Project Company in periodic instalments through the Project period.

This financial model enables the Authority’s advisers to analyse and compare each of the bids and select a Preferred Bidder. The bid will consist of proposals for:

- Project Company service charge (debt service, management and profit)
- technical and operational solutions (design, specification and concession services)
- funding package
- financial model (profit, loss and cash flow)
- heads of terms of Project Agreement.

The life-cycle fund forms a significant proportion of the whole-life cost model, and during Preferred Bidder negotiations and after financial close a number of key commercial issues should be considered.

- The Authority should avoid being too prescriptive prior to financial close and should allow the Project Company as much flexibility as possible to achieve the output specification for the Facility and concession at the lowest whole life cost.
- The life-cycle fund is charged with risk (see below), but properly managed it can present an opportunity to reduce the bid price to the Authority or to maximise profit where replacements are not necessary. Various ownership options are available, but the Authority’s advisers must be confident that each option is financially underwritten and ensures uninterrupted service throughout the concession.
- The questions of whether and when to replace an item is affected by a multitude of factors, including design and specification, occupier/user activities and maintenance regime. Failure to replace in accordance with the maintenance plan can impact upon the performance of the Facility availability requirements, which carry financial penalties for non-compliance. The Lenders and the Project Company must have complete control over the fund, under the terms of the Project Agreement, in order to manage these issues.
- The planned replacement cycles during the Project period will have been agreed prior to financial close. Any adjustments instructed by the Authority after financial close should be treated as changes or variations to the Project Agreement. However, the Project Company should have the freedom to revise these replacement cycles, provided the requirements of the Authority’s output requirements are met. The Project Company is taking the risk that replacement may be required ahead of the planned replacement cycle and so should also have

the flexibility to adjust the replacement cycles to take into account less than expected usage or other changed circumstances.

- Responsibility for implementing the annual and rolling 5-year maintenance plan will normally be with the FM Contractor. Changes to replacement cycles after financial close will generate variations to the FM Contract. The Project Company should ensure that the FM Contract provides for variations to the maintenance plan and also the “knock-on” effect upon other Hard FM and Soft FM activities.

## Life-cycle risks

### (a) Key Areas of Risk

Key areas of risk for the Project Company and its sub-contractors include:

- life expectancy and latent defects
- design and specification
- initial pricing (during bid process)
- operational price monitoring
- sub-contractor underperformance
- residual life
- technical due diligence
- occupier damage and vandalism
- environmental.

Careful attention to value management of whole-life solutions during the bid process (as described above) will minimise the impact of these areas of risk and enable the provision of adequate budget contingency within the fund. In all cases, transparency of assumptions made by the team is crucial from a due diligence point of view and so that each incumbent group understands the full and detailed extent of their areas of responsibility.

The following key points should be highlighted for each area of risk:

- **Life expectancy and latent defects.**

This risk is typically carried by the Project Company, with replacement intervals for key elements being a contractual requirement.

Durability is not an exact science, and early failures are always possible. Adequate contingency should be considered to cover this risk.

Latent defect risk is a major concern within PPP projects, particularly where refurbishment of existing estate is involved.

- **Design and specification**

To pass the test of due diligence by the Authority, all assumptions and subsequent decisions made during design team review workshops should be carefully recorded.

The life-cycle profile should be supported by an all-party agreed specification which is clearly synchronised with the FM Contractor's specific building requirements.

Construction management and quality control should be provided by the Project Company to ensure compliance with these.

- **Initial pricing**

Generally, this is recognised and mitigated or provided for through the value engineering process outlined above. However, it should be noted that there is little whole-life cost data in the public domain which can facilitate the benchmarking of through life cost prediction against achieved through life cost. There can be significant impact upon the cost model by inadequate or incorrect assumptions and/or provision for such issues as access to carry out maintenance activities or inflation, and even the relative cost of labour and materials may change.

- **Operational price monitoring**

Most projects require benchmarking of operating costs and testing of condition throughout the Project period through surveys. Any type of asset will lose value without a clear audit trail of life-cycle risk management and adequate records of through-life care, even in the short term.

The quality and frequency of surveys carried out is important. Most surveys are not suitable for PPP project purposes as they only have a 5-year forward time horizon, and for PPP projects surveys should be looking at least 10 years forward. The frequency of surveys should be annual with major reviews at 5 yearly intervals. The frequency of surveys depends on the distribution of the mean time between failures for each element, and on whether the failure is evident from the start or sudden. Surveys should check on condition as well as expected expenditure. Benchmarking with other projects is required for the benefit of both the Authority and the Project Company and Lenders.

- **Sub-contractor underperformance**

It is not uncommon for a Building Contractor to substitute materials and components for lower cost and quality components during construction. This has the effect of invalidating the life-cycle fund and contractual replacement intervals.

Similarly, the FM Contractor may replace building elements and components with new items of a lower quality and durability standard than existing installed components (not "like-for-like" as expected). This may lead to premature failure of components and non-achievement of contractual performance and replacement intervals.

The Project Company can mitigate this risk through service life performance audits at each stage of the Project from bidding through construction and operation to disposal/decommissioning.

- **Residual life**

The Facility may not have the residual life required by the Project Agreement at the end of the Project term.



This end of life assessment would be made by visual survey towards the end of the Project.

As there is no scientific basis for assessing residual life, the surveyor will be concerned about making over-optimistic judgments and it is likely to produce a conservative judgment. This may therefore lead to increased risk of end of Project replacements which were not predicted. The life-cycle fund should provide for this.

- **Technical due diligence**

The technical due diligence advisers must be confident that the Project Company and its sub-contractors can successfully manage all aspects of the life-cycle fund.

An over-ambitious plan may not pass the test of due diligence, and the Project Company's bid will be rejected (and even if the bid is successful, there will then be a built-in long-term pricing risk).

- **Occupier damage and vandalism**

Life-cycle expenditure is typically capped in relation to occupier damage during normal hours of occupation. Defining the normal hours of occupation therefore becomes crucial, especially where third party usage is planned. Vandalism risk is also a major concern for certain building types, e.g. arson in schools. Insurance can be used to manage such risk, but the risk of insurance premiums rising or of such insurance becoming unavailable is significant (see chapter 7).

- **Environmental**

Climate change and severe weather events are typically insured risks. However, following the weather catastrophes of recent years the insurance industry now requires a climate change impact assessment for every new commercial development. Where life-cycle expenditure increases may be 'predicted' due to climate change, insurance may not be available (e.g. for building on flood plains).

**(b) Responsibility for life-cycle risks**

Life-cycle risks are typically held in one of three ways:

- by the Project Company

Risks include:

- the life-cycle fund may have been artificially reduced by the Project Company prior to financial close in order to achieve a "winning bid"
- the Project Company may use the fund as a contingency for other non life-cycle purposes, e.g. as working capital
- sub-contractor non-performance may lead to disputes, but the Project Company is nevertheless exposed to performance penalties under the Project Agreement.

- by the FM Contractor

The FM Contractor will have had passed down to it responsibility for delivering integrated management, maintenance and life-cycle replacement of buildings and infrastructure assets in accordance with the Authority's output specification.

Unless this is linked to a shared incentive scheme, any benefits arising from efficient performance will not be available to the Project Company.

Risks may arise from adjustments to the quality of specification and/or construction by the Building Contractor.

- by a joint venture between the Building Contractor and the FM Contractor, so that all FM requirements (including latent defects) are dealt with under a single sub-contract.

Such an arrangement allows the vested interests of the joint venture partners to span the full range of through-life issues.

However, this can be a difficult arrangement to achieve, as the FM Contractor will be as reluctant to take on construction risk and latent defects as the Building Contractor will be to share the longer term risks associated with life cycle, operations and maintenance.

### **Managing the life-cycle fund**

A major benefit of PPP is the long term revenue generated through the concession phase. Replacement events fall broadly into three categories:

- (i) statutory replacements and inspections requiring interruption to the availability of the Facility
- (ii) planned end of life replacements requiring interruption to the availability of the Facility
- (iii) planned maintenance events where the availability of the Facility is within the management control of the Project Company.

Categories (i) and (ii) clearly affect the Authority service delivered through the Facility and will require Authority liaison and input both during the bid process up to financial close and during the Project life. These replacement events will typically be contractual requirements in the Project Agreement.

Category (iii) presents the greatest commercial opportunity for maximising returns to the Project Company and its sub-contractors. Authority involvement in this category increases the commercial risk to the Project Company and in turn will increase risk allowance and price. Where such Authority involvement is not provided for in the price but nevertheless occurs, then contractual claims against the Authority are likely to arise.

### **Lenders' Requirements**

The practical management of the life-cycle fund must satisfy the requirements of the Lenders under a number of headings:

- Forward time horizon. This is based upon a 5-year look forward exercised annually

- Forward Maintenance Plan. This is a detailed plan of works to be carried out during each year
- availability of information via the Lenders' technical adviser
- 'drawdown' from the fund and payments. Drawdown is made annually based upon details of actual life-cycle works done and their costs. Actual costs are reconciled with the maximum guaranteed income (i.e. the agreed annual budget based upon the fund), and any residue goes to the Project Company account until distribution of savings is permitted under the Loan Agreement
- savings. When these are available for distribution, they are released in accordance with a schedule of distributions, usually in subsequent project years after the savings were accrued
- provisions for distribution of savings at the end of the Project are subject to satisfactory handback of the Facility within the terms of the Project Agreement.

## **Conclusion**

This chapter has discussed some of the complexities involved in developing and managing a life-cycle fund which reflects a Facilities Management regime established to deliver against the Authority's output specification.

The life-cycle fund is the product of an integrated approach to Project development by the Project Company and its sub-contractors, in compliance with the requirements of the Authority as set out in the output specification, and in ongoing liaison with the Authority. In short, it represents the commercial position of the Project Company and its sub-contractors as set out within the Project Agreement.

The key the message is that the Authority must ensure, when transferring risk, that the Project Company is not given all the downsides. An overly prescriptive approach will prevent the Project Company from achieving a whole-life value for money life-cycle model. The Project Company must be allowed the flexibility to optimise the whole life value of the assets comprising the Facility so that best value can be provided for all parties.

## CHAPTER 7

### RISK MANAGEMENT AND INSURANCE ISSUES

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#### Introduction

The key objective of PPP is to facilitate the delivery by the private sector of high quality services to the public sector over an extended period of time at a cost that represents value for money, whilst at the same time transferring an appropriate level of risk to the private sector. Therefore, two of the main criteria which needs to be satisfied for a potentially successful PPP project are:

- appropriate transfer of risk
- value for money.

Under PPP the private sector is involved in the provision of public services and the public sector's role is changed from one of employer and provider to being the purchaser of end products for the benefit of the general public.

This essentially means that the public sector defines a standard of service to be delivered to itself (or the general public) as end user (an output specification - see Chapter 3), i.e. **what** is required, leaving the private sector to determine **how** that service is delivered. This transfers the risk of how that service is delivered to the private sector, since ordinarily the Authority will only pay for services delivered.

Therefore, by leaving the private sector to determine how a service is delivered, the public sector is able to transfer to the private sector certain risks which it would otherwise have borne. In essence, the negotiations which underline the drafting of all the relevant documentation for a PPP project are simply a means of transferring and apportioning risk.

The Project Company will undertake loans in order to procure the Project. The Project Company will depend on the payments from the public sector (for example, by way of availability payments) in order to repay these loans and seek to make a profit. The Project Company will only be able to repay such loans (and make a profit) if the asset and services are delivered to the requisite standard.

To take an example under a traditionally procured design and build contract, the Authority would fund the Project by making stage payments without the ability to determine whether the asset will perform and, thereafter, might become involved in a costly dispute if the asset failed to perform as required. Under a PPP project the Authority takes no such risk and it is the private sector which is responsible for the performance of the asset throughout the contract period (which is usually between 25 and 40 years). Therefore, the long term maintenance of capital assets and achieving overall life-cycle cost for the assets and related services are now the private sector's responsibility.

However, a balance needs to be struck between the transferring of risk and achieving value for money. This can be achieved by practical implementation of the basic principle of risk allocation, namely that risks should be borne by the party best able to mitigate and manage such risks.

## Identification of risks

At the start of a PPP project a risk matrix should be prepared by the Authority. In the UK most public sector departments have a standard risk matrix.

Identification of risk can be undertaken in many ways, both structured and ad hoc. This can be done using the outcomes from analysis of previous projects, use of 'standard' checklists, interviewing involved parties and end users, brainstorming and workshop sessions. Identification processes will involve as many or as few parties as are necessary, but the opportunity should be taken to involve parties with as wide a range of potential involvement in the Project as possible, including contractors, operating companies, funders, insurers, and technical advisors.

In all cases the objective is to produce a comprehensive list of all potential factors which could impact in any way, shape or form on the successful delivery of the Project. The output from this stage of the process is the risk matrix, which would normally be in a tabular form of risks listed and allocated.

This risk matrix will form the basic instrument for the logging and tracking of risk throughout the negotiation and drafting of the project documents, in particular the Project Agreement, the Building Contract and the FM Contract.

It is imperative that the risk matrix be maintained and regularly updated to reflect the changing circumstances associated with the Project, and that it should always form an essential element of project reviews, negotiation and drafting of project documents.

## Allocation of risks

Once the risks have been identified, the Authority can either:

- retain certain risks;
- insure against those risks (see below); or
- transfer those risks to the Project Company.

## Transfer of risks from the Authority to the Project Company

In early UK PFI projects the approach and tendency of the Authority was to try to transfer as many risks as possible to the Project Company. This approach was flawed, principally because it failed the value for money test. This is because every risk transferred has a price.

The private sector, acting prudently, will price for the risks it undertakes, whether taking on the risk itself directly or by way of insurance premium. Therefore, there will be certain risks which the Authority would be in the best position to manage and should retain in order to achieve value for money.

In order to satisfy the overall value for money test, the Authority must be able to demonstrate that the price being paid for the private sector to bear a particular risk represents value for money.

Also, the price charged by the private sector will reflect not only the probability of a risk occurring but also the consequences which may flow from such a risk materialising. For

example, if a contractor is required to pay damages for delayed completion, an excessive rate of liquidated damages will result in a higher premium being charged by the contractor for bearing that level of risk; in these circumstances it is doubtful whether that level of liquidated damages is necessary or value for money.

Furthermore, if a risk is simply too onerous, there is the danger that the Project Company could be driven into insolvency, which would not be in any party's interest.

As the UK PFI market has developed, it is now recognised by all parties that an optimum allocation of risk is required, and this is achieved by allocating each risk to the party who is best able to mitigate and manage it.

Although the correct allocation of risks can only ultimately be done on a case by case basis, with increased experience and maturity in each sector (whether it be hospitals, roads, schools, prisons, etc), market practice has increasingly provided clear guidance for the most appropriate and efficient allocation of risks. Furthermore, in the UK, further guidance is provided by publications such as the Standardisation of PFI Contracts, issued by the Office of Government Commerce.

In essence, a cost-benefit analysis must be carried out when determining the balance to be struck in the amount and type of risk that is to be imposed on the private sector, so that the main twin goals of PPP/PFI can be achieved: value for money and appropriate transfer of risk.

### **Some of the key areas of risk transfer and indicative risk allocation**

#### **(a) Design risk**

This is invariably borne by the Project Company, since the Authority is only responsible for specifying the service it requires in output terms, and the Project Company is responsible for delivering that service.

#### **(b) Completion risk**

The overriding risk is on the Project Company to deliver on time, but this is subject to various events which entitle the Project Company to an extension of time such as:

- compensation events, which entitle the Project Company to an extension of time and additional compensation, e.g. for variations by the Authority
- relief events, which entitle the Project Company to relief, e.g. from paying damages for late completion, but no compensation, e.g. for fire, explosion or flooding
- Force Majeure events.

#### **(c) Performance risk**

This risk is normally transferred entirely to the Project Company.

#### **(d) Change in law**

The Authority or the Project Company may retain this risk. This is dealt with in more detail below.

In order to illustrate the concept of optimal allocation of risk, consider the issue of change in law. Given the long-term nature of PPP projects, the limited scope for increased revenue and the limited cash reserves to satisfy additional capital costs, there is sensitivity to increased costs due to changes in law. There is also a concern in the private sector that the public sector can, in effect, change the economics of a project in the public sector's favour by changing the law. Therefore, regulatory risk is a major concern for the private sector.

In the UK PFI projects have developed such that it is generally accepted that change of law risk is now split into two categories, discriminatory and general.

A discriminatory change in law refers to changes in law that discriminate directly either against projects of the type of the Project in question or against PFI projects or project companies in general or against the Project Company in particular. The risk of discriminatory changes of law is usually borne by the public sector. It is, therefore, the public sector who must fund any variations required by any such change of law through the change procedures.

General changes in law are normally non-discriminatory changes in law and tend to be borne by the Project Company (often capped up to some prescribed amount, due to the requirements of the Lenders).

Sometimes the Project Company seeks to introduce a third category of change of law: those which result from specific areas of law of particular relevance to the Project. The public sector sometimes concedes that, if such specific changes of law occur that require capital expenditure on the Project facilities, above a threshold level, it will bear the risk. As always, the public sector is required to make a judgement as to whether this is a risk that it should be passing to the Project Company and whether it is cost effective to do so. Clearly, the answers to such questions depend very much on the particular circumstances.

### **Treatment of risk accepted by the Project Company**

Once the Project Company has assumed risks pursuant to the Project Agreement, it can in turn try to:

- retain those risks (and seek to manage them, for example by way of capping liability for such risks)
- insure against these risks (see below)
- pass down those risks to its sub-contractors (see below and chapter 10).

### **Pass down**

Because of the numerous parties with vested interests in a PPP project, one cannot look only to the allocation of risk between the Authority and the Project Company. In particular, given the contractual structure of a PPP project, the Project Company will usually be a shell company with funding provided on a non-recourse basis. For a project to be "bankable", and therefore viable, the Lenders will insist that risks accepted by the Project Company are passed down to other parties, usually its sub-contractors (principally the Building Contractor and FM Contractor) and third parties such as insurers. In short, the Lenders will insist that the Project Company retains as few risks as possible.

Therefore, it is important that the Project Company has the involvement and input of the parties to whom it will seek to pass down the risks prior to the Project Company putting in its bid for the Project, and also when the Project Company negotiates the Project Agreement with the Authority. Otherwise, it may find that risks it has accepted are only acceptable to those third parties at very high cost, or worse, simply unacceptable.

There may be certain risks which cannot be passed down to others, such as traffic risk in a DBFO road project, and the Project Company will rely on technical reports to quantify such risks and take such precautions as it can, for example by building up reserves to deal with them.

Where risks cannot be passed down to sub-contractors, insured against or managed or reasonably quantified by the Project Company, the Lenders may insist on the Project Company limiting its exposure in the Project Agreement. For example, the Lenders may require a cap on the level of capital expenditure that may be required of the Project Company due to any general changes in law.

### **Insurance**

The insurance arrangements are an important aspect of any risk allocation/risk management process. Notwithstanding this, insurance should never be used as a substitute for optimum risk allocation and effective risk management. Insurance may not exist in respect of some risks, and even where it is available it may not cover all the loss or damage arising from the occurrence of such risk.

Each of the participants in the Project can seek to mitigate the risks it has retained by insuring against those risks. For example, the Building Contractor will want to insure its liability in respect of loss or damage to the construction works during the construction period, and all participants in the Project will want to have the protection of insurance cover in respect of third party claims.

As an alternative to each participant arranging its own separate insurance policy for its part in the Project together with the associated risks it retains, in respect of a PPP project (or any large project) it is generally more cost effective for certain insurance policies to be effected and maintained by the Project Company as part of a project specific insurance package for each of the construction and operation phases of the Project. This allows two or more parties to be separately insured under a single insurance policy, for example the Authority, the Building Contractor (and its sub-contractors and suppliers), the Project Company and the Lenders can each be named on the Construction All Risks policy.

One issue of particular importance with joint names insurances is that it must be clearly stated in the policy that each party is insured for its own rights and interests (sometimes referred to as being insured as a co-insured or a named insured). This is to protect against insurers invalidating the relevant insurance policy in respect of all the insured parties where acts by one insured party (for example, non-disclosure) justify insurers avoiding the policy. If each party is separately insured under the policy and has different insurable interests, an invalidating act by one party will avoid the policy as against that insured party but will not prejudice the protection provided to other co-insureds which are not a party to the invalidating act.

### **Project specific insurances**

The Project insurance policies which must be effected and maintained by the Project Company will be specified in the Project Agreement, and the cost of such project insurances, which will be funded initially by the Lenders, will be priced as part of the payment made to Project Company by the Authority.



The type, extent and level of insurance coverage to be effected and maintained will clearly be dependent on the nature of the Project. All the policies will set out the level of the deductible and contain a list of exclusions and other limitations. These will also vary from project to project and, further, will be largely dependent on the state of the global insurance market. Accordingly, the specific exclusions and limitations on each policy need to be carefully checked. Listed below, however, are some of the more typical insurances which will form part of a project policy:

### Construction Phase

Construction All Risks	As its name suggests, CAR provides cover for “all” risks during the construction period which are not excluded under the policy. Some of the more common “standard” exclusions include damage caused by defective work and the cost of putting right the defect. Insurers will expect the Project Company to rely on its contractual rights as against the construction Building Contractor in respect of rectifying defects. It may be possible to extend the policy to include cover for the consequential damage resulting from a defect, but this will cost more.
Delay in start-up	This is designed to provide cover for consequential financial losses due to loss of revenue caused as a result of damage to the work during the construction period. This policy will only respond if the damage to the work is insured under the CAR policy, which is one of the reasons why it is so critical to check the exclusions to the various policies. The level of the deductible is also extremely important.
Third party liability	This provides cover against the risk of personal injury or property damage to third parties during the construction phase. Depending on the wording of the policy, it may also cover health and safety issues and product liability. Commonly, the exclusions will include consequential financial loss and pollution.
Professional indemnity	PI provides cover to professional advisers (for example, architects and engineers) against claims brought by the Project Company or by third parties for loss suffered as a result of professional negligence. Many PPP projects are design and build projects, and accordingly the Building Contractor will require PI cover in respect of those aspects of the Project normally undertaken by other advisers. Building Contractors undertaking such work will normally have their own PI policies in place, but in some cases it may be necessary for a project specific PI policy to be taken out because, for example, the Building Contractor’s own PI policy is on an aggregate basis or the limit on the cover is too low for the Project.
Mandatory insurances	These will vary from country to country but are likely to include employer’s liability, workers compensation and motor insurance.

## Operational Phase

Material damage	This is the “operational equivalent” of the CAR policy, in that it provides cover for all physical damage to the Project during the operational period which is not excluded under the policy. This policy will exclude damage caused by defective work.
Business interruption	This is designed to provide cover for consequential financial losses due to loss of revenue caused as a result of damage to the work during the operational period. It is the “operational equivalent” of the DSU policy and, like the DSU policy, this policy will only respond if the damage to the work is insured under the material damage policy.
Third party liability	This provides cover against the risk of personal injury or property damage to third parties once the Project has become operational.
Mandatory insurances	As with the construction period mandatory insurances, these will vary from country to country but are likely to include employer’s liability, workers compensation and motor insurance.

Latent defects insurance may sometimes also form part of the Project insurances (and in some European countries this type of cover is required by law). However, the specific risks of the participants in the Project will not generally be covered by such insurances. For example, if the Building Contractor wishes to insure its liability for delay liquidated damages, then it may effect and maintain such insurance but at its own cost and expense.

The insurance market is a global market and is affected by world events, such as, in recent years, by September 11 and other terrorist atrocities, the demise of Enron in the USA and recent flooding in Europe. As a result, the 18 months up to Spring 2003 saw a substantial hardening of the insurance market, with higher premiums, narrowing of cover, reduction in capacity and increase in retentions. This clearly affects the allocation and management of risks in PPP projects, as in some areas risks are no longer insurable or, even if insurance cover is available, it is only available at such a high cost that it is not financially sustainable for the Project.

Insurance in respect of flooding and terrorism are two good examples of areas which are regarded as high risk by the insurance market, and in respect of which fully comprehensive insurance cover is now difficult to obtain at affordable premiums. In addition, pollution/environmental risks, computer crime and “new technology” risks are all risks which have traditionally been difficult/expensive to insure and which are now even more so in the current market.

In some cases insurance may be available provided various conditions are complied with. For example, insurance may be available for a project situated within a flood plain if new flood defences are built or if existing flood defences are reinforced. The cost of such additional work will generally be regarded as a project cost.

### Unavailability/uninsurability

As a result of the hardening of the insurance market, the insolvency of some insurers, the withdrawal from the market by other insurers and the reduction of insurers’ exposure to

volatile and complex risks, unavailability of insurance has become a major factor in many PPP projects. In this context unavailability means (a) where the Project insurances are available but only at such a high cost that they are not financially sustainable for the Project, and (b) where the terms and level of cover are simply not available in the relevant insurance market.

#### **(a) Prior to Project commencement**

If it is known that insurance is unavailable prior to the commencement of the Project, then the Project participants need to assess how else to deal with these risks. For example, in respect of “new technology” risk, if insurance cover is not available the Project Company may seek indemnities (possibly with security) in respect of such new technology from the Building Contractor.

Insurance cover for damage caused by terrorism will need to be taken out as a separate policy, since most primary policies renewed or taken out after 1 January 2002 have a total terrorism exclusion for property damage and business interruption.

Some European countries have introduced mechanisms to deal with these problems.

In the UK the Government led the insurance industry in setting up Pool Reinsurance Company Limited (or Pool Re, as it is known) in 1993. Pool Re is a mutual insurance company which provides reinsurance coverage to the commercial property insurance market in the UK. It reinsures its liabilities with the UK Government, which acts as reinsurer of last resort. Until 1 January 2003 each primary insurer was responsible for the first £100,000 under each section of the policy, with Pool Re covering the excess up to the limit of primary coverage. However, the level of retention of the primary insurers has now increased substantially and will continue to do so over the next four years. As a consequence of this, the primary insurers, who used to charge premiums based on Pool Re’s rate manual, are now free to set premiums according to “normal commercial arrangements”, with the result that such premiums may now become “unavailable”.

In France there also exists a pool, created jointly by insurers, reinsurers and companies authorised to carry on direct insurance business on French territory, to cover terrorist acts in France (Gestion de l’Assurance et de la Réassurance des Risques Attentats et Actes de Terrorisme, or GAREAT as it is known). This also has the advantage that the French State is insurer of last resort for claims in excess of €1.5 billion.

In Germany a specialist insurer, Extremus Insurance AG, has very recently been set up to close the insurance gap resulting from coverage restrictions in the international insurance and reinsurance markets in respect of protection against loss and damage caused by terrorist acts.

In Spain the Consorcio de Compensación de Seguros operates a compensation fund, which is distinct from the State and which is used to indemnify losses caused by extraordinary events in Spain, including terrorism.

The overall objective of all these arrangements is to ensure the continued availability of insurance or other financial cover for loss and damage which might be caused by terrorist actions. However, it is clear that in the current market, where it is available, premiums for this type of cover are high, and in some countries this protection may not even be available.

## (b) During the Project term

The risk of unavailability is of even more concern if it occurs during the term of the Project. This raises several issues:

- who will pay for the increased costs of the Project insurances, and should there be a cap on this amount?
- who is liable for any uninsured loss or damage?
- should either party be allowed to terminate the Project Agreement where any of the Project insurances becomes unavailable?

These are difficult and complex issues which will need to be resolved prior to signature of the Project Agreement.

From the Project Company's perspective, the risk of any of the Project insurances becoming unavailable is not a risk which it will be willing to retain, because it cannot manage the risk and would have difficulty pricing for it.

The Project Company would also have to price for the consequences which may flow from such a risk materialising, insofar as it can do so.

For example, the Project Company will be concerned that there will be a breach by it of the Project Agreement if it fails to effect and maintain the specified Project insurances. Even if the Authority waives the insurance requirements of the Project Agreement, it is unlikely that the Lenders will waive the insurance requirements of the financing documents. Assuming, however, that both the Authority and the Lenders are prepared to waive these requirements, the Project Company will still remain liable for any uninsured damage which may arise.

The Project Company will usually be a shell company, with lending provided on a non-recourse basis, and for the Project to be bankable the Lenders will insist that the Project Company retains as few risks as possible. The Lenders are unlikely to allow the Project Company to accept a risk which was previously insured against, but which becomes uninsured through no fault of the Project Company, to remain with the Project Company, as this may result in the Project Company facing an uncapped liability for any such uninsured damage. This may also ultimately result in the insolvency of the Project Company.

It is also difficult to see how this would satisfy the overall value for money test.

The other options are for the Project Company to have a right to terminate the Project Agreement in these circumstances, or for the Authority to take on the role of insurer, or reinsurer, of last resort. This is not a role that most Authorities would want to take on, but the Authority will need to assess which option will provide the optimum risk allocation and satisfy the value for money test. A further possibility is for the parties to agree a risk sharing mechanism in respect of any increases (or savings) in the cost of the Project insurances. For the reasons outlined above, the Lenders will almost certainly require the Project Company's "share" of any such risk to be capped at a prescribed amount.

Clearly if the Project Company is responsible for the Project insurances becoming unavailable (for example, where the insurance is no longer available at a commercial premium because of the poor claims record of the Project Company), then the risk should remain with the Project Company. What constitutes a “commercial premium” in the circumstances of the particular Project is likely to be a difficult issue, and one which will certainly be the subject of discussion between the parties.

## CHAPTER 8

### CHANGE AND MANAGEMENT OF CHANGE

by

Jon Hart, Masons

#### Introduction

Change and the management of change is one of the most complex issues for PPP projects.

The principal reason for this is the length of projects. Many PPP projects are for very long periods of time. In the UK, for example, contracts can sometimes last for as long as sixty years.

Parties need to consider the different kinds of changes that could arise and affect the Project during this period and agree upon a method of dealing with them.

#### Reasons for Change

Changes may arise for many different reasons:

- **Instructions or proposals by the parties**

The Authority may decide that it needs to change certain aspects of the Project. Alternatively, the Project Company may identify an innovative solution which requires a change to the Authority's functional specification for the Project.

- **Changes in technology**

In many cases, the Authority's output specification will require the Project Company to implement new technology as it becomes available during the lifetime of the Project. Even though this is a particular feature of IT PPP projects where the rate of change in software and hardware solutions is very fast, all projects are likely to be affected in some way. How could parties to a contract twenty years ago have predicted the growth of the internet or email or changes in telecommunications?

- **Changes in price**

How will inflation be dealt with? What about fluctuations in unit costs?

- **Benchmarking and market testing**

Will the Authority be able to require the Project Company to re-evaluate the cost of providing services by reference to prevailing market conditions?

- **Changes in law**

Legislative changes may have a major impact on projects. For example, the Project Company may find itself subject to new laws affecting environmental issues or employment issues. It is also possible that political changes might bring to power a government that introduces legislation that is specifically directed at prohibiting PPP type approaches.

- **Other political/extraneous changes**

Recent examples include the “Y2K” fears concerning IT or the introduction of the Euro currency.

### **The impact of change on a project**

Changes can have many different effects upon a project. A change in technology could affect the scope of work in designing and engineering the works. Alternatively, it might alter the services to be provided. Re-engineering an aspect of the Project may have a serious impact upon the Project programme. Changes in the cost of living prices may affect profitability. A change in law may make the Project impossible or illegal to perform. Equally serious may be a change in law that dramatically affects the profitability of the Project. The timing of changes is also important. A change early in the build phase may be less serious than one arising late in the programme, or even after the works have been completed. The challenge for the parties is to consider how these types of issues will best be addressed.

### **How can change be dealt with?**

#### **a) Instructions or proposals by the parties**

Both PPP projects and more traditional contracts contain procedures for changing the scope of work or services and mechanisms for the payment consequences of scope changes.

However, PPP differ from more traditional procurement methods in that limits are sometimes placed upon an Authority’s ability to instruct scope changes. This is because such changes could have a major impact upon the construction programme, financial modelling and debt-financing for a PPP project. As a result of this, the Project Company (and its Lenders) may decide to impose limits on the number of changes that the Authority may introduce and the financial value and/or the timing of such changes.

In most cases the Authority will have to seek the agreement of the Lenders before a scope change is agreed. The Project Company will also be under significant controls from the Lenders in respect of raising its own change proposals.

It is essential that PPP projects contain detailed procedures to deal with all the consequences of changes, including:

- how capital costs will be dealt with
- identification and treatment of operating costs
- treatment of design development and research costs
- impacts upon performance monitoring of the Project Company
- time periods for implementing changes
- obligations upon the Project Company to seek funding for the proposed changes and default provisions where this is not possible (this is considered further on).

## b) Changes in technology

As we have already seen in chapter 2, it is essential that the Project Company is satisfied as to the functional specification in which the technical requirements for the Project are set out. Most important of all, the Authority must be satisfied with the overall form and content of the functional specification at the start of the tender process. The introduction of changes to the tender requirements after the commencement of the process, but before appointment of the Project Company, could have serious effects and could even require the tender process to be recommenced.

The functional specification needs flexibility in the way output requirements are set out to enable the Project Company to take advantage of new and innovative solutions. These may include the opportunity to implement new technology. However, there must also be careful consideration how the Project Company demonstrates that such new technology is going to be reliable, especially over the lifetime of the Project. Conversely, the Authority will need to be satisfied that the functional specification does not leave the Project using outmoded and expensive technology.

## Changes in price

PPP projects are similar to traditional procurement projects in that they will often have detailed requirements as to how pricing changes should be dealt with. However, PPP projects will often require far more complex mechanisms than traditional projects. For example:

- **Procedures for valuing work**

It is important to make sure that the Project Agreement contains an appropriate framework for identifying different types of costs (design costs, operating costs and capital costs).

- **Funding arrangements**

PPP projects need to deal with the way in which changes are to be funded. On some projects it will be envisaged that at least a certain specified amount of change may occur during the development phase. For this reason the Project Company may be required to secure additional loans to cover such possible change. Under this kind of arrangement the Project Company will be required to secure funding up to that specified limit. For changes occurring over the specified limit, the Project Company will either be responsible for securing alternative funding (in respect of which the Authority will have to pay the Project Company's costs) or, to the extent that the change is not mandatory, the change will have to be withdrawn, or else the Project will be terminated. Funding arrangements for changes can often be the subject of detailed negotiations and will involve careful consideration of the financial planning for the Project.

- **Dealing with inflation**

On long term projects careful consideration may need to be given to the appropriate retail price indices to be used.

- **Performance monitoring**

Changes can have a major effect upon the services being provided on a project, the way in which these services are monitored and how these services are paid for. Again, the Project Agreement needs to take such issues into account when



considering procedures for dealing with change. For example, the Project Agreement should deal with the adjustments that should be made to the performance monitoring system, whether changes should be made to services that are being measured and the targets that the Project Company should achieve.

- **Financial model**

Many PPP projects will utilise a financial model. If changes occur, this model will need to be adjusted. On some projects the methodology for doing this can be very complex and difficult to understand. Changes to the financial model should therefore be made as transparent as possible.

### **Benchmarking and market testing**

Benchmarking and market testing are becoming increasingly common features of PPP projects. In some countries Authorities intending to use PPP methods of procurement are under a statutory obligation to do such testing so as to demonstrate (for example to statutory auditors) that “value for money” is being achieved on the Project.

In simple terms, at various agreed stages of the operating phase of the Project the Authority may ask the Project Company to re-evaluate the cost of operating and maintaining the Facility that has been designed and constructed. Such re-evaluation will be more appropriate on long term projects than short term projects. Benchmarking requires notional consideration of what the provision of services may cost by looking at which services are generally available in the market place. Market testing by contrast can require the Project Company to undergo a fairly rigorous competitive re-tendering exercise, by actually seeking competing offers from the market for the provision of services being provided by the Project Company.

Benchmarking and market testing will be more appropriate to more general Soft Services like cleaning and low-skill maintenance rather than more complex Hard Services such as specific maintenance.

If the evaluation (or re-tendering exercise) proves that the price of the services being charged by the Project Company is higher than prevailing market rates, the Authority should be entitled to reduce the price being paid for such services, or even to replace the Project Company. If however the costs are lower, then the Project Company should be entitled to an increase in payment.

The parties to a PPP project using benchmarking or market testing need to be clear in deciding which services are to be benchmarked or market tested, when and how this will take place and what the consequences of this will be.

### **Changes in law**

Any long term project will need to deal with legislative changes.

In many circumstances a change in law could give rise to a change in the technology to be used on a particular project. For example, new environmental legislation could require new treatment processes on a water project or new noise reduction measures on a road or rail project. In the UK market place there is now a relatively well-established approach to the allocation of risk in relation to change in law and how these are dealt with in the different sectors.

In nearly all PPP projects, the Project Company's primary obligation will be to comply with all relevant legislation in effect at the commencement date of the Project Agreement. On some projects this may be extended to make the Project Company responsible for legislation introduced subsequent to the commencement date. The opposite is sometimes the case as well, where parties have quite deliberately identified new or prospective pieces of legislation which were excluded at the time the Project was priced.

A key objective is for the parties to be clear as to the allocation of risk between them. In this way change in law should be no different to any other feature of the Project. The parties will need to consider at the start of negotiations how risks resulting from change in law during the lifetime of the Project are to be shared. In practical terms risk sharing will normally focus specifically upon how the cost consequences of the change in law will be dealt with.

Take, for example, a water treatment project. Both parties are aware that the statutory regulator is considering changes to its requirements in respect of one of the types of technology being proposed by the Project Company. It may therefore be necessary, so as to avoid uncertainty, to include a provision in the Project Agreement as to how the parties will share the costs of changing technology if the regulatory body refuses the Project Company's preferred choice of technology. For example, the parties may agree that the Project Company should be responsible for the capital costs of implementing the change in technology required by the regulatory body up to a specified figure and then responsible only for a percentage of the costs over that figure. It is also common to find that the Project Company's liability is capped at a total amount.

### **Terminology used to describe changes in law**

A wide range of terminology is often used to describe a change in law. It is important to understand what each different term means and the circumstances in which each should be used:

- **Specific changes in law**

Specific changes in law are dealt with differently in different sectors. For example, in the prison sector Project Agreements may provide that the Project Company will be compensated for increased costs arising from changes in health and safety legislation that have a specific impact on the Project. By contrast, in the health sector the Project Company often bears the increased operating costs arising from specific changes in law, for example legislation requiring an increase in staffing levels. However, increased capital costs resulting from legislative changes, for example requiring improvements to be made to equipment, tend to be shared with the Authority on a pre-determined basis.

- **General changes in law**

In general it is unusual in the UK for the Project Company to be compensated for general changes in law. Normally, the Project Company itself must bear such risks. However, in the prisons sector it is possible for the Project Company to receive compensation if there is a significant change to its underlying costs resulting from changes in law which are not specific to the prisons sector, for example changes in employment legislation.

- **Discriminatory changes in law**

Most PPP projects, particularly in the roads sector, provide that the Project Company will be compensated for any legislation introduced that specifically discriminates either against it, or against the type of project in question.

- **Changes in tax law**

In UK PPP projects the Project Company normally bears the risk of changes in tax law, particularly in relation to VAT.

### **Important questions to be asked**

- **Identify the different types of changes**

How much will the parties want to change the output specification? What changes in law need to be addressed? Will there be benchmarking? Will the Project Company need to obtain additional sources of funding?

- **Identify the potential consequences changes may have**

What kind of price consequences will there be? Will there need to be changes to the performance monitoring system?

- **Agree the procedures**

What timescale is relevant? What limits are there on the Authority's right to instruct changes? Will there be risk-sharing for changes in law, and if so on what basis?

### **Conclusion**

The key message is: don't underestimate the significance of changes.

## CHAPTER 9

### EMPLOYMENT AND PENSIONS

by

**Peter Talibart and Peter Ford, Norton Rose**

#### **Introduction**

Employment and pension issues can play a significant role in PPP projects involving the transfer of employees from the public sector to the private sector. These issues can be complex and politically sensitive.

In a general employment context the Project Company's desire to introduce efficiencies and to restructure the workforce must be balanced against the need to take into account both the interests of transferring employees and the views of labour unions, works councils and other employee representative bodies. These interests are reflected in national and European legislative requirements which introduce protections for employees in transactions of this nature.

In addition to these general employment considerations, pensions and retirement benefit provisions can also raise important issues. These issues are not limited to the mechanics of transferring pensions assets and liabilities. Additionally, the transfer of pension funds to the private sector can assist in establishing a pool of long-term capital, capable of being invested in the funding of public/private sector projects. In a wider political and economic sense this can also help address the problem faced today by governments in countries with an ageing population which, without adequate private sector pension provision, will become more and more reliant on the state for support in retirement. This last issue is of particular significance in countries where state/public sector pension benefits are funded on a "pay-as-you-go" basis from direct taxation. As the working population grows smaller in comparison to the retired population, the levels of taxation needed to fund retirement benefits will grow to a level which is likely to be unmanageable. Transferring employees to funded private sector pension arrangements may have short-term exchequer consequences but ultimately will help alleviate a mid to long-term concern which is growing in significance.

#### **Employment issues**

##### **Redundancy/reduction in workforce**

Often one of the driving commercial forces behind a privatisation or PPP project is the need to rationalise the workforce. The prospect of such rationalisation can lead to very public opposition to PPP projects at an early stage. In most jurisdictions there are mandatory laws requiring consultation with employees, trades unions or works councils, and penalties if dismissals are not conducted in a proper manner. Collective agreements, legislation or the applicable social plan may dictate the numbers and manner in which dismissals may occur and also the level of compensation payable to employees whose employment is terminated. It is very important that such costs are factored into the transaction and that a commercial decision is taken as to who bears the costs and/or litigation risks of such dismissals.

##### **Transfer of employment rights**

Countries in the European Union have adopted the principles set out in the Acquired Rights Directive into their domestic law. Pursuant to this Directive, and normally also

under local law, the rights, liabilities and duties arising from contracts of employment of staff who are engaged in the business or undertaking which is being transferred to the private sector will automatically pass from the Authority to the Project Company. It is often the case that there is then a further transfer from the Project Company to the FM Contractor or to another entity that agrees to employ the individuals required for Hard and Soft FM Services. In these circumstances there will be a further transfer of employment rights, liabilities and duties to the facilities management company pursuant to the Acquired Rights Directive.

EU countries also provide for mandatory consultation and provision of information to employee representatives, trade unions and works councils in connection with such transfers. The transaction team must therefore consider consultation pursuant to local law at the appropriate stage in the negotiations. In jurisdictions where failure to consult adequately can nullify the transaction as a matter of law, or lead to substantial financial penalties, careful attention must be given to this issue.

### **Transferring the correct number of employees**

It is not always possible to identify accurately the names and job titles of employees who will transfer to the Project Company pursuant to the Acquired Rights Directive or domestic legislation. This point is best illustrated by a situation involving privatisation of part of a formerly state-run entity. In such a case employees may have worked 50% of their time in the parts of the business to be privatised and 50% in the part that remains operated by the state. Accordingly, attention must be focused on:

- ensuring that sufficient employees transfer across to the Project Company in order that it has sufficient manpower to carry out the functions assigned to it
- ensuring that no employee, who is not properly assigned to the undertaking to be transferred, transfers across to the Project Company.

Difficulties may arise where, for example, private companies expect to “inherit” 50 employees and, in fact, they inherit 200. The project documentation must cater for this risk.

The situation is further complicated where the Authority has already used private sector companies to provide some or all of the services to be transferred. In such a case there is a risk that those employees will also be caught by the transfer legislation and will also transfer across, with their full contractual and statutory rights intact, to the Project Company. Proper due diligence must be carried out in order to ensure that the correct number of employees transfer across. Further, the Project documentation must allow for the possibility of there being additional employees who are not required by the Project Company.

When employees transfer from several different employers, it is likely that their terms and conditions of employment will have to be equalised at some point in the future. This may also create legal risks that need to be provided for in the transfer arrangements and project documentation.

### **Migration issues**

It is possible that the Project will not be implemented by a single transfer of employees but by a series of such transfers. Similar issues to those raised above arise regarding numbers of employees and ensuring only those employees who are properly assigned to

that undertaking transfer. It may be the case that employees have to be specifically assigned to an undertaking in order to ensure that transfers occur in the desired fashion.

### **Key employees**

Often it is important to ensure that particular individuals will transfer across to the Project Company, rather than stay in the employment of the Authority. Difficulties arise where individuals are reluctant to transfer from the public to the private sector. On occasion, where employees are determined not to transfer, arrangements have been entered into for the temporary secondment or loan of the relevant employees to the FM Contractor for a defined period in order to train appropriate successors or to ensure an orderly transfer of required knowledge.

### **Specific employment clauses**

There is often uncertainty in relation to employment issues, such as the number of employees employed in an undertaking or the extent of the potential liability that will transfer to a Project Company. Appropriate clauses need to be incorporated into the Project Agreement to deal with these issues. These normally include warranties by the Authority as to the employees (if any) which will be transferred and indemnities to the Project Company as to unexpected liabilities arising from the relevant transfer of employment legislation, and sometimes also in respect of future redundancy costs. The Project Agreement will normally also deal with such liabilities at the end of the term, when (if similar legislation is still in force) the employees then engaged in the business will transfer back to the Authority.

Political and trade union concerns in the UK with regard to this aspect of PPP projects, in particular regarding the “two-tier workforce” which is said to be created if the Project Company employs new staff on less favourable terms than for its employees transferred from the public sector, have resulted in a revised model being adopted for recent hospital PFI projects. Known as the Retention of Employment model, this provides for the relevant employees to remain in the public sector but to be managed by the Project Company, which is also required to employ future staff on similar terms and conditions. However, as well as limiting the ability of the Project Company to introduce the increased efficiencies which are a key point of the rationale for PPP projects, this model also raises a number of practical problems, such as the ability of the Project Company to discipline, and ultimately dismiss, underperforming employees. It remains to be seen how the Retention of Employment model will work in practice and whether this will prove to be an acceptable template for other sectors in the UK.

### **Pension issues**

#### **Transfer of pension rights**

As indicated above, in almost every instance PPP projects will involve a transfer of employees from the public to the private sector which falls within the ambit of the Acquired Rights Directive. One exception to the contractual rights, liabilities and duties which transfer to the Project Company under the Directive is the contractual right to pension and retirement benefits. However, while the Directive does not oblige EU member states to introduce national legislation which requires such a transfer to include contractual pension rights, in most European jurisdictions pension rights will transfer to the Project Company. Typically this will involve the transfer of the employee’s right to accrue pension benefits in respect of his/her employment/service after the transfer and an option to transfer the value of his/her accrued benefits to an arrangement of his new employer. The costs of providing these benefits can be significant, and the Project

Company will seek to ensure that they are properly assessed and properly reflected in any charging arrangements.

In broad terms the key issues for the Project Company will be:

- understanding properly the nature of the pension liabilities being transferred, in respect of both past service rights and future accrual of benefits
- ensuring that, where accrued benefits/liabilities are to be transferred, sufficient assets are also transferred to enable the Project Company to be satisfied that he has no past-service funding liabilities: ordinarily this will involve actuarial advice
- ensuring that any ongoing service charge arrangements are subject to reviews and “benchmarking” arrangements which can accommodate future changes in pension costs
- obtaining adequate indemnity protection against claims from employees in respect of pension rights earned prior to any transfer to the Project Company, to the extent that any such claims are not reflected in the assets transferred
- ensuring that adequate provision is made for the onward transfer of pension rights at the end of the term.

The key issues for the Authority will include:

- the need to protect accrued pension rights of transferring employees
- the need to ensure adequate ongoing pension accrual
- ensuring, so far as possible, the transfer of pension cost/risk to the Project Company
- the short-term exchequer costs involved in any transfer of assets to the pension scheme where historically accrued pension benefits have not been separately or fully funded
- ensuring full consultation with trade unions, works councils or other employee representative bodies, and adequate input into any employee communications.

### **Funding issues**

One of the most difficult issues for the Authority when dealing with the pensions aspects of PPP projects is the need to reconcile the desire, on the one hand, to protect employees’ ongoing pension rights, for example by obliging the Project Company to provide a minimum level of retirement benefit, and at the same time to avoid potentially significant short-term costs in providing funding for accrued past-service benefits. Inevitably, the Project Company will seek to resist having stringent and costly benefit obligations imposed upon it, particularly where it receives inadequate assets to fund these. Where the employees concerned have accrued past-service benefits in a scheme which is fully funded or insured this will be less of an issue, as the assets representing accrued benefits can be transferred to the Project Company’s pension arrangement (assuming, of course, that it is agreed between the parties that they fairly represent the value of the liabilities to be transferred). Where past-service benefits are not funded, or are inadequately funded, issues will arise concerning who is responsible for making good the past service funding shortfall. In such circumstances one or more of the following consequences will occur:

- the Project Company will need to make good the shortfall either by way of an immediate payment into the pension arrangement or by increasing its long-term level of contribution to such arrangement
- the Authority will need to make good any shortfall by way of a payment out of its own exchequer resources
- employees will have their benefits reduced.

While this may raise short-term funding issues for the Authority, these should be balanced against the longer-term benefits of transferring pension costs to the private sector. While clearly the Project Company will not wish to accept insufficiently funded past service pension liabilities, it might be possible to transfer employees in respect of the future accrual of benefits only, and for the liability to provide pension benefits in respect of past-service to remain with the Authority. This has the advantage of “capping” the Authority’s exposure, while at the same time transferring the risk for future benefits to the Project Company without reducing employees’ entitlements.

### **Future service pension rights**

Whether or not past-service benefits are to be transferred, the Authority will usually wish to introduce a mechanism for ensuring that future-service benefits continue to accrue on a basis which is not less than that offered by the Authority. Ordinarily, this will involve some form of certification of the Project Company’s pension arrangement to ensure that it provides a minimum level of benefits.

The Authority will also wish to ensure that employees’ pension rights are properly dealt with at the end of the term. Usually, it will be necessary to incorporate a mechanism for the transfer of pension rights to any successor Project Company or back to the Authority. The Authority will wish to ensure that sufficient assets are transferred to this successor so that accrued pension liabilities remain fully funded. At the very least, it will wish to ensure that the method for calculating this further transfer of assets will be based upon the same or consistent actuarial assumptions to those used to calculate the original transfer from the Authority’s own pension arrangement.

### **Pensions due diligence issues**

In terms of understanding the pension liabilities being transferred, the Project Company will clearly wish to undertake a thorough due diligence exercise. Such an exercise will involve legal, actuarial and audit input. However, obtaining complete certainty with regard to the past-service pension rights to be transferred to the Project Company’s pension scheme will often be difficult. Ordinarily, such a transfer will only occur with the consent of each individual employee.

While most, if not all, employees will elect to join the Project Company’s pension arrangement for the purpose of accruing pension benefits in respect of future service/employment, it is by no means certain that every employee will wish to transfer his/her accrued benefits. For pension schemes which provide benefits linked to earnings, there may be an advantage for the individual if he agrees to transfer his past benefits: by doing so past-service benefits will be likely to increase in accordance with future levels of earnings growth. However, for individuals nearing retirement age such a consideration is likely to be outweighed by the perceived additional security of remaining in a public sector pension scheme. This is more likely to be the case where the public sector pension scheme offers increases to accrued benefits even when an employee has left its employment, in order to protect against the effects of inflation.



While issues of this type will have less significance for a Project Company so long as it is satisfied that sufficient assets will be transferred to match the cost of transferring past-service liabilities/benefits, in many jurisdictions this is not always the case. Inevitably the Project Company will wish to ensure that this transfer of assets is calculated by reference to reasonable “actuarial assumptions” which take into account likely future salary escalation, inflation and interest rates. Even where reasonable actuarial assumptions are adopted, the Project Company will still be subject to the risk that these prove an inaccurate assessment of the cost of providing past-service benefits.

One specific issue which the Project Company will wish to consider will be the pension cost of any redundancies made after employees have transferred. The recent European Court of Justice decision in the *Katia Beckmann v Whichloe Macfarlane Ltd* (case number C-164/00) has ruled that, in many cases, contractual rights to enhance pension benefits upon redundancy must transfer under the Acquired Rights Directive as they are categorised as redundancy/employment benefits rather than pension benefits. Where possible, therefore, the Project Company will wish to ensure that any identifiable additional pension costs on redundancy are reflected in the pension transfer payment. Typically, additional pension costs are incurred in these circumstances where enhanced early-retirement benefits are given to employees made redundant over the age of 50 (indeed, where younger employees are made redundant there may be a financial benefit to the Project Company in pension cost terms). It should also be noted that early-retirement terms may pose an issue irrespective of redundancy, as in many EU jurisdictions such benefits are not fully funded. Where, as will often be the case, it is not possible to identify these pension/redundancy costs at the time the Project Agreement is signed, the Project Company may seek indemnity protection to cover, at least, that part of the additional cost attributable to service prior to the transaction.

The fundamental issue of ensuring that all accrued pensions liabilities which transfer to the Project Company are appropriately and fully funded applies equally to insured past-service benefits, where the Project Company may wish to have the benefit of any insurance policy assigned to it. This may again pose difficulties where the Authority self-insures benefits, particularly where obtaining similar levels of insurance cover in the market may prove expensive. To protect against this, the Project Company may wish to undertake quite thorough due diligence, for example to identify any employees who have a serious illness or disability and for whom life assurance cover may be especially expensive.

In addition to ensuring that sufficient funding is received in respect of inherited past-service pension liabilities, the Project Company will wish to have as clear an idea as possible of its ongoing future pension costs. These costs will need to be included in the financial model. Substantial pension cost escalation can have a significant impact on the Project Company’s profitability and cash-flow, and hence its ability to service debt. This may be addressed at the outset by using conservative actuarial assumptions in calculating any past-service transfer of assets. This will have the effect of increasing the transfer payment and, in effect, incorporating a “risk premium” into the pensions transfer. However, such a mechanism can be very uncertain, in that ultimately the sum to be transferred in respect of past pension benefits, and therefore the amount of any “risk premium”, will depend upon the number of employees who elect to transfer their accrued benefits. If none of the employees decided to transfer, there would be no transfer payment and the “risk premium” would be zero. From the Project Company’s viewpoint, a preferable way forward would be to incorporate regular service charge/benchmarking reviews capable of reflecting increased pension costs or, where possible, and bearing in mind local employment law constraints and industrial relation issues, to allow the contractor the flexibility to amend or re-negotiate the ongoing pensions promise.

In addition to understanding the pension rights of transferring employees, ensuring that adequate past-service funding is transferred and ensuring that it is able to control future pension costs, the Project Company will also seek protection against historic pension claims. This may relate to simple administrative issues or may extend to potentially larger claims concerning, for example, sex-equality (following the European Court of Justice's decision in Barber v GRE and related cases). Such protections, together with the methodology for calculating any transfer of assets, obligations with regard to the level of benefits to be provided in respect of past and future service and, often most crucially, the method of communicating with employees, will all need to be fully set out in the Project Agreement.

## **Conclusion**

Whether the Authority entering into the PPP project is a national government or any other public authority, the issues which it will need to confront in relation to the employment and pensions aspects of the transaction are as likely to be political as they are to be legal or financial. As a consequence, it will always be necessary for it to balance the need to be seen to be protecting the rights of its employees against both prudent financial management and the need to understand the wider commercial interests of the Project Company. From the Project Company's viewpoint, its ability to manage employment and pension issues in a manner which enables it both to introduce efficiencies and to control its risk and potential financial exposure is likely to be a key element of the transaction. For success to be achieved, each party must have an awareness of the issues facing the other in this area.



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## CHAPTER 10

### SUB-CONTRACTS

by

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#### Introduction

Previous chapters describe how the Authority and Project Company will enter into a Project Agreement for a PPP project under which the Project Company must carry out certain works and provide certain services. This chapter deals with the sub-contracts which the Project Company then enters into to procure these works and services.

The Authority will, of course, want the Project to succeed and so will want to ensure that the Project Company enters into sub-contracts on good terms with appropriate sub-contractors. However, the Authority can obtain the comfort which it needs, and also avoid unnecessary costs, for itself and for others, if it limits its enquiries to the key issues which it needs to know about (when it needs to know about them) and leaves others to deal with the issues which are of most importance to them.

Accordingly, at the bid stage, if the Authority asks for only outline details of the Project Company's contractual arrangements or for heads of terms for these sub-contracts, rather than requiring bidders to include entire sub-contracts in their bid packages, the Authority can obtain all the information it needs while avoiding the wasted costs for unsuccessful tenders of preparing full draft sub-contracts and its own wasted costs of reviewing them. Indeed, it may not be possible for tenderers to produce anything more than indicative draft sub-contracts anyway, since these sub-contracts will need to reflect the Project Agreement and so cannot be finalised until the Project Agreement is agreed.

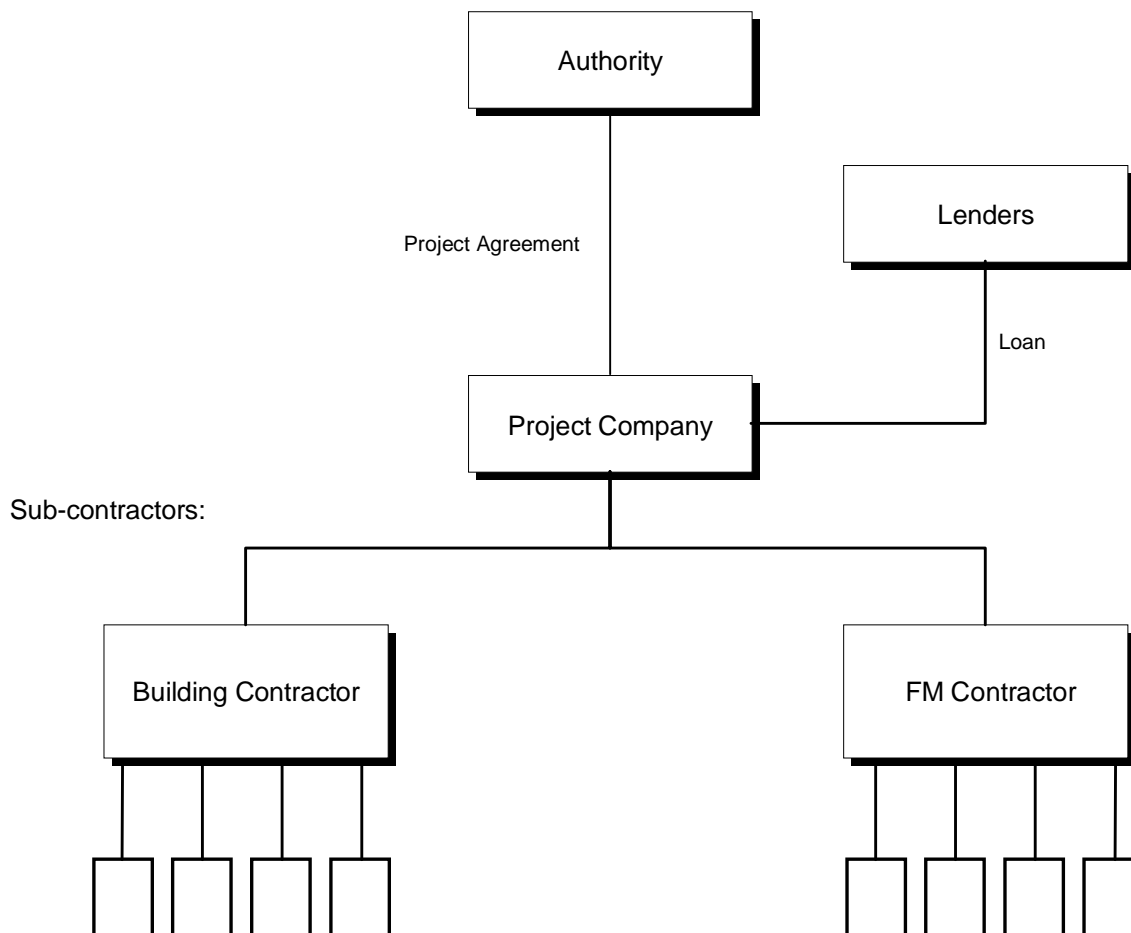
The Authority can also take comfort from the fact that, when it selects a bidder and the sub-contracts are actually drafted, there will be other parties who have a more immediate concern to ensure that this is done well. In particular, the Financiers of the Project (whether the Lenders or equity investors) will have a direct interest in these documents and will, therefore, conduct a detailed due diligence review to ensure that they are in an appropriate form and are with appropriate sub-contractors. The Authority can therefore focus its own enquiries on the areas of primary importance to it.

The Authority should also remember that its primary concern is to ensure that the Project Agreement contains the provisions and protections which the Authority needs; checking the terms of the sub-contracts is to a great extent a secondary exercise. Accordingly, if the Authority has particular requirements, these must appear in the Project Agreement. Although the Authority will wish to ensure that these special requirements are reflected in the sub-contracts which the Project Company enters into, the Authority must also recognise that it is a key element of the PPP project structure that it should be up to the Project Company to choose the form which the sub-contracts take and the sub-contractors which it engages; it is the Project Company's business how it makes these arrangements most effectively and, ultimately, the Project Company's problem if these arrangements fail.

Similarly, the Authority should give careful consideration to how far down the sub-contract chain it looks. If the Authority is satisfied with the Project Agreement and has checked the relevant parts of the sub-contracts entered into by the Project Company, it is only in exceptional circumstances that the Authority should need to take a direct interest

in the “sub-sub-contracts” which the Building Contractor or FM Contractor enters into - the Authority does not normally need to see these documents or need collateral warranty agreements with these lower tier sub-contractors.

**Figure 7: Typical contract structure for a project**



### Sub-contract structure and parties

Although its shareholders or “sponsors” will be “real” trading companies, the Project Company is likely to be a special purpose entity set up for the Project. Where the Lenders are lending money on a “non-recourse” basis, as will normally be the case, the terms of the loan will provide that the Lenders only have recourse against the Project Company (and not its shareholders) if the loan is not repaid. As a result, the Lenders will have to rely on the revenue streams generated under the Project Agreement and on the provisions of the sub-contracts which the Project Company enters into; in order to ensure that the loan is repaid, the Building Contractor must build the Facility and the FM Contractor must provide the services correctly in order that payments are made in full under the Project Agreement by the Authority to the Project Company.

For the Project Company and its financiers, the general approach which will be taken is to ensure that all obligations and risks relating to the Project which can be passed down to the Building Contractor and FM Contractor and/or are covered by appropriate insurance policies. The building Contract and the FM Contract are then drafted with

such a “pass through” approach. The aim is to ensure that if the Project Company is in breach of one of its obligations under the Project Agreement, then the Building Contractor and/or FM Contractor will be in breach of the equivalent obligation to the Project Company. Any liability of the Project Company to the Authority or shortfall in the revenue stream under the Project Agreement can be recovered from the appropriate sub-contractor (and the Project Company is left in a neutral position, still able to maintain debt service).

Since the Building Contract and FM Contract will need to be drafted on a “back-to-back” basis with the Project Agreement, so that each reflects the provisions of the Project Agreement, it is likely that the Building Contract and the FM Contract will not be based on standard form contracts but will instead need to be prepared specifically for the Project.

The Project Company will seek to enter into a “turnkey” construction arrangement with the Building Contractor under which the Building Contractor must carry out all the obligations of the Project Company relating to the works for a fixed lump sum, adjustable only in the defined and limited circumstances specified in the Building Contract.

Similarly, the Project Company will seek to enter into one or more “single point” sub-contracts for the provision of the facilities management services required under the Project Agreement. Figure 7 shows a single sub-contract for all of these services, although alternatively there may be separate sub-contracts for each of the Hard FM services (that is, building maintenance and regular “life-cycle repairs”) and the Soft FM services (such as cleaning, catering and security). The Hard FM may also be undertaken by the Building Contractor, given the close relationship between initial capital cost and construction methods and later life-cycle costs.

The identity, track record and creditworthiness of the Building Contractor and the FM Contractor will, of course, be of even greater importance to the Project Company and its financiers than it will be to the Authority.

### **Contact between the Authority and the sub-contractors**

As a result of the “pass-through” nature of the sub-contracts, the Authority should expect the sub-contractors to be at least indirectly involved in the detailed negotiation of the Project Agreement. The Project Company will not wish to accept a risk or obligation under the Project Agreement which it cannot pass through into one or more of the sub-contracts, and so it will need the commitment of its sub-contractors before it can agree to any such risk or obligation. The Authority should therefore expect input from the sub-contractors in the tender and contract with them during post-tender discussions.

For day-to-day purposes during the project, the Authority should also expect to have contact with the sub-contractors. Most, if not all, of the obligations of the Project Company will be carried out by its sub-contractors. In addition, if the sub-contractors are “sponsors” of the Project (that is, shareholders in the Project Company itself), the members of the Project Company’s own management team are likely to be secondees from the sub-contractors. Accordingly, the Authority should expect representatives of the sub-contractors to be involved in certain of the management and liaison obligations of the Project Company.

Allowing for the role of sub-contractors does not need to have a significant impact on the Project Agreement. The Agreement simply needs to acknowledge the reality that the Project Company (almost certainly a special purpose off the shelf company) will not be

carrying out all works and services itself but will engage others to do so for it. Certain administrative provisions will be required to allow for this, so that for example reporting procedures and the arrangements for meetings on site permit the relevant sub-contractors to provide such information and, where appropriate, attend such meetings.

It may be to the benefit of all concerned for the Project Agreement to accept the concept of direct contact with sub-contractors; in circumstances where time is critical, such as where there has been a Force Majeure event, it would be quickest for the relevant sub-contractor to give notice of the event simultaneously to the Project Company under the sub-contract and to the Authority for the purposes of the Project Agreement.

### **Dispute resolution**

Another example of where the Project Agreement needs to recognise the special relationship with sub-contractors is in relation to dispute resolution. The “pass-through” nature of the sub-contracts means that a dispute under the Project Agreement is likely to involve an identical dispute under one or more of the sub-contracts. The Project Company will seek to match the potential liabilities and entitlements it has under the Project Agreement with those under the sub-contracts. So, as stated above, where the Project Agreement is liable to the Authority for a breach of the Project Agreement, it will want to ensure that it can recover this from one or more of its sub-contractors. Similarly, where the Project Company has an entitlement under the Project Agreement (for example an entitlement to an extension of one of its contractual deadlines or to some additional payment or compensation) the Project Company will try to limit the equivalent entitlement of the sub-contractors to the Project Company’s own entitlement - this is known in the UK as “equivalent project relief”. It is therefore extremely likely that, if a dispute arises between the Authority and the Project Company, one or more of the sub-contractors will also be directly involved.

Careful consideration will therefore need to be given by the Authority, Project Company and its sub-contractors to the possibility of “three-way” dispute resolution procedures, i.e. to the disputes under the Project Agreement and the sub-contract being joined so that they are dealt with together, or at least to similar mechanisms being included in the Project Agreement and the sub-contracts so that where a dispute arises under the Project Agreement and equivalent disputes arise in the sub-contracts these can be resolved in a consistent way. Clearly, it is essential for the Project Company that the dispute resolution procedures in the Project Agreement and in its sub-contracts produce consistent results. As a special purpose company with limited resources, the Project Company cannot risk ending up in a position where it is liable to the Authority but, because of a different award in the sub-contract dispute, it cannot recover from its sub-contractor. Nor should the Project Company find itself in a position where its liability to a sub-contractor is greater than its entitlement under the Project Agreement.

### **Other key terms of the sub-contracts**

In order to pass through the obligations and risks of the Project Company under the Project Agreement, the sub-contracts will repeat many of the provisions of the Project Agreement. For the Project Company, therefore, the most important elements of a sub-contract are the areas where there is not a complete pass-through of the Project Agreement obligations or where there are additional provisions over and above the pass-through of the Project Agreement. Some of these are discussed below.

## **The Project Company has more than one sub-contractor**

The Authority enters into a single Project Agreement with the Project Company, and the Project Company takes full responsibility for carrying out the works and services. The Project Company, however, usually allocates these responsibilities between two or more sub-contracts. This exercise raises certain special issues which do not arise in relation to the Project Agreement itself.

First, the Project Company must decide how it can best achieve the requirements of any “output specification” in the Project Agreement. There is, of course, a balance to be struck between the amount which the Project Company spends under its Building Contract as initial capital expenditure and the ongoing amounts it will need to spend as operational expenditure to provide maintenance and other services for the Project. Depending on the nature of the Project (and whether the Project assets are to be returned to the Authority at the end of the Project term) these are matters which the Authority may have an interest in.

Other aspects of the relationship between the Building Contractor and the FM Contractor are wholly management matters for the Project Company to deal with. For example, there will need to be co-operation between the Building Contractor and the FM Contractor during the design procedure, during the carrying out of the works and thereafter. Defects in construction will also have an effect on the provision of the services. Ongoing life-cycle maintenance will need to be integrated with the provision of the day-to-day services. The Project Company will need to manage these relationships and, for that purpose, may require some sort of co-ordination or interface agreement to be entered into by the Project Company and all of its sub-contractors. This will require the necessary liaison and co-operation between the sub-contractors and may also regulate disputes and liabilities arising between them.

### **Payment provisions**

In many PPP projects the Project Company must finance the whole of the building works itself and is not paid until the provision of the services has begun. The Building Contract will, however, contain normal provisions for the Building Contractor to be paid for the works as they proceed, such payments being funded by the Lenders, and these provisions will have no equivalent in the Project Agreement. These provisions will not be of direct concern to the Authority.

The Project Company will also need to ensure that the Building Contractor is liable for liquidated damages if it is late completing the works. UK PFI Project Agreements do not normally provide for liquidated damages for delay, as the penalty for the Project Company is that its payments will not commence until the Facility is complete and the services are being provided. However, the Project Company will need such liquidated damages to be able to satisfy its debt service obligations to the Lenders. To the extent that these liquidated damages are to be used for debt service, they are not of concern to the Authority.

However, if the Project Agreement does also require the Project Company to pay liquidated damages to the Authority, then the liquidated damages under the Building Contract will need to cover these amounts as well. Such an increase in the liquidated damages under the Building Contract can be negotiated, but this will of course increase the price which the Building Contractor demands. It is therefore normally in the interests of the Authority to agree that the Project Company will not be liable for liquidated damages for delay under the Project Agreement (or to keep the rate of such



liquidated damages to the lowest possible level) in order to enable the Project Company to secure the best price for carrying out the works.

In UK PFI projects there are often provisions in the Building Contract allocating the risk of different types of delay event (whether Force Majeure events, events causing physical damage to the Facility, events covered by insurance or otherwise) and setting out the types of delay where the Building Contract will and will not be liable to pay liquidated damages for delay. Again, to the extent that these liquidated damages are for debt service, these provisions are a commercial matter for the Project Company and its Building Contractor and should not be of concern to the Authority.

Similarly, while the sub-contracts will provide for payments from the Project Company to the sub-contractors during the operational period, these payment provisions may be more complex than the payment provisions in the Project Agreement. For example, in relation to life-cycle maintenance, the Project Agreement might simply provide that the Project Company must carry out such maintenance. However, in the relevant sub-contract, in addition to passing through this obligation the Project Company may include more detailed provisions for the monitoring of such maintenance and may link the carrying out of such work according to the programme to the release of payments to the sub-contractor.

### **Caps on the sub-contractors' liability**

While the Project Company will seek to pass through its risks and obligations in full, it is unlikely that the sub-contractors will accept unlimited liability to the Project Company. Accordingly, the Project Company will, as part of the negotiation of the Project Agreement, seek to limit its risks and potential liabilities in relation to the Project Agreement. This will also enable it to secure a better price for the provision of the works and the services.

The sub-contracts may also contain additional caps on the sub-contractors' liability to the Project Company. These are not of direct concern to the Authority but are of fundamental importance to the Project Company and the Lenders.

### **Termination arrangements**

The Project Agreement will contain events of default allowing the Authority to terminate the Project Agreement in certain circumstances, typically including when performance failures exceed certain thresholds. The Project Company will try to include the equivalent termination thresholds in its sub-contracts at a lower or more sensitive level than those in the Project Agreement. In this way the Project Company will try to ensure that it is able to replace a sub-contractor before the Project Company itself is terminated under the Project Agreement.

Depending on the nature of the termination, the Project Company may be liable to make certain termination payments to its sub-contractors. The way in which these termination payments are calculated will be of interest to the Authority, as the Project Company will seek to ensure that they are included in the amounts which the Authority is required to pay to the Project Company under the Project Agreement.

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## USEFUL WEBSITES

### UK Government:

H.M. Treasury	<a href="http://www.hm-treasury.gov.uk">www.hm-treasury.gov.uk</a>
Transport	<a href="http://www.dft.gov.uk">www.dft.gov.uk</a>
Health	<a href="http://www.doh.gov.uk">www.doh.gov.uk</a>
Education	<a href="http://www.dfes.gov.uk">www.dfes.gov.uk</a>
Trade and Industry	<a href="http://www.dti.gov.uk">www.dti.gov.uk</a>
Defence	<a href="http://www.mod.gov.uk">www.mod.gov.uk</a>
Home Office	<a href="http://www.homeoffice.gov.uk">www.homeoffice.gov.uk</a>
HM Prisons	<a href="http://www.hmprisonservice.gov.uk">www.hmprisonservice.gov.uk</a>
Environmental and Local Government	<a href="http://www.odpm.gov.uk">www.odpm.gov.uk</a>
Foreign and Commonwealth Office	<a href="http://www.fco.gov.uk">www.fco.gov.uk</a>
International Development	<a href="http://www.dfid.gov.uk">www.dfid.gov.uk</a>
Scottish Executive	<a href="http://www.scotland.gov.uk">www.scotland.gov.uk</a>
Welsh Assembly PPP	<a href="http://www.pfu.wales.gov.uk">www.pfu.wales.gov.uk</a>
Northern Ireland Assembly	<a href="http://www.ni-assembly.gov.uk">www.ni-assembly.gov.uk</a>

### Miscellaneous Official PPP Sites:

House of Commons: Select Committees	<a href="http://www.parliament.uk">www.parliament.uk</a>
Office of Government Commerce	<a href="http://www.pfi.ogc.gov.uk">www.pfi.ogc.gov.uk</a>
Partnerships UK	<a href="http://www.partnershipsuk.org.uk">www.partnershipsuk.org.uk</a>
National Audit Office	<a href="http://www.nao.gov.uk">www.nao.gov.uk</a>
Audit Commission	<a href="http://www.audit-commission.gov.uk">www.audit-commission.gov.uk</a>
Public Private Partnerships Programme (4Ps)	<a href="http://www.4ps.gov.uk">www.4ps.gov.uk</a>
Transport for London	<a href="http://www.tfl.gov.uk">www.tfl.gov.uk</a>
Network Rail	<a href="http://www.networkrail.com">www.networkrail.com</a>
Trades Union Congress	<a href="http://www.tuc.org.uk">www.tuc.org.uk</a>
Unison	<a href="http://www.unison.gov.uk">www.unison.gov.uk</a>
European Union PPP Guidelines	<a href="http://www.euroa.eu">www.euroa.eu</a>

### Miscellaneous Sites:

World Bank	<a href="http://www.worldbank.org">www.worldbank.org</a>
Asian Development Bank	<a href="http://www.adb.org">www.adb.org</a>
European Bank for Reconstruction and Development	<a href="http://www.ebrd.org">www.ebrd.org</a>
European Union and Institutions	<a href="http://www.europa.eu.int">www.europa.eu.int</a>
European Investment Bank	<a href="http://www.eib.org">www.eib.org</a>
European Investment Fund	<a href="http://www.eif.org">www.eif.org</a>
International Project Finance Association	<a href="http://www.ipfa.org">www.ipfa.org</a>
PPP Forum	<a href="http://www.pppforum.com">www.pppforum.com</a>
Public Private Finance	<a href="http://www.publicprivatefinance.com">www.publicprivatefinance.com</a>

### Australia:

Commonwealth Government	<a href="http://www.finance.gov.au">www.finance.gov.au</a>
Victoria Government PPPs	<a href="http://www.partnerships.vic.gov.au">www.partnerships.vic.gov.au</a>
Queensland Government PPPs	<a href="http://www.sd.qld.gov.au">www.sd.qld.gov.au</a>
New South Wales PPPs	<a href="http://www.nsw.gov.au">www.nsw.gov.au</a>

**Canada:**

Canadian Council for PPPs  
PPP (P3) Office

[www.pppcouncil.ca](http://www.pppcouncil.ca)  
[www.strategis.ic.gc.ca](http://www.strategis.ic.gc.ca)

**Denmark:**

PPP and public procurement

[www.udbudsportalen.dk](http://www.udbudsportalen.dk)

**Belgium:**

Public Private Partnerships Knowledge Centre  
Belgian Land Registry Office

[www.vlaanderen.be/pps](http://www.vlaanderen.be/pps)  
[www.minfin.fed.be](http://www.minfin.fed.be)

**Germany:**

Private Public Partnerships  
Knowledge Centre @ Weimar

[www.ppppartnership.de](http://www.ppppartnership.de)  
[www.uni-weimar.de/kcw](http://www.uni-weimar.de/kcw)

**Ireland:**

Public Private Partnerships  
Framework for Public Private Partnerships

[www.ppp.gov.ie](http://www.ppp.gov.ie)  
[www.finance.gov.ie](http://www.finance.gov.ie)

**Italy:**

Public Private Partnerships Knowledge Centre

[www.utfp.it](http://www.utfp.it)

**Netherlands:**

Public Private Partnerships Knowledge Centre  
Netherlands Association of International Contractors

[www.minfin.nl/pps](http://www.minfin.nl/pps)  
[www.nabu.nl](http://www.nabu.nl)

**South Africa:**

South African Treasury  
PPP Resource Centre

[www.finance.gov.za](http://www.finance.gov.za)  
[www.pppcentre.com](http://www.pppcentre.com)

**USA:**

Institute of PPP  
National Council for PPPs

[www.ip3.org](http://www.ip3.org)  
[www.ncpp.org](http://www.ncpp.org)



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