Public-Private Partnerships

IN PURSUIT OF RISK SHARING AND VALUE FOR MONEY

OECD

Public-Private Partnerships

IN PURSUIT OF RISK SHARING
AND VALUE FOR MONEY

OECD

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where the governments of 30 democracies work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Commission of the European Communities takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

This work is published on the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Organisation or of the governments of its member countries.

Also available in French under the title:
Les partenariats public-privé
PARTAGER LES RISQUES ET OPTIMISER LES RESSOURCES

Corrigenda to OECD publications may be found on line at: *www.oecd.org/publishing/corrigenda*.

© OECD 2008

OECD freely authorises the use, including the photocopy, of this material for private, non-commercial purposes. Permission to photocopy portions of this material for any public use or commercial purpose may be obtained from the Copyright Clearance Center (CCC) at *info@copyright.com* or the Centre français d'exploitation du droit de copie (CFC) *contact@cfcopies.com*. All copies must retain the copyright and other proprietary notices in their original forms. All requests for other public or commercial uses of this material or for translation rights should be submitted to *rights@oecd.org*.

Foreword

Goods and services can be delivered by governments in a number of different ways. Governments that previously both produced and provided services now tend to rely increasingly on the market for either inputs to government production and provision or for direct provision of goods and services. This move has been made both for ideological reasons and in the pursuit of value for money, *i.e.* how to improve the use of resources. Public-private partnerships (PPPs) are part of this trend. With PPPs, the government enters into a long-term contract with a private partner to deliver a good or service, and the private partner is responsible for building, operating and maintaining assets that are necessary for delivering a good or service to either the government or to individuals.

This book discusses important issues for countries that use PPPs or are considering their use. It also discusses the extent to which countries are now using public-private partnerships in service delivery. Issues include affordability and value for money, how PPPs are accounted for and treated in national budgets, and the institutional framework for a PPP process. The book also highlights ten good practices, summarising what countries should consider before entering into long-term contracts such as public-private partnerships.

The book is the result of a project led by the Budgeting and Public Expenditures Division (BUD) of the OECD Public Governance and Territorial Development Directorate (GOV), under the auspices of the OECD Working Party of Senior Budget Officials. Additional input was received from the Regulatory Policy Division (GOV/REG). The project was co-ordinated by Daniel Bergvall, Project Manager (GOV/BUD). In GOV/BUD, the principal authors were Philippe Burger, Professor and Chair of the Department of Economics, the University of the Free State, South Africa, and Daniel Bergvall. In GOV/REG, the principal author was Stéphane Jacobzone, Principal Administrator, with support from David An, consultant. Philippe Burger edited the final report.

The book has benefited from meetings and seminars organised by the OECD or in co-operation with member countries as well as non-member

countries, particularly in the context of the Middle East and North Africa initiative (MENA). It also includes results from a questionnaire that was sent to selected countries. The authors are grateful for the participation and discussion at meetings and for the responses to the questionnaire. Any misinterpretations from these sources of information are the responsibility of the authors.

The OECD Working Party of Senior Budget Officials aims to improve the effectiveness and efficiency of resource allocation and management in the public sector. Every year the Working Party organises a number of meetings on topics of interest to budget officials. Some are organised on a regular basis – for example, the meetings of the network on financial management (accrual accounting) and the network on performance and results. In addition to those meetings, other topics are discussed on an *ad hoc* basis, as requested by the Working Party. Such is the case for this project on public-private partnerships.

The OECD Working Party on Regulatory Management and Reform brings together the officials of member countries responsible for policies to manage and improve the processes in government by which regulations are designed, evaluated and improved. In this context, defining an appropriate boundary between the state and the private sector through suitable regulatory frameworks is a core issue. Issues addressed by the Working Party include regulatory impact analysis, consideration of alternatives to regulation, the integration of risk in regulation, and enforcement and compliance. These policy tools and issues are relevant to public-private partnerships. The Working Party is also increasingly engaged with non-member countries where significant policy demand exists for adequate regulatory frameworks for public-private partnerships, particularly as part of the MENA initiative. The Working Party is a constituent member of the OECD Group on Regulatory Policy (GRP) which brings public governance, trade and competition communities together on an annual basis. The GRP is responsible for the 2005 OECD "Guiding Principles for Regulatory Quality and Performance", endorsed by the OECD Council.

Table of Contents

Acronyms 9

Executive Summary.....11

Chapter 1. **Defining the Nature and Purpose of Public-Private Partnerships.....15**

Notes 25

Chapter 2. **The Trend towards Public-Private Partnerships: What are Countries Doing? 27**

Notes 33

Chapter 3. **The Economics of Public-Private Partnerships: Is the PPP Route the Best Alternative?.....35**

1. The criteria of affordability and value for money 36
   1.1. Affordability and value for money 37
   1.2. Affordability, limited budget allocations, and legally imposed budgetary limits.....44
   1.3. The role and nature of risk.....47
   1.4. The level of competition.....56
   1.5. The nature of the service 60
2. The public sector comparator (PSC) 69
   2.1. *Ex ante* assessment and the public sector comparator 69
   2.2. The public sector comparator and competition.....78
3. Measuring performance.....79
4. Evaluating the success of the public delivery of services, including those delivered through the PPP mechanism 82

Notes 84

Chapter 4. **Budget Scoring and Accounting Treatment of Public-Private Partnerships 89**

1. How public-private partnerships are budgeted and accounted for 92
   1.1. Treatment of public-private partnerships in national budgets 96
   1.2. Treatment of public-private partnerships in the national accounts ... 98
2. Disclosure of fiscal risks and recording of guarantees and contingent liabilities 100
3. Fiscal risk and guarantees 102

Notes 105

Chapter 5. **Managing the Creation of Public-Private Partnerships: The Role of PPP Units 107**

1. The rationale for a dedicated PPP unit 108
2. The need for expertise in PPP units 113

Note 115

Chapter 6. **Policy Framework and Procedural Tools 117**

1. Political support and engaging with all stakeholders 118
2. Corruption and ethical issues 121
3. Regulation and public-private partnerships 125
   3.1. Transparency and clear access to information 125
   3.2. The legal framework 127
   3.3. Compliance and enforcement 128

Notes 129

Chapter 7. **Conclusion 131**

Bibliography 135

List of tables

Table 2.1. Top ten countries with the largest public-private partnership/ private finance initiative project finance deals, 2003 and 2004 29
Table 2.2. The capital value of United Kingdom private finance initiative deals up to April 2007 32
Table 3.1. Potential areas of negotiation 70
Table 3.2. Performance indicators used by selected governments to measure the performance of public-private partnerships 81

List of boxes

Box 1.1. Definitions of public-private partnerships 17
Box 1.2. Different permutations of public-private partnerships 22
Box 3.1. What practices do countries follow to ensure affordability? 42
Box 3.2. The classification of risks 54
Box 3.3. Financing and refinancing of public-private partnership projects 59
Box 3.4. Building flexibility into the United Kingdom private finance initiative (PFI) 68
Box 3.5. Financial checklist for the public sector comparator 73
Box 3.6. Efficiency gains and differences in public and private sector interest rates 77
Box 3.7. Water sector infrastructure indicators 83
Box 4.1. International Monetary Fund government finance statistics 93
Box 4.2. Treatment of regular procurement contracts, equity stakes, guarantees, build-and-deliver contracts, financial and operating leases, concessions, and the transfer of capital assets in national accounts 95
Box 4.3. Eurostat decision on public-private partnerships 100
Box 5.1. The PPP Knowledge Centre in the Netherlands 110
Box 5.2. Partnerships Victoria, a PPP unit in Victoria, Australia 111
Box 5.3. The public-private partnership unit in the South African National Treasury 112
Box 6.1. The United Kingdom worker protection framework: Transfer of Undertakings (Protection of Employment) (TUPE) and the fair deal 122
Box 6.2. Procurement procedures and their exposure to corruption 124
Box 7.1. Good practices in the public-private partnership process 133

List of figures

Figure 1.1. The spectrum of combinations of public and private participation, classified according to risk and mode of delivery 20
Figure 3.1. The typical flow of services, payments for services and funding 41
Figure 3.2. Principles of optimal risk transfer 50
Figure 3.3. Degrees of risk sharing by project type 51
Figure 3.4. The categorising of risk 53
Figure 3.5. The spectrum of methods to assess value for money 71
Figure 5.1. Institutional capacity to negotiate with stakeholders 114
Figure 6.1. The legal context of a public-private partnership project 127

Acronyms

GDP: gross domestic product

GFS: government finance statistics

EMU: (European) Economic and Monetary Union

ESA95: European system of national and regional accounts

EU: European Union

IMF: International Monetary Fund

KPI: key performance indicators

NPC: net present cost

NPV: net present value

PFI: private finance initiative (term used in the United Kingdom)

PPP: public-private partnership

PSC: public sector comparator

SNA93: system of national accounts

SPV: special purpose vehicle

VFM: value for money

Currency:

AUD: Australian dollars

GBP: United Kingdom pounds

KRW: Korean wons

USD: United States dollars

ISBN 978-92-64-04279-7
Public-Private Partnerships:
In Pursuit of Risk Sharing and Value for Money
© OECD 2008

Executive Summary

Although private firms have been involved in public service delivery for a long time, the introduction of public-private partnerships (PPPs) in the early 1990s established a mode of public service delivery that redefined the roles of the public and private sectors. Throughout the 1990s and early 2000s, increasingly more countries – both within and outside the OECD area – started using this mode of delivery. The early trend setters include Australia and the United Kingdom, but by 2004 the list also included countries such as France, Germany, Ireland, Italy, Japan, Korea, Portugal, Spain, Turkey, Argentina, Brazil, South Africa and several others. Governments introduced PPPs for various reasons: to improve the value for money in public service delivery projects, or because PPPs had the potential of bringing private finance to public service delivery. Because many governments experienced the pressure of fiscal deficits and increasing public debt burdens by the mid 1990s, the perceived promise of private finance was alluring, especially for large infrastructure projects. During the last decade in particular, governments increasingly recognised that PPPs are an instrument to improve value for money although they do not necessarily constitute an additional source of previously untapped finance. Having said this, there is still a lack of clarity about the definition of public-private partnerships as well as the relationships between affordability, budgetary limits and access to private finance.[1]

The introduction of PPPs also raised a series of political, economic and technical questions. The first issue is whether there should be public or private provision of services that are traditionally provided by the public sector. The answers to this question involve economic and political choices that depend on the relative efficiency of public services in a given country, on the potential availability of capital, and on the social consensus about

acceptable ways of delivering certain services. The public and social acceptability of such partnerships is often a key factor. The economic questions concern issues such as contract management and risk sharing, which are done to maximise value for money. A number of tests are involved, relating to affordability, risk sharing and competition as well as providing a benchmark with a public sector comparator. In these decision processes and tests, budget decisions are a key factor, as some public authorities may see PPPs as a way to shift part of their debt off their books, particularly when they are faced with fixed ratios of acceptable public sector indebtedness.

At a more general level, engaging in a PPP process will require governments to define clear legal and policy frameworks and to ensure that the appropriate capacity exists within the government to initiate and manage PPPs. Ensuring an enabling environment for PPPs also has implications from the perspective of public governance, as the public sector needs to establish itself as a credible partner with appropriate regulatory and oversight mechanisms. This condition is particularly important, as public-private partnerships are often managed by decentralised authorities or local governments who must deal with major private sector actors.

Through a joint regulatory and budgetary perspective, this book undertakes a systematic analytical discussion of the issues mentioned above. The aim is to provide governments with a toolkit of issues to be explored and resolved from a public governance perspective before engaging in a PPP project. The book also defines possible good practices for the public sector to maximise the potential for PPP projects and to ensure that they are used appropriately to maximum general interest.

The systematic analytical discussion begins with a clearer definition of PPPs. A public-private partnership is defined as an agreement between the government and one or more private partners (which may include the operators and the financers) according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners. In making this clearer definition of public-private partnerships, the book also briefly considers the distinction between PPPs and concessions: it is recognised that there are significant similarities between PPPs and concessions (and, indeed, such similarities also mean that some of the lessons learned with regard to concessions can be applied to PPPs, and *vice versa*). Nevertheless, the book distinguishes between public-private partnerships and concessions on the basis of the amount of risk carried by the private provider, as well as the main source of income of the private provider (*i.e.* user charges and fees paid by the government).

Given the key role that affordability and value for money play in the success of public-private partnerships, the book discusses related issues in some detail. With regard to value for money, the discussion focuses on risk transfer and competition. The book argues that sufficient transfer of risk to the private partner is necessary to ensure efficiency and value for money. For the transfer of risk to be the most effective, risk must also be transferred to the party best able to carry it. By defining risk as the probability that the actual outcome (*i.e.* sales, costs and profits) will deviate from the expected outcome, and by distinguishing between endogenous and exogenous risks,[2] the book argues that efficiency depends on a sufficient transfer of endogenous risk to the private partner. The book also refines the principle that risk should be transferred to the party best able to carry it, by clarifying that "best able to carry it" means the party who can carry the risk at least cost, be it the government or the private partner.

The book also emphasises the importance of sufficient competition to ensure the effective transfer of risk. More specifically, a distinction is made between competition in the bidding process and competition in the provision of the service once the PPP contract has been concluded. Competition in the bidding process improves the bargaining position of the government and prevents opportunistic (monopolistic) behaviour on the part of the private bidders. Thus, competition in the bidding process helps a government to attain better value for money. Once the contract is concluded, competition ensures that the private partner delivers the agreed value for money because competition prevents moral hazard and limits the capacity of the private partner to force the government to renegotiate the terms of the contract. In the absence of competition, the government may, in effect, continue to carry the risk, even when risk has been transferred according to the PPP contract.

Following the discussion on the roles of risk transfer and competition to ensure value for money, the book examines the performance measurement of PPPs, with examples from several countries that use public-private partnerships. In addition, the report discusses the need for an institutional capacity to create, manage and evaluate PPPs. Dedicated units may help to ensure that public-private partnerships are handled properly and that there is appropriate knowledge available, and also regulate the creation of PPPs to ensure that they fulfil their requirements. These units need to be staffed with experts who are able to negotiate with peer public agencies and regional agencies as well as the private sector. The book discusses the type of expertise required for PPPs, as well as the required governance framework.

The book also discusses the policy framework for public-private partnerships. Political commitment at a high level is crucial for assuring private actors that commitment remains over the long run and that political risks will be minimised. The political commitment may also help convince

the public about the value of PPPs as a mode of service delivery. The book also highlights the importance of adequate regulations concerning corruption and ethical conduct as part of the PPP policy framework.

Finally, the book discusses regulatory questions such as transparency, the need for a legal framework, and compliance and enforcement issues. Access to information at all stages of PPP development will help increase transparency and efficiency in the process and may reduce opportunities for corruption. The regulatory framework needs to ensure that the PPP contract will align the objectives of the government and those of the private sector. Compliance and enforcement require that public institutions be able to monitor the conditions under which the service is delivered.

The book identifies possible good practices for the public sector to maximise the potential for PPP projects and to ensure that they are used appropriately to maximum general interest. These practices involve: affordability; value for money; fiscal rules and expenditure limits; risk sharing; the need for competition and transparency; regulatory issues; adequate institutional capacity; the public sector comparator; and the importance of political support.

Notes

1. Private sector participation in infrastructure was discussed for several core sectors – including electricity, water and transport – as part of the OECD International Futures Programme (OECD, 2006c and 2007a). In 2007, the OECD published the *OECD Principles for Private Sector Participation in Infrastructure* (OECD, 2007b).
2. Unlike exogenous risk, endogenous risk represents the case where the private partner can do something to ensure that the actual outcome approximates the expected outcome.

ISBN 978-92-64-04279-7
Public-Private Partnerships:
In Pursuit of Risk Sharing and Value for Money
© OECD 2008

Chapter 1

Defining the Nature and Purpose of Public-Private Partnerships

Goods and services can be delivered in a number of ways that may include the government and the private sector to varying degrees. As Musgrave (1959:44) already noted almost half a century ago, public service provision does not imply that government is necessarily also the producer of the services. Therefore, public service provision includes more than the rather limited case where the government is responsible for the design, construction, financing and operation of capital assets and the services that these assets generate. In fact, most government services are provided with assets that governments procure from the private sector or through contracts where private companies build the assets, usually according to government specifications. These assets may include buildings, computers, dams, roads, hospital equipment or military equipment. Governments may also contract private companies to supply certain services such as maintenance or advisory services. However, none of these arrangements may qualify as a public-private partnership. They may all still be categorised as traditional public procurement. So what is a PPP and how does it engage the private sector differently than traditional procurement? The answers to these questions help to define PPPs as something distinct from both traditional procurement and privatisation.

There is currently no clear definition of what constitutes a public-private partnership; the literature offers several possibilities (see Box 1.1). For example, according to the International Monetary Fund (IMF, 2006:1 and 2004:4), PPPs "…refer to arrangements where the private sector supplies infrastructure assets and services that traditionally have been provided by the government" while, according to the European Investment Bank (EIB, 2004:2), PPPs are "…relationships formed between the private sector and public bodies often with the aim of introducing private sector resources and/or expertise in order to help provide and deliver public sector assets and services."

The lack of definitional clarity may result from the fact that PPPs, according to Grimsey and Lewis (2005:346), "…fill a space between traditionally procured government projects and full privatisation" (also see Malone, 2005:420). This is a broad space to fill. In addition, public-private partnerships represent cases where the private sector provides services that have traditionally been provided by the public sector (Grimsey and Lewis, 2005:346). PPPs are not the only type of relationship to fill this space. The space between traditional procurement and full-scale privatisation may include – in addition to PPP contracts – short-term management and outsourcing contracts, concession contracts and joint ventures between the

public and private sectors. Furthermore, the degree of ownership of assets and capital expenditure by the private partners may vary, with very limited or no capital expenditure in the case of a management contract, whereas the private sector is responsible for the design, building, operation and financing of a capital asset in a full-scale concession or PPP contract (Malone, 2005:420). To deliver the service, the private partner receives payment from either the government (at regular intervals) or user charges, or both.

Box 1.1. Definitions of public-private partnerships

In this book, the OECD defines a public-private partnership as an agreement between the government and one or more private partners (which may include the operators and the financers) according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners.

According to the International Monetary Fund (IMF, 2006:1 and 2004:4), public-private partnerships (PPPs) refer to arrangements where the private sector supplies infrastructure assets and services that traditionally have been provided by the government. In addition to private execution and financing of public investment, PPPs have two other important characteristics: there is an emphasis on service provision, as well as investment, by the private sector; and significant risk is transferred from the government to the private sector. PPPs are involved in a wide range of social and economic infrastructure projects, but they are mainly used to build and operate hospitals, schools, prisons, roads, bridges and tunnels, light rail networks, air traffic control systems, and water and sanitation plants.

For the European Commission (EC, 2004), the term "public-private partnership" is not defined at Community level. In general, the term refers to forms of co-operation between public authorities and the world of business which aim to ensure the funding, construction, renovation, management and maintenance of an infrastructure of the provision of a service.

Standard and Poor's definition of a PPP is any medium- to long-term relationship between the public and private sectors, involving the sharing of risks and rewards of multi-sector skills, expertise and finance to deliver desired policy outcomes (Standard and Poor's, 2005).

For the European Investment Bank (EIB, 2004:2), "public-private partnership" is a generic term for the relationships formed between the private sector and public bodies often with the aim of introducing private sector resources and/or expertise in order to help provide and deliver public sector assets and services. The term PPP is thus used to describe a wide variety of working arrangements from loose, informal and strategic partnerships, to design-build-finance-and-operate (DBFO) type service contracts and formal joint venture companies.

Therefore, given that public-private partnerships occupy a middle ground between traditional public procurement and privatisation, it is necessary to distinguish them clearly from both. It is also necessary to distinguish PPPs from concessions (though the two are closely related). To define PPPs and to distinguish them from all other forms of public and private sector interaction, it is necessary to first understand the main reason for implementing public-private partnerships.

According to the European Investment Bank (EIB, 2004:4) and Grimsey and Lewis (2005:346), there are several reasons to undertake PPPs, some more legitimate than others.[1] The main reason is to improve service delivery – that is, to create better value for money compared to the case where a government delivers the service (*i.e.* the case of traditional public procurement). Thus, even if delivery through traditional procurement is effective (*i.e.* the government delivers the quantity it intended), the service may not necessarily be of quality nor delivered efficiently (*i.e.* at least cost). Thus governments may decide to conclude PPP contracts and draw on the capacity of the private sector to efficiently deliver quantity and quality. However, the discussion below will show that, although private sector participation in PPPs frequently contributes to higher levels of efficiency, the mere participation of the private sector in the delivery of the service is not sufficient to ensure improvement in service delivery and efficiency. Such improvements depend crucially on a sufficient transfer of risk from the public sector to the private partner. In the absence of a sufficient transfer of risk, service delivery can be deemed as public procurement even if a private company is involved. Thus, the distinguishing feature that determines whether a project is defined as traditional public procurement or as a public-private partnership should be whether or not a sufficient amount of risk has been transferred.

With this clear distinction between traditional procurement and a PPP, the focus can now shift to the distinction between PPPs and privatisation and the question of whether PPPs are not just a form of privatisation. The distinguishing feature in this case is the focus on partnership. Some critics object to the use of the term "partnership" in "public-private partnerships": they argue that partners usually share the same objectives while, given their different natures, the public and private parties in a PPP do not share the same objectives. More specifically, the objective of the private sector is to make a profit, while that of the government is supposed to be service delivery. However, this might be a too narrow interpretation of "partnership". A wider definition would not only include the cases where the partners share the same objectives, but also the cases where partners with different objectives are nevertheless able to align those objectives in such a manner that realising the objectives of one party also implies the realisation

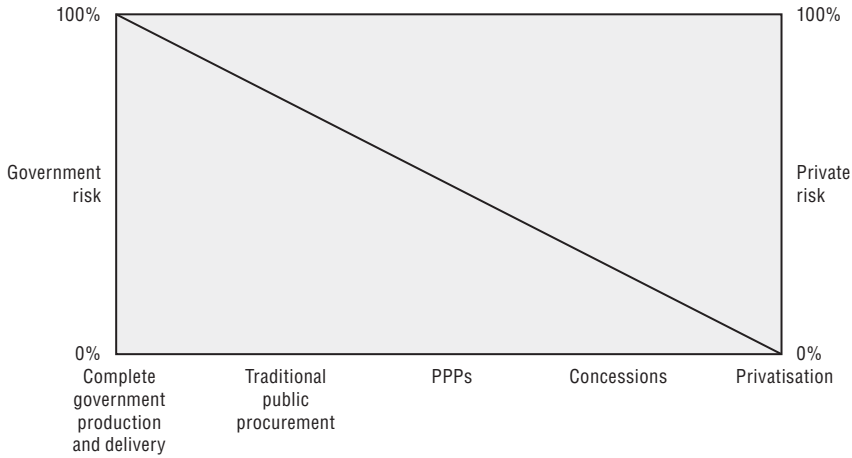
of the objectives of the other party. Thus, if a PPP contract implies that the private partner will maximise its profit if it delivers a service efficiently and effectively, then the contract constitutes a partnership since both parties – the government and the private partner – will achieve their objectives.

This broader definition of the term "partnership" helps to distinguish PPPs from privatisation. Privatisation involves no strict alignment of objectives since it usually means that the government is not involved in the output specification of the privatised entity, while also allowing the privatised entity to pursue maximum profit.[2] In the case of a public-private partnership, the government usually specifies in some detail both the quantity and quality of the service that it requires, and the government and the private partner agree upon the price when they conclude the contract. The company would then expect to maximise its profit at the agreed price.

Based on the preceding discussion, PPPs may be depicted on a spectrum that represents all possible combinations and levels of public and private sector involvement in the various modes of service delivery, classified according to the risk allocation between parties (see Figure 1.1). Except for the case where the government is entirely responsible for the design, construction, management, financing and operation of capital assets and the services that these assets generate, all these modes involve the private sector to some extent. The modes of delivery range from traditional public procurement where the government procures the assets and services from the private sector, to full private delivery where the government is not involved at all. PPPs are situated in the middle of the spectrum. However, the borders between the various modes of delivery are not always rigid, and there can be overlaps depending on the amount of risk shared.

In the case of traditional public procurement, the government specifies the quality and quantity of the service required and negotiates the price with the private provider (often through a tender process). The government may also specify the design of the goods that it procures so that the private sector builds the goods to specification. Usually the government uses these goods and services as inputs for its service provision to citizens or merely buys them from the private sector and transfers them to citizens. In such cases, the government then also carries the risk involved in the service delivery (*cf.* Corner, 2006:39). In the case of full private provision, it is of course the private providers that set the quality and quantity of the goods delivered, while they also specify the design and set the price (possibly after negotiating with their clients).[3] In such cases, the private providers carry the risk involved in the service delivery.

Figure 1.1. The spectrum of combinations of public and private participation, classified according to risk and mode of delivery



PPPs are situated between traditional public procurement and full private provision. Usually the government sets the quality and quantity required, and allows the private partner to design and build the asset and service (*cf.* Corner, 2006:40). Leaving the design to the private partner creates room for the private partner to be innovative in its design and thereby improve the level of efficiency of the service. In addition, if the government prescribes the design, it would also have to carry the risk resulting from faulty design (Corner, 2006:48). Thus, the government would rather leave that risk, as well as the possible efficiency gain, to the private partner. As is the case with public procurement, the government and the private partner negotiate a price (usually also involving a tender process). However, in contrast to traditional procurement, the government does not buy the capital asset directly from the private partner. Rather, it buys the stream of services that the private partner generates with the asset. This means that the private partner is usually also responsible for the operation and maintenance of the capital asset and the delivery of the service. Fulfilling these responsibilities also requires compliance with the specifications for quality and quantity that were agreed with the government. A further implication is that the private partner carries at least part of the risk associated with the delivery of the service. Furthermore, compliance with the quality and quantity specifications at the agreed price should theoretically yield the value for money that the government intended to achieve when it entered into the PPP agreement. Like any user of

services, the government wants value for money, namely maximum quality and features that meet its specifications at the best possible price. Thus, to the government, value for money represents an optimal combination of quality, features and price, calculated over the whole of the project's life. The United Kingdom government (HM Treasury, 2006a:29) defines it as: "…the optimum combination of whole-life cost and quality (or fitness for purpose) to meet the user's requirement".

Thus, to conclude, one can define a public-private partnership as an agreement between the government and one or more private partners (which may include the operators and the financers) according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners. The service delivery objectives of the government involve efficiency and effectiveness, where the latter is defined in terms of the quantity and quality of the service. By their very nature, the profit objectives of the private partners also involve the improvement of efficiency and the minimisation of the impact of risk on profit. This definition of a PPP implies that (see also IMF, 2004:7; Corner, 2006:40):

- The private partners usually design, build, finance, operate and manage the capital asset, and then deliver the service either to the government or directly to the end users. The involvement of the private partners in all these activities is a key distinction from past practices where the private actor worked on either the construction or the operation of an asset, or only provided finance when the government borrowed to finance its expenditure. (See Box 1.2 for different permutations of PPPs.)
- The private partners will receive either a stream of payments from the government or user charges levied directly on the end users, or both.
- The government specifies the quality and quantity of the service it requires from the private partners. If the government is also responsible for a stream of payments to the private partners for services delivered, these payments may depend on the compliance of the private partners with the government's quality and quantity specifications.
- There is a sufficient transfer of risk to the private partners to ensure that they operate efficiently.

- At the end of the contract, the government may become the owner of the asset after paying the private partner a contractually agreed residual value. Since that value may fall short of or exceed the actual market value of the asset, the government carries the residual value risk.

Box 1.2. Different permutations of public-private partnerships

Public-private partnerships typically encompass a series of activities such as design, build, operate, finance. Not all PPPs will encompass all of these activities; several permutations may exist. The classification below draws on IMF (2004) and Malone (2005:421). The wording indicates the activities for which the private sector takes responsibility. For instance, in the case of a build-own-maintain contract, the private partner builds the asset, owns it and is also responsible for its maintenance. For more detail on the definitions, see IMF (2004) and Malone (2005).

Build-own-maintain (BOM)

Build-own-operate (BOO)

Build-develop-operate (BDO)

Design-construct-manage-finance (DCMF)

Design-build-operate (DBO)

Design-build-finance-operate (DBFO)

Buy-build-operate (BBO)

Lease-own-operate (LOO) or Lease-develop-operate (LDO)

Wrap-around addition (WAA)

Build-operate-transfer (BOT)

Build-own-operate-transfer (BOOT)

Build-rent-own-transfer (BROT)

Build-lease-operate-transfer (BLOT)

Build-transfer-operate (BTO)

A PPP is often organised by way of a special purpose vehicle (SPV) which is typically a consortium of financial institutions and private companies responsible for all the activities of a PPP (including the co-ordination of the financing and the service delivery) (IMF, 2004:9; Hemming *et al*., 2006:8). A public-private partnership can be led by the private contractor performing the service (the United Kingdom model) or by

the financial institution responsible for the financing of the project (the Australian model) (Grimsey and Lewis, 2005:363).

Having distinguished PPPs from both traditional procurement and privatisation, there is one remaining question: what distinguishes PPPs from concessions (and to what extent their definitions overlap). The OECD (2006b:19) sets out the defining features of a concession:

- A concession grants the right to a private firm to operate a defined infrastructure service and to receive revenues from it.
- The concessionaire usually pays the concession-granting authority a fee to obtain this right.
- The concessionaire carries the bulk of the risk.
- The asset involved in the delivery of the service remains the legal property of the government, though the private firm has the right to operate it and use it to generate income. The private firm is also typically responsible for the maintenance of the asset.
- According to the *sensu stricto* definition of concessions, the asset must be transferred to the government at the end of the contract term.

The first three points constitute the essential characteristics. Concessions usually differ from privatisation in that the asset remains the legal property of the government and the contract has a limited duration (say, 15 to 30 years) (OECD, 2006b:19). Compared to privatisation, the contractual negotiations for concessions may also establish a much more detailed relationship between the government and the concessionaire. Contracts may contain detailed clauses on the quality and quantity of the service that the private firm must deliver, and often these details determine which firm is awarded the concession (in so-called "beauty contest" auctions). Typical concessions cover municipal water provision, cable television, mobile phone services and toll roads. The assets involved in concession contracts may be notional and intangible assets. Examples include the right of a television station or a mobile phone network to operate at a contractually specified frequency.

Concessions and PPPs have in common that both use the private sector to improve value for money (VFM) and efficiency, and both see risk transfer to the private operator as the essential element to drive VFM. Both a concession and a public-private partnership typically involve a private firm that operates, maintains and finances the asset during the contract period and a government that regains control of the asset at the end of the contract. Concessions and PPPs also typically use a whole-of-life project cycle

approach when considering the net benefits of a project. Thus, PPPs and concessions share many features, so that the question remains: what distinguishes a public-private partnership from a concession? The two distinguishing characteristics concern risk and payment. First, although both PPPs and concessions involve the transfer of risk to the private operator, the level of risk transferred – especially demand risk (a type of risk discussed further below) – might in general be higher in the case of a concession. Second, although both PPPs and concessions might receive payment from the government and user charges levied directly on the users of the service, concessions usually depend on user charges for the majority of their income, and many do not receive any payment from the government. In fact, instead of the government paying the private operator for services delivered, in the case of a concession the private operator pays the government for the right to operate the asset. Having made this distinction, it should also be mentioned that much of the literature does not draw a clear line between PPPs and concessions when discussing the problems that give rise to contractual renegotiations or issues regarding affordability or value for money. The omission of a clear distinction is not necessarily a failure to distinguish clearly, but may result from the significant overlap in definition as well as from issues and problems that affect both modes of service delivery. The discussion will consider this overlap where necessary.

Notes

1. For instance, the IMF (2004:36) and Quiggin (2005:446) note that, in the 1980s, the primary motivation for obtaining private financing for public investment projects was that it allowed public sector enterprises and local governments to escape spending controls. Other reasons for government involvement include (Malone, 2005:422): limited resources; the need for new infrastructure and the replacement of old; fiscal rules that require the reduction of debt; a public that does not accept privatisation; a shift towards a philosophy of service delivery instead of asset acquisition; and progress with PPPs in other parts of the world. Ball and King (2006:37) note that, although initially the perception existed that private finance initiatives (PFIs) in the United Kingdom would allow the government to tap a pool of finance it could not tap previously, this is a misperception since, in a well-developed financial system, the government and the private sector access the same financial markets and thus the same pool of finance.
2. Exceptions exist, of course – for example, where the government continues to regulate the price and quality of outputs of a public monopoly that becomes a private monopoly after privatisation.
3. The government may nonetheless play a role through regulations that, for example, set minimum standards for design and maximum prices per unit.

ISBN 978-92-64-04279-7
Public-Private Partnerships:
In Pursuit of Risk Sharing and Value for Money
© OECD 2008

Chapter 2

The Trend towards Public-Private Partnerships: What are Countries Doing?[1]

Although some countries have a longer experience with public-private partnerships (in one form or another), the past two decades have seen a huge increase in their use as a mode of public service delivery in the countries that implement them. In the experience of most countries, the trend has been to begin with PPPs in the transportation sector and then, as the expected benefits (most commonly measured by value for money) begin to materialise, to move gradually towards other sectors. Other services that governments deliver through PPPs in the early stages of their use are water and waste management and health care (PricewaterhouseCoopers, 2005:38). The majority of the projects undertaken by OECD countries have been in transportation infrastructure such as airports, railroads, roads, bridges and tunnels. Other projects include public utilities and services such as waste and water management, educational and hospital facilities, care for the elderly, and prisons. In addition, governments of both OECD member and non-member countries have often used PPPs to build new assets or upgrade deteriorating ones. Despite the rather extensive roll-out of public-private partnerships in some countries, they should not be seen as a mechanism that will largely replace public procurement in the future. For a number of years in the United Kingdom, private finance initiative deals (PFI[2]) have made up a mere 10-15% of the total annual public investment expenditure, thus a small proportion in the country probably best known for its relatively extensive use of public-private partnerships.

AECOM (2005:4) reports that, between 1985 and 2004, worldwide public-private financing occurred in 2 096 projects and totalled nearly USD 887 billion. Of this total, USD 325 billion went to 656 transportation projects. Of the 2 096 projects, 1 121 were completed by 2004 (AECOM, 2005:4), with a total value of USD 451 billion. Several developed countries as well as some emerging market economies increasingly engage in public-private partnerships to deliver services that were previously delivered through traditional procurement (see Grimsey and Lewis, 2005:348-350, for a comprehensive list). Developed countries with extensive PPP experience include Australia and the United Kingdom. Recent large players include Korea, Portugal and Spain, while countries such as France, Germany, Hungary, Italy, Japan and the Nordic countries also have experience with public-private partnerships. Table 2.1 lists the top ten countries engaged in PPP/PFI project finance deals in 2003 and 2004. The table shows that the large players include Australia, Korea, Spain and the United Kingdom. In both years, the United Kingdom led the group, with PFI deals in excess of USD 13 billion. The European Investment Bank (EIB, 2004:5) reports that,

by 2004, the United Kingdom had 650 projects of which 400 were in operation. Total capital expenditure was GBP 48 billion or approximately 12% of total annual capital expenditure (also see KPMG, 2007:4). The list of signed private finance initiative projects of HM Treasury as of April 2007 shows 590 projects with a total capital value of GBP 53.4 billion (HM Treasury, 2007), or GBP 35.8 billion if the three London Underground projects to the value of GBP 17.6 billion are excluded. These three contracts constitute the largest PPP arrangements in the United Kingdom. Of the remaining contracts, the two largest PFI projects concern defence (the largest with a total capital value of GBP 1.26 billion, and the second largest with a value of GBP 1.08 billion), while the third largest is a health contract (with a total capital value of GBP 1 billion) (HM Treasury, 2007).

Table 2.1. Top ten countries with the largest public-private partnership/private finance initiative project finance deals, 2003 and 2004

Rank 2004	Country	Value USD millions	Deals	% share	Rank 2003	Value USD millions	Deals	% share
1	United Kingdom	13 212	81	32.6	1	14 694	59	56.7
2	Korea	9 745	9	24.1	3	3 010	3	11.6
3	Australia	4 648	9	11.5	7	611	4	2.4
4	Spain	2 597	7	6.4	2	3 275	8	12.6
5	United States	2 202	3	5.4	4	927	2	3.6
6	Hungary	1 521	2	3.8	11	251	1	1.0
7	Japan	1 473	15	3.6	10	274	5	1.1
8	Italy	1 269	2	3.1	5	714	3	2.8
9	Portugal	1 095	2	2.7	n.a.	n.a.	n.a.	n.a.
10	Canada	746	3	1.8	n.a.	n.a.	n.a.	n.a.

Source: Dealogic, quoted in OECD (2006), "Interim Report on the Role of Private Participation in Major Infrastructure Provision", GOV/TDPC/URB(2006)5, OECD, Paris, page 57.

Korea has recently accelerated its PPP initiatives. It has followed a similar path to other OECD countries, starting off with transportation infrastructure projects, after which there is a gradual expansion into schools, hospitals, and public housing projects. As of August 2006, Korea had 64 projects under operation, 76 under construction, 35 preparing to construct, 53 under negotiation and 32 under review (Park, 2006).

To a large extent, public-private partnerships in Spain focus on transportation, with private sector participation set to be a key element in the 2005-20 transportation plan of the government. That plan entails an investment of EUR 248 billion over the 15-year period, of which the private sector is said to contribute approximately 20% (Sevilla, 2008). The OECD (2006a:57) reports that in 2001 the French government concluded a 62-year concession contract with ALIS (*Autoroute de Liaison Seine-Sarthe*) to design, build, finance and operate a 125 km motorway in the northwest of France at a total cost of EUR 900 million. The motorway opened in October 2005. In addition, the French government announced 35 PPP projects that include part of the TGV Rhine-Rhone high-speed train line (*train grande vitesse*), the renovation of the zoo at Vincennes, and the rebuilding of the *Maison d'arrêt de la Santé* (*Santé* prison) in Paris (OECD, 2006a:58). The French government also plans to use public-private partnerships to construct 18 prisons and for 30 schemes in health care (Poulter, 2005:14).

In Germany, the federal government as well as several of the *Länder* became interested in using public-private partnerships, in particular to deliver infrastructure services (OECD, 2006a:58).[3] In addition, several municipalities in Germany also use PPPs to deliver local government services; ten new projects to the value of EUR 500 million entered the market in 2005, with the total market estimated to be worth EUR 1 billion (Drömann, as quoted in OECD, 2006a:58). Portugal has also extensively expanded partnership projects across various sectors. With a ratio of between 1.2% and 1.3% of GDP, Portugal has the highest PPP-to-GDP ratio in Europe (nearly double the United Kingdom ratio of between 0.6% and 0.7%) (PricewaterhouseCoopers, 2005:37). In addition to several large transportation projects, Portugal also initiated PPP projects in water and waste management.

In addition to transportation projects, Ireland has seen several water and waste projects (PricewaterhouseCoopers, 2005:38). The Irish government also announced PPP deals in prisons, courts, and the health and education sectors. In Italy, PPP projects focus especially on transportation, but there are also projects regarding health, water and central accommodation (PricewaterhouseCoopers, 2005:38). In Australia, the largest toll road is the Mitcham-to-Frankston scheme (called Eastlink), to the value of AUD 2.5 billion; it includes a 40 km road in Melbourne (PricewaterhouseCoopers, 2005:54). Other projects include the Sydney Harbour Tunnel, the M2, M4 and M5 motorways, the Eastern Distributor, the Western Sydney Orbital and the Lane Cove Tunnel (Brown, 2005:431).

Turkey has experienced some obstacles in PPP implementation, especially in the energy sector (a sector that has been a source of considerable debate since 1984) (Özeke, 2005). The challenge derives

primarily from a constitutional clause that prevents ownership transference of natural resources to any entity, public or private. An inadequate legal framework for PPPs and lacklustre political support have also hindered PPP implementation. The most recent government effort has been to attempt partnerships with state-owned enterprises instead of private partnerships or privatisation.

The countries using public-private partnerships are not limited to developed countries, but also include several emerging market economies such as Brazil, Chile, China and South Africa. In some of these countries, the implementation of PPPs is well under way, though some of them do experience problems. According to Bellier and Zhou (2003), the initial PPP experience in China highlights the fact that traditional joint venture frameworks were ill-equipped for PPP implementation.

In contrast to developments in Turkey and China, Chile and South Africa have a more positive experience with PPPs, primarily because the legal frameworks in both countries have been geared to deal effectively with public-private partnerships (IMF, 2006:58-61 and 63-64).

Although many countries implemented PPPs, not all sectors experienced the same level of PPP activity. The European Investment Bank reports that the most prominent sectors are transportation, followed by schools and hospitals (EIB, 2004:5). Sectors such as waste, ports and housing have not seen the same level of activity, though there are signs of heightened levels. An analysis of the regional breakdown shows that road and rail PPP projects are dominant in all geographic areas except the Middle East and Africa, where water projects were the largest category (AECOM, 2005:8). PricewaterhouseCoopers (2005:35) reports that, among others, France, Ireland, Italy, Portugal, Spain and the United Kingdom closed a substantial number of road and bridge projects. Italy and the United Kingdom closed numerous projects in health and hospitals, while Greece and the United Kingdom are prominent in airport projects. With regard to schools, Germany and the United Kingdom are major players, while Spain closed a large number of port projects. France, Ireland, Italy, Portugal, Spain and the United Kingdom are prominent in the area of water and wastewater projects. In addition to the above sectors, the United Kingdom has also closed projects on light railways, central accommodation, housing and prisons.

Thus it is clear that, with the exception of ports and heavy railways, public-private partnerships in the United Kingdom are quite prominent in almost all these sectors. HM Treasury (2006a:20) reports that, with regard to the approximately 200 projects with a total value of GBP 26 billion, the majority (with a value in excess of GBP 8 billion) are administered by the Department of Health, while the second largest group is administered by the

Ministry of Defence (in excess of GBP 5 billion). Of those projects already closed (and excluding the London Underground projects), the majority are in health (24%) and education (20%), followed by transportation (18%) and defence (16%) (KPMG, 2007:4). Using the April 2007 data that cover the 590 PFI contracts signed to date, the projects administered by the Department of Health are worth GBP 8.3 billion, those of the Ministry of Defence GBP 5.7 billion, and those of the Department of Transport (excluding the London Underground projects) and the Department of Education are worth GBP 4.9 billion and GBP 4.4 billion (HM Treasury, 2007). The three London Underground projects of the Department of Transport constitute another GBP 17.6 billion (HM Treasury, 2007). As Table 2.2 shows, the inclusion of the three London Underground projects means that transportation projects constitute 42% of the capital value of United Kingdom private finance initiative deals. In second, third and fourth place are health (16%), defence (11%) and education (8%).[4]

Table 2.2. The capital value of United Kingdom private finance initiative deals up to April 2007 (GBP million)

	Including London Underground projects		Excluding London Underground projects	
	Total capital value	% of total	Total capital value	% of total
Health	8 290	16	8 290	23
Transportation	22 496	42	4 902	14
Defence	5 644	11	5 644	16
Education	4 388	8	4 388	12
Others	7 203	13	7 203	20
Scotland, Wales and Northern Ireland	5 380	10	5 380	15
Total	53 404	100	35 807	100

Source: HM Treasury (2007), "PFI Signed Projects List", April, *www.hm-treasury.gov.uk/documents/public_private_partnerships/ppp_index.cfm*.

Notes

1. Consistent international statistics based on agreed definitions do not currently exist. The overview in this chapter draws on several sources to obtain an indication of the scope of PPPs. As such, the statistics reported in different sources are not necessarily comparable.

2. In much of the literature, the United Kingdom term "private finance initiative" (PFI) is used interchangeably with "public-private partnership" (PPP), a convention that is also followed here.

3. In 2001, Nordrhein-Westfalen became the first German *Land* to establish a legal and policy framework for public-private partnerships. Because of the significant interest in PPPs in the federal government as well as in the *Länder*, Germany has established several competence centres to assist governments in setting up PPPs (OECD, 2006a:58).

4. Although data are currently not broken down to distinguish how large a part of the contract value of United Kingdom private finance initiative deals concerns investment and how much involves other expenditure, estimates of the share of the unitary charge in a typical PFI project suggest that 60-70% of the unitary charge goes towards capital and 40-30% to services (although this is likely to differ across sectors).

ISBN 978-92-64-04279-7
Public-Private Partnerships:
In Pursuit of Risk Sharing and Value for Money
© OECD 2008

Chapter 3

The Economics of Public-Private Partnerships: Is the PPP Route the Best Alternative?

In essence, a public-private partnership is a mode of service delivery that attempts to improve the value for money of government service delivery compared to the case of traditional public procurement. Merely concluding a contract with a private operator to deliver a service is in itself no guarantee that value for money will improve. This chapter describes the preconditions to ensure value for money. It also discusses affordability, particularly since some governments in the past believed, fallaciously, that if a project is off the government books, it becomes more affordable. The "off the books" characteristic of PPPs has been especially appealing for countries with self-imposed fiscal rules or budgetary limits that can create incentives for governments to move expenditures to the future, instead of financing them up front. Affordability, as such, has nothing to do with the set of books on which the project appears. Rather – regardless of whether the government uses in-house production, traditional procurement or a public-private partnership – affordability depends on the intertemporal budget constraint of the government. This chapter also discusses the related issue of limited budget allocations and legally imposed budgetary limits.

1. The criteria of affordability and value for money

Affordability and value for money (VFM) are the benchmarks for PPP viability. Because of the off-balance sheet nature of PPPs, their use has led to some misconceptions regarding their impact on the affordability of projects.[1] Though PPPs may enable some projects to become affordable, this does not stem from their off-balance sheet nature. Affordability is not only related to public-private partnerships, but to government expenditure items in general. A project is seen as affordable if government expenditure associated with a project, be it a PPP or other mode of delivery, can be accommodated within the intertemporal budget constraint of the government.

A public-private partnership can make a project affordable if it increases the value for money (VFM) compared to the VFM realised through traditional public procurement, and then only if the increased VFM causes a project that did not fit into an intertemporal budget constraint of the government under public procurement to do so with a PPP.[2] According to the European Commission, value for money must be a primary objective in PPP design. The Commission associates VFM with reduced life-cycle costs, better allocation of risk, faster implementation, improved service quality, and generation of additional revenue (EC, 2003). Governments of OECD

countries echo similar sentiments in using VFM when deciding whether or not to choose the PPP route. According to the Arthur Andersen and Enterprise LSE study (2000:18), obtaining value for money depends on risk transfer, output-based specifications, the long-term nature of contracts, performance measurement and incentives, competition, and private sector management expertise. The Fitzgerald report on PPPs in Victoria, Australia, states that the government follows the guideline that VFM can be delivered through risk transfer, innovation, greater asset utilisation and integrated whole-of-life management (P. Fitzgerald, 2004:17). A distinction between the Australian approach to value for money and that of the European Commission is that the EC perspective views *ex ante* VFM analysis separately from a second VFM assessment made after the procurement stage but prior to the finalisation of the contract. According to the Commission, the *ex ante* VFM analysis focuses on the potential of the public-private partnership to generate value for money, while the second VFM analysis examines VFM achieved (EC, 2003).[3]

When the government must decide between traditional public procurement and a public-private partnership, the question is which of these options is the most affordable and will deliver the highest value for money. The more effective and efficient the outcome, the higher the VFM will be. The choice is not straightforward and depends on several determinants, including:

- affordability and value for money;
- affordability, limited budget allocations and legally imposed budgetary limits;
- the role and nature of risk transfer;
- the level of competition;
- the nature of the service.

These aspects must all be considered in the *ex ante* VFM assessment of a project. In addition, such assessments must be made on a project-by-project basis. In the discussion that follows, these aspects will be explored in turn. The discussion will then turn to the public sector comparator (PSC), an instrument for assessing value for money that is used by governments such as those of Australia and the United Kingdom.

1.1. Affordability and value for money

In principle, affordability is about whether or not a project falls within the intertemporal budget constraint of government. If it does not, then the

project is unaffordable. However, because the cash flows and balance sheet treatment of PPPs differ significantly from that of traditional procurement, some confusion exists regarding the effect of public-private partnerships on affordability. Traditional procurement typically involves the following:[4]

1. On the expenditure side:
   - capital expenditure by a government to create an asset necessary for the provision of the service. Usually the government incurs this expenditure during the start-up phase. However, later during the life of the asset, the government may also undertake major upgrading or rehabilitation;
   - current expenditure by a government which entails two main components, namely operating costs (including salaries, consumables and maintenance) and interest payments on the loans that the government made to finance the project.[5]
2. On the revenue side:
   - general tax revenue to cover expenditures;
   - fees or user charges, if applicable.

Current expenditures such as operating costs are incurred over the lifetime of the asset, while interest payments are usually liable in perpetuity since government debt is typically rolled over and not paid back, although exceptions do exist. For example, when the debt-to-GDP ratio is considered excessively high – exceeding for instance the 60% benchmark of the European Union Stability and Growth Pact – a government may have to repay debt.[6] If a government incurred debt to finance the asset, public debt also increased – though, given the creation of the asset, the net worth of the government may not be affected. The positive net worth of the government depends on whether or not the present value of expected future primary surpluses equals or exceeds the value of existing public debt. If the present value of expected future primary surpluses falls short of the value of existing public debt, then at least some projects procured by the government will be unaffordable. Given that, in practice, budgeting occurs within a short planning horizon and very often without the detailed calculation of present values, governments use the rule of thumb that a project is affordable if the expenditure it implies for the government can be accommodated within current levels of government expenditure and revenue and if it can also be assumed that such levels will be sustained into the future.

Though in the case of a PPP there are various permutations of "design, build, finance, operate", a public-private partnership contrasts with public procurement in the following ways (Fourie and Burger, 2001:150-151; also compare panels A and B in Figure 3.1):

- The private partner usually undertakes the capital expenditure, meaning that the government has no capital expenditure. Furthermore, the private partner finances this expenditure through debt and equity.[7] Therefore, compared to public procurement, the capital expenditure of the government should be lower, while that of the private sector should be higher.

- The government may pay a fee to the private partner for the services provided. The private partner uses that income to pay operating costs and interest charges, as well as to repay debt. Alternatively, the private partner may impose a user charge on the direct recipients of the service (such as a toll in the case of a toll road). A combination of a fee paid by the government and a user charge is of course also possible. (It should also be remembered that a determining factor in deciding whether a project is classified as a concession or a PPP is whether a private operator receives the majority of its income from the fees paid by the government or from the user charges levied on the direct users of the service.) The fee that the government pays is classified as a current expenditure. Thus, compared to traditional procurement, the current expenditure by the government should be higher.

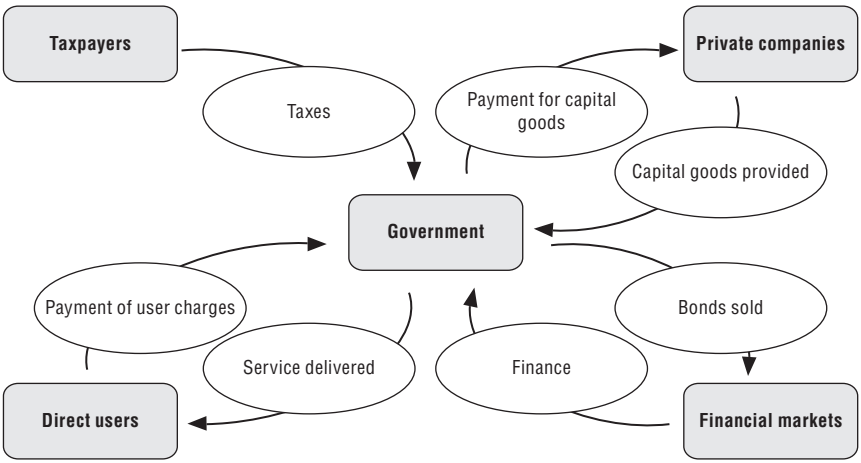
A public-private partnership can be said to be affordable if the present value of the future revenue stream of the government equals or exceeds the present value of the sum of expected future interest payments and the present value of the government's expected non-interest expenditure, while a portion of such future expenditure streams is allocated to such a PPP.[8] This definition, though technically correct, has one shortcoming: although PPPs and the public sector comparator used in PPPs involve detailed present value calculations over the whole life of a PPP contract, as mentioned above, governments rarely use present value calculations for the rest of their activities. Governments also rarely budget for a longer horizon than the upcoming year, although many also include a medium-term fiscal forecast that can be more or less binding. This raises the question of how to assess the affordability of a PPP in an environment where the planning horizon is not very long. As with other government activities in such an environment, a PPP project is affordable if the expenditure it implies for the government can be accommodated within current levels of government expenditure and

revenue and if it can also be assumed that such levels will be and can be sustained into the future. This working definition allows for the detailed use of present value calculations when estimating the cost of a public-private partnership *versus* that of traditional procurement (using a public sector comparator), but in an environment with a short planning horizon.

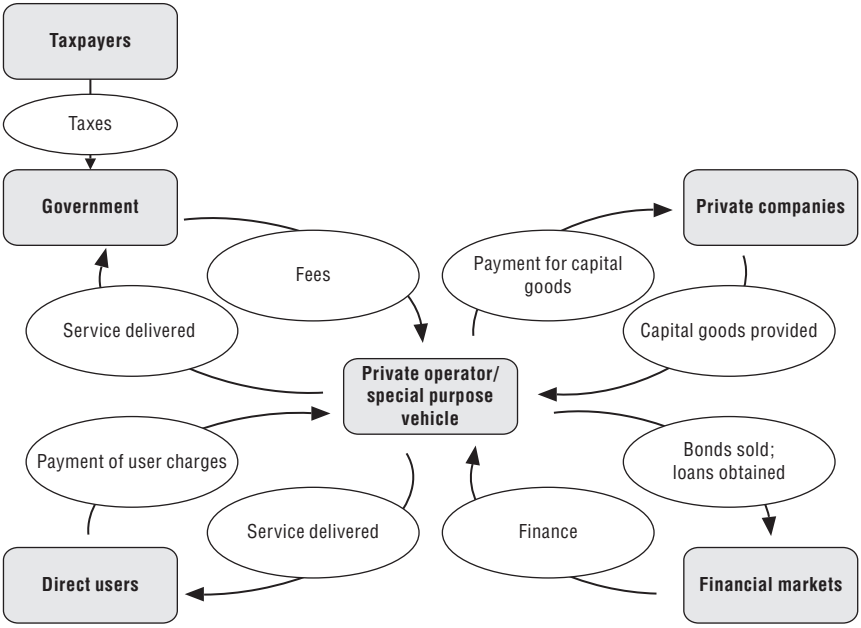
Given that a PPP implies a reduction of government capital expenditure, the short-term effect of a public-private partnership is to reduce total government expenditure and the budget deficit. In the long term, the future stream of fees and payments to the private partner must also be taken into consideration. When that is done, the PPP may not be cheaper in present value terms when compared to public procurement (as measured through the public sector comparator). Whether it will be cheaper will depend on the interest expenditure in the two cases (since the interest rate paid by the private sector usually exceeds that of the public sector) and on the relative levels of efficiency achieved in the two cases. Thus, if the efficiency gains are such that government derives more value for money through the public-private partnership than through traditional public procurement, the net present value of future revenue and expenditure streams might improve, thereby rendering the PPP project more affordable. Therefore, it can be argued that a public-private partnership is relatively more affordable than public procurement if it delivers more value for money. However, in both the case of public procurement and a PPP, absolute affordability depends on whether or not the stream of government expenditure can be accommodated within the intertemporal budget constraint of the government. Therefore, undertaking a public-private partnership because a project is not affordable if delivered through traditional procurement at best rests on a partial analysis that did not consider the affordability of the PPP route. This means that whether or not a project is affordable must be based on a comparative assessment of affordability for both the traditional procurement and PPP routes. (For a brief overview of how a selected group of countries ensure the affordability of PPP projects, see Box 3.1.)

Figure 3.1. The typical flow of services, payments for services and funding

A. In the case of traditional procurement



B. In the case of a public-private partnership



Box 3.1. What practices do countries follow to ensure affordability?

In a questionnaire sent by the OECD (see below) to key PPP officials in Australia (the State of Victoria), Brazil, France, Hungary and the United Kingdom, the officials were asked to indicate whether or not their government requires that government departments and entities demonstrate the affordability of PPP projects. The answer was that the requirement exists in all five countries, although there are differences in the methods of demonstrating affordability.

In Victoria (Australia) the decision about how a project is funded is separate from the decision about how it is delivered. Potential PPPs compete for limited budget funding along with all other capital projects (to ensure that all projects fall within the range that is considered affordable). Funding is approved on the basis of the preliminary public sector comparator (PSC) for the project (see section 2 in this chapter for a discussion of the PSC), thereby allowing a project to proceed under a traditional delivery method should private bidders not offer value for money. The PSC forecasts both the capital cost and the whole-of-life operating costs, discounted to a net present cost (NPC). Bids are measured against the PSC.

In Brazil, project studies must include a fiscal analysis for the next ten years. In addition, the commitment of the federal budget to PPP projects is limited by law to 1% of the net current revenue of the government.

In France, affordability is demonstrated by reference to the ministerial programme (a pluriannual indicative budgeting exercise) and not to the individual annual budgets of the departments.

In Hungary, starting in 2007, there is a limit on the amount of expenditure on PPPs within the budget, so each programme must fit within this limit. The use of budgetary limits on the total amount that can be spent on PPP projects also relates to the discussion in section 1.2 of this chapter on affordability and limited budget allocations.

In the United Kingdom, procuring authorities are required to complete an affordability model for any planned private finance initiative (PFI) project. The affordability model includes a sensitivity analysis. The procuring authorities complete these affordability models based on agreed departmental spending figures for the years available and on cautious assumptions of departmental spending envelopes in the future.

OECD Questionnaire on PPPs: Affordability and value for money

Governments often require that proposed affordability and value for money of the project should be demonstrated if the PPP route is to be taken. To better comprehend the information that governments require, this questionnaire asks questions on affordability and value for money. If information that is asked for is available on line, please add the relevant URL or web address to the answers or comments.

Box 3.1. What practices do countries follow to ensure affordability? *(cont.)*

Affordability

A PPP project is affordable if the expenditure it implies for the government can be accommodated within current levels of government expenditure and revenue and if it can also be assumed that such accommodation will be available in the future.

Question 1: Does your government require that government departments and entities demonstrate the affordability of PPP projects? (Yes, in all or most cases; Sometimes; No)

If Yes or Sometimes in Question 1: Given that the typical PPP is long term in nature, while budgeting rarely exceeds a three-year horizon, how do these departments and entities demonstrate affordability and what information must they submit when they demonstrate it? (Please specify)

Value for money

Value for money represents an optimal combination of quality, features and price, calculated over the whole of the project's life.

Question 2: In some countries, the government assesses value for money in the **pre-**contract phase of a PPP with a public sector comparator (PSC). Do PPP contracts contain performance measurement indicators that will be used to assess value for money once the contract is concluded? (Yes, in all or most cases [please comment]; Sometimes [please comment]; No)

Question 3: In addition to key performance indicators, do PPP contracts contain key performance benchmarks, *e.g.* target levels for the performance indicators? (Yes, in all or most cases [please comment]; Sometimes [please comment]; No)

Question 4: If PPP contracts contain performance measurement indicators, which of the following are typical?

- Efficiency measures in terms of inputs and outputs (*e.g.* the provision of a health service at the fee [if the government pays] or user charge [if the user pays] agreed with the government).
- Effectiveness measures in terms of outcomes (*e.g.* quantity, level of coverage of area or population).
- Service quality measures.
- Financial performance measures.
- Process and activity measures.

Question 5: In the typical case, how often must the private party or special purpose vehicle report its results to the government? (Never; Annually; Other [please specify])

Box 3.1. What practices do countries follow to ensure affordability? *(cont.)*

Question 6: How often is performance officially measured? (Never; Annually; Continuously; Other [please specify])

Question 7: If a private partner falls short on a key performance indicator in the case where the government pays a fee to the private partner, is the payment of the fee reduced in line with the extent to which it falls short? (Yes, in all or most cases [please comment if you want to qualify your answer]; Sometimes [please comment if you want to qualify your answer]; No)

If No or Sometimes in Question 7: What other incentives exist to ensure that the private partner performs?

1.2. Affordability, limited budget allocations, and legally imposed budgetary limits

The issue of affordability and hence the necessity for a government to operate within the boundaries of its intertemporal budget constraint should not be confused with fiscal rules, medium-term expenditure frameworks, or budgetary limits imposed either legally or as political commitments. For instance, in many countries there are limits on the extent to which second- and third-tier government authorities can borrow, with many cases where they cannot borrow at all. There are also countries with fiscal rules that limit government expenditure, deficits or debt. In the absence of such a limit, a government entity such as a local authority might have been able to borrow to finance a traditionally procured project and service the debt with its expected future revenue flows. As such, the project and the borrowing it implies might be affordable, even though the legally imposed budgetary limit prohibits borrowing. A further example refers to the budgetary allocations of government departments and authorities, where such allocations are made from a central budget. A department, for instance, must fit its expenditure plans within its expected future budgetary allocations.[9] This means that, even if the addition of a traditionally procured project would not violate the intertemporal budget constraint of the overall government, such a project may still exceed the future expected budgetary allocations of a specific government department. There are three cases where such budgetary limits create an incentive to get a project "off the books" by using a PPP. Governments should be aware of these cases, since the incentives to get these projects off the books have little to do with the potential for increased value for money that public-private partnerships may offer and, as such, may cause projects to offer less VFM compared to traditional procurement.

The first case is when a project cannot be delivered through either traditional procurement or a PPP within budgetary limits. This case has three features, but a short-run focus on the first and a disregard for the second and third by the government creates the incentive to take the PPP route (even when the PPP is also not affordable):

- If traditional procurement is used, the large initial capital outlay will cause a government entity (such as central government, a government department, or a regional or local authority) to exceed its allocated budget. Given an imposed budgetary limit or a limited budget allocation from the central budget, such an entity does not currently have the funding to finance the project and might thus think that by using private sector financing, the project can be pursued.
- If such an entity then decides to take the PPP route, it may not be able to make future fee payments to the private partner without exceeding its expected future allocated budgets.[10]
- In addition, the private partner also cannot impose a user charge on the direct users of the service. The combination of these three features means that the project should not be undertaken even if the addition of the project is affordable in terms of the total (intertemporal) budget of the government and even if the project represents value for money.

The second case shares the same features with the first, with the exception that instead of receiving a fee from the government, the private partner can impose a user charge directly on the users of the service.[11] In this case, any person accessing the service might suffer an increase in the tax-plus-user charge burden. Therefore, due to budgetary or other limits and limited budgetary allocations, a government entity might not be able to pay partially or in total for the initial capital outlay (in the case of traditional procurement) or future service fees (in the case where a PPP entailed the payment of fees by the government to the private partner). However, if users can pay a user charge, the project might fit within the budget allocation of the government entity. It might also be affordable from a social perspective if the increase in the tax-plus-user charge burden of those individuals benefiting from the good or service is acceptable and fits within their intertemporal budget constraints.

The third case occurs when a government operates under a fiscal rule that sets a limit on the government's overall fiscal balance (*e.g.* requiring the government to balance its budget or run deficits not exceeding, say, 3% of GDP, like the requirements for EMU countries under the Stability and

Growth Pact). Unlike the private sector, where operating surpluses and profits are always defined as the difference between current revenue and cost flows, deficit limits imposed on the government are usually defined (but of course need not be) in terms of the conventional rather than the current deficit. The conventional deficit is the difference between total income and expenditure flows. Given the bulky nature of large infrastructure capital outlays, the result might be that the large financial size of capital projects may contribute to breaking the budget deficit limit in the year in which the government undertakes the outlays. Should the project be completed in terms of a PPP, instead of traditional procurement, the private sector will be responsible for the initial bulky capital outlay. The government will then (in the absence of user charges), on a regular basis and as part of its current expenditure, pay the private partners a fee for services delivered. In addition, the government might be able to do so without exceeding the deficit limit. Thus, although the government might not have been able to fit the bulky capital outlay into its budget without breaking the deficit limit had it taken the public procurement route, it might nevertheless be able to fit the future payment of fees to a private partner into its budget without exceeding the budget limit. The incentive is thus created to build the asset through a public-private partnership. Note, however, that – although such a partnership would be affordable, strictly speaking – the reason for preferring the PPP route would be because of the budgetary limit problem and not because the project represents value for money.

Thus, PPPs can allow the government and government entities to undertake projects that are affordable in terms of the overall intertemporal budget constraint of government, but cannot be undertaken through traditional procurement because of the existence of budgetary limits, fiscal rules or limits to the budgetary allocations of entities from a central budget. In such a case, value for money is not the only thing that a government or government entity should consider when deciding whether or not to take the PPP route. Moreover, since failure to get a project "off the government books" may imply that the government cannot undertake the project, the danger exists that the drive to get the project "off the books" might be strong enough to cause the government to ignore or neglect the VFM considerations. In many countries that use public-private partnerships, this has been the case. Indeed, where a value for money assessment using a public sector comparator is made to compare PPP service delivery to traditional procurement and where it is made in the face of legally imposed limits and budgetary allocations that in effect preclude traditional procurement, the VFM assessment is compromised. It may even lead to a wrong assessment. Thus, value for money should receive more attention when PPPs are undertaken because of budgetary limits and budgetary allocations that preclude traditional procurement.

1.3. The role and nature of risk

Risk plays a fundamental role in the success of a public-private partnership. Indeed, whether or not an activity is deemed to be a PPP or traditional procurement primarily depends on who bears the bulk of risk. The key to understanding the role of risk in a public-private partnership is the link between the carrying of risk and the efficiency of the project. As mentioned above, the main rationale to enter a PPP agreement is the possible improvement in service delivery and efficiency by the private partner relative to what traditional procurement can deliver. In terms of economic theory, a distinction should be made between three kinds of efficiency: allocative efficiency *(i.e.* the use of resources so as to maximise profit and utility), technical efficiency (*i.e.* minimum inputs and maximum outputs), and X-efficiency (*i.e.* preventing the wasteful use of inputs) (Fourie and Burger, 2000:697). The decision by a government to deliver a service in the first place, irrespective of whether this is done through traditional procurement or a public-private partnership, involves allocative efficiency. Once a decision about delivery is made, the government must decide on the mode of delivery: to deliver it either through traditional procurement or through a PPP. The choice largely involves considerations about technical and X-efficiency.[12]

Though the finding cannot be generalised to other countries, Hodge (2004:38) – citing United Kingdom studies indicating that government departments that implemented PPPs registered cost savings of between 10% and 20% – argues that private sector participation brings improved efficiency. In addition, according to the 2002 census of the United Kingdom National Audit Office (NAO), only 22% of PFI deals experienced cost overruns and 24% experienced delays, compared to 73% and 70% of projects undertaken by the public sector and reviewed in an NAO survey in 1999 (NAO, 2003:3). Furthermore, HM Treasury (2006a:53) reports that, according to a study for the Scottish Executive by CEPA (Cambridge Economic Policy Associates), 50% of authorities administering PPPs reported that they received good value for money, with 28% reporting satisfactory value for money. On the side of the private operators, 59% of respondents in the KPMG survey among private project managers reported that the performance of their projects in 2006 was very good, compared to 49% in 2005 (KPMG, 2007:12). A further 36% thought that the performance was good, with no one thinking that it was less than satisfactory. KPMG (2007:13) also reports that 83% of United Kingdom PFI projects made a profit, with 70% having made a profit in each year of their operation (though 38% made less profit than expected). A report to Infrastructure Partnerships Australia by the Allen Consulting Group (2007:1) compared 21 Australian PPP projects with 33 traditionally

procured projects. The study found AUD 58 million of overruns on PPP projects with a value of AUD 4.9 billion. These results compared favourably to the AUD 673 million overruns on traditionally procured projects with a value of AUD 4.5 billion. The report further found that the PPPs were completed 3.4% ahead of time, compared to traditionally procured projects that were completed 23.5% behind time (Allen Consulting Group, 2007:1).

All these numbers for Australia and the United Kingdom suggest that PPPs perform better than traditional procurement. A note of caution is nevertheless in order: when government departments identify projects for delivery through PPPs, they may pick projects where they are more assured of achieving value for money, *i.e.* projects that are expected to cause fewer technical difficulties or other problems. Had these projects been delivered through traditional procurement, their performance in terms of creating value for money would also have been above the average of all traditionally procured projects. Thus, identifying projects suitable for delivery through the PPP mechanism may be a case of only choosing the "best" ("cherry picking"), in which case a comparison between the performance of PPPs and traditionally procured projects might be biased in favour of the PPPs. Also, one has to bear in mind that these are relative comparisons with traditional procurement or government in-house production and, as such, do not mean that PPPs are automatically the most efficient way to deliver services. Thus, the choice concerning the mode of production should be made on a project-by-project basis and, more specifically, on the basis of each project's merits.

Notwithstanding this possible bias, there is still a strong argument that having a private partner may improve value for money. Merely having a private partner to deliver the service is not a sufficient condition to ensure an improvement in service delivery. To achieve such an improvement, there must be sufficient risk transfer to the private partner (Corner, 2006:44). Stated differently, if a mere agreement cannot ensure action to improve value for money, then failure to transfer risk will result in inaction. Indeed, according to the Arthur Andersen and Enterprise LSE study (2000:7), 60% of cost savings in the PFI projects examined took place as a result of risk transfer; in six of the 17 cases examined, value for money depended completely on risk transfer.

Risk, sometimes called measurable risk, is defined as a case where there is a range of possible outcomes that are each associated with an objectively (*i.e.* statistically determined) or subjectively ascribed numerical probability.[13] Formally, risk is defined as the measurable probability that the actual outcome will deviate from the expected (or most likely) outcome. If sufficient data are available, the probabilities involved can be estimated statistically. Alternatively, based on experience, subjective numerical probabilities can be ascribed to the various possible outcomes.[14] In normal

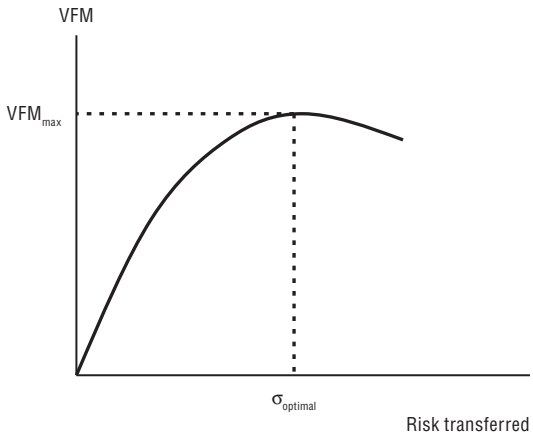
everyday private sector activity that does not involve the government, risk drives companies to be technically and X-efficient. In other words, companies attempt to manage and influence the factors that may cause actual outcomes to diverge from expected outcomes. These factors include anything that may cause costs to escalate beyond projections or revenue to fall short of projections, both causing profits to fall short of projections. For instance, financial risk sharing gives private companies an incentive to finish projects on time and within budget, to improve efficiency, and to provide a more accurate forecast of expenditure. A government is not profit driven, which means that, according to conventional understanding, the government does not have the same motivation as the private sector to be efficient. Thus, by concluding a PPP agreement, a government may wish to harness the efficiency motivation of the private sector for public service delivery. The ability of the private sector to improve efficiency may also result from the private sector being skilled and equipped with better management capacity. Such capacity is required to operate large and complex projects, which PPPs usually are.

Achieving value for money depends on the ability of the public and private actors to identify, analyse and allocate risks appropriately. The failure to do so translates into financial costs. Good risk management allocates risk (and the different types of risk) to the party best able to manage it. Though this sounds like a straightforward statement, it may generate questions such as the one raised by Leiringer (2006:306) as to whether the party best able to manage the risk is the party that has the largest influence on the probability of an adverse occurrence happening or the party that can best deal with the consequence after an adverse occurrence. This confusion calls for a clearer definition of what is meant by "the party best able to manage the risk". Corner (2006:46) provides such a definition by stating that to best manage risk means to manage it at least cost and thereby reduce the long-term cost of the project. This interpretation helps to solve Leiringer's dilemma: if the cost of preventing an adverse occurrence is less than the cost of dealing with its consequences, then risk should be allocated to the party best able to influence the probability of occurrence, be it the government or the private partner.

Allocating risk to the party best able to manage it does not imply that the maximum risk is transferred to the private partner. Indeed, as Figure 3.2 shows, insofar as value for money and efficiency are concerned, one might argue that there is an optimal allocation of risk between the government and the private partners. Designing the optimal level of risk sharing – including the respective level of fees *versus* subsidies – involves complex tradeoffs, and the optimal contract may depend on the specific circumstances of the project (Engel *et al*., 2007). In addition, there are different degrees of risk

allocation involved in the various permutations of PPP contracts (see Figure 3.3). For instance, design-build-operate-maintain-finance contracts involve more risk than design-build contracts. With the addition of each activity to the responsibilities of the private partner, the question is whether or not the private partner is the best party to manage the risk involved with the additional activity.

Figure 3.2. Principles of optimal risk transfer



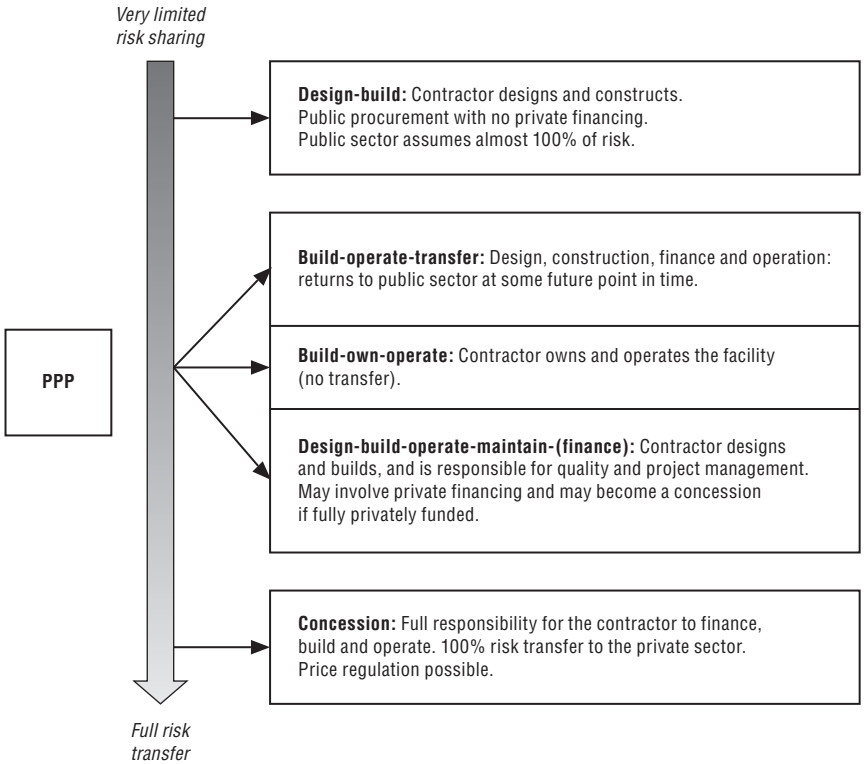
VFM = value for money

Risk profiling for public-private partnerships poses a particular problem because PPP projects generally involve infrastructure developments that are much more complex and distinct from other projects. This complexity derives from the various funding sources used in special purpose vehicles and the extremely long period over which the project must yield its return (*cf.* OECD, 2006a, 2006c and 2007a). Some specifics that make large infrastructure projects distinct from typical investment include (OECD, 2006a:25-26):

- High capital costs and low operating costs are combined. This causes debt service and financing costs to constitute a large proportion of total expenditure.
- Construction periods are long, while the build-up of revenue is often slow.

- The cash flow of the project plays a key role in the return to equity and in the provision of security to the lenders (if no public guarantees were given).

Figure 3.3. Degrees of risk sharing by project type



Note that these specifics in many instances also explain why involving the private sector often represents a challenge. Risk profiling encounters a further complication when taking account of uncertainty as distinct from risk. Uncertainty, also called immeasurable risk, should be distinguished from measurable risk (Fourie and Burger, 2000:705-706; Grimsey and Lewis, 2005:368-370). Uncertainty is defined as a case where measurable objective or subjective probabilities cannot be calculated and ascribed to the range of possible and foreseeable outcomes. Prior experience or research might, but not necessarily, allow the government and possible private

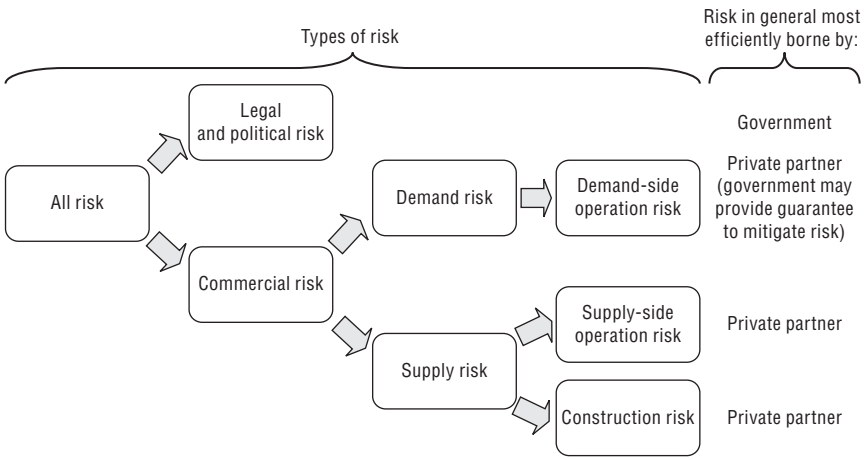
partners to state expected, worst case and best case scenarios and ascribe subjective, ordinal (non-numerical) probabilities (such as "likely" or "very unlikely") to each scenario. Such ordinal probabilities depend less on information and more on enlightened guesswork ("guestimates") than in the case of measurable risk. Unique, one-off projects usually contain more uncertainty. However, all projects may contain elements of both risk and uncertainty since most projects might be affected by events whose probability cannot be measured. Examples include events such as 11 September (*i.e.* the probability that two planes, hijacked by terrorists, will fly into two neighbouring buildings is not statistically measurable, and there is also no sound foundation on which to ascribe subjective numerical probabilities to it). Other examples would include natural and other disasters (*i.e.* the Asian tsunami or the wildfires in Greece in 2007) and the possibility that new technology might appear that renders existing technology redundant. In discussing the finding by PricewaterhouseCoopers (2002) that the internal rate of return on the 64 projects studied exceeded the cost of capital by an average of 2.4 percentage points, Grimsey and Lewis (2005:369) note that a part of this excess (up to a possible 0.7 percentage points) might be a margin for uncertainty.

When deciding on the allocation of risk, a distinction should be made between endogenous and exogenous risks (risks one can and cannot control). The type of risk that is the driver of efficiency in a PPP is endogenous risk (since exogenous risk, by definition, cannot be controlled). Exogenous risk is carried by the government or shared by the partners. However, should a government require that the private partner carry some of the exogenous risk, the private partner may require a premium for doing so. Given that the risk is exogenous, the government will not be getting better risk management from the private partner than what it could obtain if it carried the risk itself. This is an example of how the allocation of risk to a party who cannot manage it leads to higher cost and thus less value for money (see also Corner, 2006:46-47, for a related argument). Since the public sector is better able to absorb certain kinds of risk (such as political risk, see below), a marginal increase in the amount of such risks carried by the government would constitute a marginal increase in the incentive to the private partner. Thus, the optimal risk-sharing point equals the point where the marginal cost of the increase of public sector risk absorption equals the increased marginal benefit of private sector involvement (Dewatripont and Legros, 2005).

Identifying the different types of risk is a varied art that differs between practitioners.[15] Risks can be divided into two types (see Figure 3.4): commercial risk[16] *versus* legal and political risk. The private sector is generally better suited to assume commercial risk, while the public sector is

better suited to assume legal and political risk. The latter group relates to, among other things, the legal framework, dispute resolution, the regulatory framework, government policy, taxation, expropriation and nationalisation. Commercial risk can be divided into supply and demand risks. Supply risk concerns mainly the ability of the private partner to deliver. Supply risk can, in turn, be sub-divided into construction risk and supply-side operation risk (where construction and operation constitute the two phases of the project). Construction and supply-side operation risks encompass the availability and costs of input and labour, technical and production process risks, residual value risk and risk associated with technological redundancy. In addition, construction and supply-side operation risks include financial market risk stemming from, among other things, changes in the cost of capital as well as changes in exchange rates and producer inflation.

Figure 3.4. The categorising of risk



Demand risk encompasses mainly demand-side operation risk and arises, among other things, from changes in consumer preferences, the emergence or disappearance of substitute or complementary products, import competition, and changes in income and demographics. In addition, demand risk may also include financial market risk stemming from, among other things, changes in interest rates, exchange rates and consumer inflation.

Box 3.2. The classification of risks

Merna and Smith classify risks as follows:

Global risks ("force majeure"): risks that are normally outside the project package and that are generally not controllable by the project participants, such as natural disasters, wars and civil disorders.

Elementary risks: risks that are within the control of the project participants. Elementary risks are divided into five categories:

- Political risks: either associated with the increase of sovereign powers of the host country or due to certain country-specific situations.
- Borrower's credit risks: associated with the creditworthiness of the special purpose vehicle created for the implementation of the project.
- Sponsor's credit risks: associated with the change of credit rating of the sponsor company.
- Sovereign risks: associated with the change of the sovereign credit rating which may affect the viability of the project.
- Project risks, which can be classified into four types:
  - Completion risk: risk of delay in completion of a project.
  - Operation and maintenance risk: risk that the project is unable to run at the desired efficiency due to deficiencies in labour and capital.
  - Input and output risks: risk of an inadequate, sub-quality and inconsistent supply of raw material and other utilities; the risk of inadequate demand for the output of the project.
  - Financing risk: risk related to an increase in the servicing cost of money raised for the project, the risk of exchange rate fluctuations, etc.

Source: Merna, T. and N. Smith (1996), "Projects Procured by Privately Financed Concession Contracts", Vols. 1, 2, *Asia Law and Practice*, Hong Kong, China.

As the discussion below will indicate, the distinction between supply and demand risks is important since the presence of externalities and the public good nature of some goods create demand risk (and even uncertainty) due to the "free rider" problem. The extent of demand risk might be such that a private operator is unwilling to deliver unless the government (and not the direct recipient) remunerates it for its services. However, this might eliminate demand risk as a driver of efficiency and only leave supply risk.

An example is a highway project that connects the new Incheon International Airport in Korea to major cities in the capital region (OECD, 2006a:43 and 46). The public sector assumed a disproportionately large percentage of demand risk through the minimum revenue guarantee scheme that allowed the government to subsidise up to 90% of projected operating revenues for solicited projects, and 80% for unsolicited projects.[17] As a result, the project corporation annually received KRW 100 billion in subsidies, prompting a rebuke from the Korean Board of Audit and Inspection. Normally, demand risk is assumed by the private sector. However, predicting future demand is a difficult task, as it is often affected by unpredictable social and economic factors. Hence the Korean minimum revenue guarantee scheme plays a role in the event of actual demand falling below the original forecast (OECD, 2006a:46).

The identification of risks, as well as their allocation, must be followed by their pricing. However, as highlighted by the IMF (2004:13-14), the public and private sectors use different market risk pricing methodologies. The government usually uses the social time preference rate and other risk-free discount rates for project appraisals, whereas private firms tend to include higher discount rates to reflect the higher risk premiums to which they are subject. As a result, sound private sector proposals that have a higher potential for efficiency may be unnecessarily dismissed. Even after the private bidder is chosen, the discrepancy in public and private cost appraisal would result in inefficient resource allocation (IMF, 2004:13-14).

Once the risks and their potential impacts are identified, actors work to counter the risks that they are able to manage (*i.e.* the endogenous risks). The tools of risk mitigation are varied and include contractual arrangements, insurance, export credit agency guarantees, political risk insurance, and employment of financial derivatives. There are five major types of response (OECD, 2006a:26-27):

- Risk avoidance, whereby the source of risk is eliminated or is altogether bypassed by avoiding projects that are exposed to it.
- Risk prevention, whereby actors work to reduce the probability of risk or mute its impact.
- Risk insurance, whereby an actor buys an insurance plan – a common form of financial risk transfer.
- Risk transfer, whereby actors relocate risks to parties who can best manage them.
- Risk retention, whereby risk is retained because risk management costs are greater.

PPP risk sharing in practice poses a difficult challenge to PPP implementation, especially for contracting and accounting practices (discussed below). According to the IMF (2004), the major issue lies in the distinction made between the legal and economic ownership in contracts that do not accurately reflect the actual risk-sharing arrangement. For example, a private firm operating an asset is normally considered the legal owner by contract. However, if the government bears most of the risk (such as demand risk), it is the economic owner of the asset. This is a crucial distinction not reflected in the legal contract. This dilemma becomes especially problematic in the contracting of leasing arrangements (IMF, 2004).

1.4. The level of competition

As discussed above, risk drives companies to be technically and X-efficient, *i.e.* to manage and influence the factors that may cause actual outcomes to diverge from expected outcomes. As shown, these factors include anything that may cause costs to escalate beyond projections or revenue to fall short of projections, both causing profits to fall short of projections. This section argues that competition is a key factor to ensure the effective transfer of risk. In its absence, the government effectively carries the risk, irrespective of the conditions set out in the PPP contract. When a provider is a monopolist (thus when competition is absent) and not giving value for money, consumers have little choice but to buy from the monopolist. The monopolist may then be able to charge a higher uncompetitive price and also pass along the costs that result from technical and X-inefficiency. The monopolist may also provide a good whose features do not comply optimally with what consumers want. In contrast, with competition, under the assumption of perfect neoclassical markets, companies know that consumers can at any time go to a competitor to get a combination of quality, features and price that comes closer to the optimal combination that they desire. This consumer power enlarges the impact on profitability of the various supply and demand risks highlighted above and thus increases the urgency with which companies will need to manage these risks if they want to maximise their profits. In the absence of competition, the government has no options between providers if it wants to take the PPP route, particularly for large infrastructure projects involving significant sunk costs. A single potential private partner who knows this might take advantage of its monopolistic position, thus reducing the efficiency with which it delivers the service. A reduction in efficiency will reduce or even eliminate the benefit of a public-private partnership relative to traditional procurement.

In the context of PPPs, competition is important in both the pre- and post-contract phases. In the pre-contract phase, competition should take

place in the bidding process where it is also called "competition **for** the market". Competition in the delivery of the service in the post-contract phase is also called "competition **in** the market". Knowing that there are several bidders might cause the potential private partners to be as efficient as possible in their project designs and thereby ensure that they promise to deliver value for money to the government. The presence of too few bidders is a real danger in PPP bidding. For instance, in his study of 86 recent United Kingdom PPPs that were all at the tender stage, Zitron (2006:54) reports that there were on average three bidders for each PPP contract. However, in a quarter of these 86 PPPs there were less than three bidders, thereby increasing the danger of opportunistic (monopolistic) behaviour by the bidders. In the absence of competition, *i.e.* in the event of a single bidder, the government can use the second-best option of letting the bidder bid against a public sector comparator (PSC). In this case, the potential private partner does not have the incentive to maximise efficiency, which is what competition would require, but only to increase efficiency by the amount needed to outperform the PSC. (Given the inefficiency of some governments in some countries, this might not be too difficult.) An alternative would be to suggest that, if sufficient past data are available, a benchmark established by past best practice can be used. If there are so much data available from the performance of private companies in related PPPs to allow the establishment of a benchmark, then the likelihood of only one bidder appearing is rather remote. Therefore, there is no good substitute for real competition to ensure that risk has an effect on the profitability of the private partner and, as such, forces the partner to minimise the risk by being efficient.

Although too few bidders mean that value for money is not attained, too many bidders mean that the probability of being the preferred bidder is small (Zitron, 2006:54). Given the cost of participating in bidding for a project, this in turn may cause strong potential private partners not to bid, even if the project itself and the risks that it entails are acceptable to them (Zitron, 2006:59; also see Bloomfield, 2006:402). Thus, Zitron (2006:59) argues that a distinction should be made between bidding risk and the risk of the project itself. Furthermore, the probability of not being the preferred bidder becomes more pressing the higher the bidding costs. Since bidding costs increase as projects become more complex, and since the room for efficiency gains in simple projects is smaller than in complex projects, the paradoxical situation may exist that there is less competition for projects where there are potentially the largest efficiency gains to be made. The lack of competition may then result in failure to realise those efficiency gains.

Competition in the post-contract phase is also a complex issue. In many instances, once a preferred bidder is announced and the contract is signed,

the unsuccessful bidders move on, with some even leaving the industry within which the project falls. Examples may include private prison or toll road PPPs which might not have very deep markets. Thus, once the contract is signed, the preferred private partner with whom the contract is concluded becomes a monopolistic supplier. Should the need arise to renegotiate the terms of the contract after its conclusion, a monopolistic supplier has an advantage compared to a supplier in a competitive market. A monopolist might also be more prone to argue that there is a need to renegotiate the terms of the contract. In addition, public-private partnerships are usually long-term contracts. Compared to a short-term arrangement, long-term contracts may encounter more unforeseen events, and thus the need to renegotiate aspects of a PPP contract is nothing out of the ordinary (*cf.* Chong *et al.*, 2006:522 and 528). Renegotiation with a monopolistic provider then often leads to uncompetitive pricing and behaviour that will reduce the risk of the private partner and thus undermine the impact on efficiency of the transfer of risk. Therefore, a lack of post-contract competition undermines the value for money of a public-private partnership relative to traditional procurement. (A related issue concerns the financing and refinancing of PPP projects; see Box 3.3.) However, the absence of competitors is not necessarily a problem, provided that the market is contestable, *i.e.* even if a private partner is a monopolist, it will not behave opportunistically if it knows that there are potential entrants into the market.

Chong *et al.* (2006) studied competition and contestability in the post-contract phase of concessions/PPPs for water delivery in the case of 1 102 local French authorities.[18] More specifically, they tested for what they called a competition effect and a termination effect (Chong *et al.,* 2006:533). The competition effect states that water prices charged by private operators will be lower in the geographical zones where there are more potential competitors or where it is easier for the local authority to deliver the service itself (so that the private operators also compete with the local authority). The termination effect states that water prices will be lower the closer the contract is to renewal or to any pre-agreed moment for renegotiation. Thus, the closer a contract comes to renegotiation, the more willing a private partner will become to reduce its price and thereby enhance its chances of being reselected.[19] The rationale for the termination effect is that the further the contract is from renegotiation, the larger the sum of the future benefits that might result from opportunistic behaviour in the form of higher uncompetitive prices (Chong *et al.,* 2006:530-531). A further rationale is that the closer the contract is to renegotiation, the higher the present value of the possible renegotiated contract relative to the present value of the benefits stemming from opportunistic behaviour (Chong *et al.,* 2006:531). Chong *et al.* (2006:523) found evidence for the competition effect between the local authority and the private operators, but no evidence for the competition

effect among private operators. In addition, Chong *et al.* (2006:523) found evidence for the termination effect. Thus, there is evidence in this particular study that monopolistic behaviour in a PPP can lead to higher prices.

Box 3.3. Financing and refinancing of public-private partnership projects

In a paper dealing with infrastructure public-private partnerships, Estache *et al.* (2007:3) report that, as the nature of PPPs develops, so do the level and types of financing used in PPP contracts. Given that – in many PPPs – the project is contained in a special purpose vehicle, the preferred form of finance is very often project finance. Estache *et al.* (2007:6-7) report that governments usually use project finance when a project has a large capital outlay and when the project and its assets are long-term in nature, requiring long periods over which to amortise investment costs and to generate returns for creditors and shareholders. However, finance is not limited to project finance. Other forms of finance used in PPP contracts include equity, mezzanine finance, commercial lending and bond finance (Estache *et al.*, 2007:7). Estache *et al.* (2007:3) also report that projects often suffer from problems regarding their finance. These problems include:

- Best-case scenarios of revenue and activity that is presented as the baseline case.
- Lack of attention to the project evaluation, which leads to larger amounts of debt in projects.
- Long-term projects that are undertaken with short-term debt, coupled with a sometimes unjustified assumption that the short-term debt can be rolled over at the same or even better refinancing conditions.
- Floating rate debt that creates interest rate risk.
- Projects undertaken in local currencies, but with debt dominated in foreign currencies (and the related problem of balance sheets where the asset and liability sides are denominated in different currencies).
- Governments not properly considering the allocation of risk and ignoring the potential for renegotiation.

Refinancing can also create unforeseen benefits for the private operator, in which the government might not share if the contract does not explicitly provide for this possibility. For instance, if the private partner refinances a project at an interest rate much lower than the rate that forms the basis for the fee paid by the government, the private partner will pocket the difference as windfall profit. Therefore, contracts should include a provision that allows the government to share in such benefits.

Source: Estache, A., E. Juan and L. Trujillo (2007), "Public-Private Partnerships in Transport", *Policy Research Working Paper 4436*, The World Bank, Washington DC.

Therefore, one may conclude that, while risk transfer is the driver of efficiency, competition and contestability ensure effective risk transfer. Thus, whether or not a PPP represents value for money depends on both sufficient risk transfer and competition. In the absence of competition or potential entry, it will be difficult to attain higher efficiency and value for money.

1.5. The nature of the service

Governments typically provide a long list of goods and services. What is further notable is that the level of variation in these services is much larger than the variation observed in the list of goods and services delivered by the typical private company. In addition, some of the goods that governments deliver are public goods, others have externalities, while yet others are pure private goods (*i.e.* without externalities). The nature of the services that governments deliver also differs in the degree of their complexity. Some are very complex goods, while others are relatively simple. Thus, it comes as no surprise that negotiating PPP contracts may not be a simple task, with the issue of contractual flexibility a major issue in long-term contracts. The discussion that follows considers some of the ways in which the nature of the services that governments deliver affects PPP contracts.

1.5.1. General interest goods

In most if not all countries, the government is involved in the delivery of goods that, according to Chong *et al.* (2006:524), possess general interest attributes. Standard public finance theory classifies these goods as public goods and goods with externalities. These goods suffer from the "free rider" problem. Demand is not fully revealed, making it difficult for private companies to estimate the future demand for such goods. As a result, goods such as those supplied through social infrastructure are undervalued by the private sector (IMF, 2004:4). Therefore, the government may need to estimate the full social demand so as to either supply the good itself or to inform a private producer who then supplies the government.[20] Through this action, the government is supposed to improve the allocative efficiency of the goods or services delivered. If the government uses a private producer to deliver the good or service, it usually pays the private operator a fee per unit delivered, while the government also states the amount it wants delivered. Alternatively, the government complements the user charge levied by the private operator, to ensure a higher level of delivery. These actions reduce the demand risk significantly.[21]

Thus, because the overall risk of the contract may already be much reduced because of such a lower demand risk, the choice between delivering a public good (or a good with an externality) through a PPP or by a government itself depends first on the ability of the government to transfer sufficient supply risk to the private operator and, second, on the level of competition or contestability facing a private operator (Grimsey and Lewis, 2005:347; Hodge, 2004:39-40; Fourie and Burger, 2000:708-714). These two conditions ensure that the private operator's behaviour is technically and X-efficient. In the absence of these two conditions, private sector delivery may not necessarily be more efficient, whereas its costs – such as interest costs and the profit that must be paid to shareholders – may cause the cost of delivery through a PPP to exceed that of government delivery (*cf.* Fourie and Burger, 2001:159-160; and Grimsey and Lewis, 2005:351).

Nevertheless, efficiency is not necessarily the only reason for using a public-private partnership. Even if the service is not a general interest good but a private good (meaning it has no externality), a PPP can be preferred to both traditional procurement and full-blown privatisation. This preference occurs when effectiveness, in addition to efficiency, is also an aim of government policy. Effectiveness becomes important with issues such as equity where poverty levels prevent the poor or financially less well-off from making an effective demand for a service even when their need is large (*e.g.* electricity supply to poor and remote areas in developing countries, or the provision of expensive medical procedures in any country). The effectiveness issue may also arise in cases where, according to public perception, the government is the party expected to deliver a service. Another case where government can consider using a public-private partnership occurs when the sunk cost associated with delivery is considered too big by the private sector for it to be the only party responsible for delivering the service (IMF, 2004:4). Through the PPP contract and the per unit amount it pays to the private operator, a government can ensure that the right level of service is delivered (hence the decision not to privatise, since a privatised entity can decide, on grounds of profitability, to deliver less), while also improving efficiency through private sector involvement (hence the decision not to rely on traditional procurement).

If effectiveness is not just a policy aim in addition to efficiency but becomes the overriding criterion (meaning that it overrides efficiency concerns), the government may decide not to use a PPP to deliver the service. This occurs when the delivery of the service in question is so important to the public interest that the government does not want to run the risk of a private operator failing in delivering the service (Flinders, 2005:232; Fourie and Burger, 2000:718; IMF, 2004:22; Corner, 2006:49; Estache, 2006:13). These services may be said to have an "inelastic social

demand". In addition, effective risk transfer in a PPP in the case of a service with an inelastic social demand is undermined if the private partner knows that – because the delivery of the service is so important – the government may be forced to bail it out should it fail financially. This situation creates a moral hazard problem that prevents the effective transfer of risk, even though the PPP contract states that risk has been transferred to the private partner. The exception would be if, in the case of financial failure, the private financer has step-in rights. Corner (2006:50) suggests that PPP contracts should be structured such that if a private operator fails, there is an incentive for the financer to step in and either assist the operator to reverse the failure or replace the operator. When a private partner fails and no replacement can be found, the moral hazard problem is also absent or much smaller if the government can take over the asset as a running concern. Notwithstanding these possibilities and incentives, if effectiveness is an overriding concern, a public-private partnership is not necessarily the best option.

Related to goods with an inelastic social demand, some services form part of what is traditionally considered the core functions of government, such as defence, law and order, and diplomatic services. Because of ethical or other reasons, a government is expected to deliver these services, which means that they are not contractible (IMF, 2004:11; Malone, 2005:421). Even though a function such as delivering judgment in criminal cases or defending the border is not typically performed by the private sector, a government need not necessarily undertake the building and maintenance of court buildings or the production of military equipment (IMF, 2004:11). Thus, even if the core aspects of law and order or national defence are not contractible, some ancillary services might be.

1.5.2. Complex services and contracts

Because PPP contracts include the carrying out of due diligence by advisers to ensure that all parties can deliver value for money, a PPP contract usually takes longer to close than a traditional procurement contract (HM Treasury, 2006a:20). The complexity of negotiating a public-private partnership may generate substantial transaction time and costs that could cancel out the purported benefits of a PPP and that might be much higher than in other forms of delivery. For instance, in a review of 42 United Kingdom projects in health, education and civil engineering, Ahadzi and Bowles (2004:967-968) noted that there were excessive time overruns in the pre-contract stages which in turn resulted in large advisory cost overruns. Of the projects with time overruns, 98% had overruns of between 11-166%. The overruns for schools projects were the highest and those for civil engineering projects the lowest. Ahadzi and Bowles also found that total

negotiation time scales were high (some even close to 50 months). In addition to pre-contract time overruns, there were also substantial pre-contract cost overruns which ranged between 25-200% and were due to the continued retention of advisors by the government and the private parties during negotiations. Ahadzi and Bowles (2004:971) also noted that, probably as a result of the central procurement of civil engineering projects, the cost and time overruns of these projects were the lowest.

The time that it takes to negotiate a contract in the United Kingdom has received the attention of the government. HM Treasury (2006a:21) reports that, while the average time to conclude a contract (*i.e.* the time it takes from initiating the project till the conclusion of the contract) was 29 months in 2003, it decreased slightly to 27 months in 2005. In addition, the proportion of PPP projects for which the time to conclude a contract is between 0-18 months increased from just below 10% in 2002 to above 30% in 2003. Furthermore, 50% of the projects advertised in the *Official Journal* of the European Union in 2003 were closed within 24 months compared to only 26% in 2000 (HM Treasury, 2006a:21). HM Treasury takes this as tentative evidence that the reforms made earlier to improve the contract conclusion process may be successful, though it also acknowledges that the time to close a contract remains unnecessarily long.

According to Ahadzi and Bowles (2004), pre-contract time and cost overruns in the United Kingdom result mainly from the differing views of the government and the private sector about the comparative importance that each attaches to communication and to the ability and willingness of private parties to accept risk. Ahadzi and Bowles (2004:972-976) argue that, in the United Kingdom, the government attaches more importance to open and frank communication and the willingness of private parties to accept risk than does the private sector. The government also attaches more importance to the ability of the private sector to commit equity over the long term. In addition, the government attaches less importance than the private sector to the previous experience of the private sector, while the private sector is more concerned about the experience and capacity of government departments that deal with PPPs.

When considering the choice between a public-private partnership and traditional procurement, the literature has not considered in detail the opportunity costs that result from the relative time overruns involved. As mentioned above, and particularly in complex contracts, time overruns might occur during the negotiation phase of a PPP. Compared to traditional procurement, these time overruns will cause delivery of the service to occur later. As such, there is an opportunity cost in the form of the lost utility that consumers experience if the service is not being delivered during the overrun period (however, this cost is probably very difficult if not

impossible to quantify). Traditional procurement might also experience a time overrun, particularly once construction starts. Experience shows that time overruns during the construction phase are much longer in the case of traditional procurement. Such overruns will again result in an opportunity cost in the form of lost consumer utility if the service is not delivered during the overrun period. Therefore, both PPPs and traditional procurement may carry an opportunity cost resulting from time overruns: in the case of a public-private partnership, the time overruns result from protracted negotiations, while in the case of traditional procurement they result from delays during the construction phase.[22] In both cases, the opportunity cost is the lost utility that results from the non-delivery of the service during the overrun period. These opportunity costs must be thoroughly considered before a government decides whether or not a project is suitable for the PPP route. This consideration becomes even more relevant with more complex projects, since the more complex the project, the larger the potential for time overruns during the negotiation phase of a public-private partnership.[23] A solution applied in some countries is the standardisation of PPP contracts, especially for similar projects that will be on the market on a regular basis such as schools or hospitals. Standardisation can make it possible for potential bidders to make an investment in evaluating contracts of interest, with the possibility of spreading the cost over several potential contracts.

Complexity also has an impact on the level of competition. In the case of complex projects, the number of potential private partners who possess the necessary skills and capacity to be a partner might be limited. In addition, complexity usually increases the bidding cost for potential private partners. Higher bidding costs mean larger losses for the unsuccessful bidders, which in turn may serve as a disincentive to bid in the first place. There is not much that a government can do about a limited pool of companies with the right skills and capacity to be a private partner, except possibly open up the bid to international bidders. Regarding the high bidding cost, a government can completely or partially compensate companies, thereby ensuring more bidders. However, in the event that the government pays compensation for bidding costs, a company interested in bidding should first prove that it has the skills and capacity to be a potential partner. The government should also include the compensation for bidding costs in its cost calculations when comparing the PPP option to traditional procurement (if the government does not pay compensation, the private sector actors will include their bidding costs in their cost estimates – if not explicitly, then implicitly by requiring a higher rate of return).

Though complexity and the asymmetric availability of skills and capacity in the private and public sectors serve as incentives to take the PPP route, the government's lack of skills may also give rise to a principal-agent

problem. This problem may occur not because the principal (*i.e.* the government) does not possess the same information as the agent (*i.e.* the private partner), but because the government does not have enough expertise to monitor and regulate the contract once construction and delivery begin. This situation might undermine the value for money that the government seeks from the PPP. However, given the government's lack of skills, it might not fully comprehend the precise reason why value for money is not achieved. The government's lack of skills also means that it is at a disadvantage if aspects of the PPP contract are renegotiated after the conclusion of the contract. Malone (2005:426-427) argues that the lack of skills explains the large amounts that governments spend on advisors when negotiating PPP contracts. These costs may at times even inhibit the government from taking the PPP route. Hence there is a real need for governments to develop the necessary skills and capacity to deal with PPP contracts.

To attract and retain the needed skills, the government may be obliged to pay competitive salaries to the civil servants who handle PPP contracts – salaries that are comparable with those of their peers in the private sector. As may be expected, this is a rather contentious issue, since paying the civil servants involved in the management of the government's obligations in a PPP contract a salary that is comparable to their private partner peers may create a discrepancy in civil service remuneration. In some countries, doing so might also not be allowed in terms of the civil service rules and regulations. But not doing so may result in a lack of government capacity, the cost of which – in terms of the cost of advisory services and the lost benefits due to weak negotiation skills – may exceed the additional costs of higher salaries. One way to help alleviate this problem can be to use the private sector more extensively in the negotiation process, *i.e.* hiring a private company to negotiate with the PPP bidders on behalf of the government. This remedy will of course not solve all the problems mentioned above, but some aspects of contract writing and negotiation that require specific competence and experience can be handled through a private company instead of in house.

1.5.3. Contractual flexibility and renegotiation

PPP contracts are usually long term, often spanning periods of 25 to 30 years. There are even cases of 60-year contracts (*cf.* the 62-year French road contract mentioned in Chapter 2). Because the government specifies the quality and quantity, and because payment to the private partner depends on its delivery of that specified quality and quantity, PPP contracts can be very inflexible. Since the design, standards and forecast demands may prove inadequate or irrelevant to shifting societal needs, the inflexibility and the

long-term nature of PPP contracts are major weaknesses. As such, there is a trade-off between a flexible PPP and a PPP that is designed to consistently provide a specified quality and output (PricewaterhouseCoopers, 2005:22 and 33). Though a government usually does not prescribe to the private partner what the design of the project should be, the design is nevertheless constrained by the specification of the quantity and quality that the government requires. Policy makers who consider the value for money of PPPs must also take into consideration the opportunity cost imposed by the inflexibility of the PPP design and contract. For example, a private operator who is interested in a highway project and who is anxious about future revenue may require, as part of the PPP contract, an assurance from the government that it will not build a rival railroad. Because the government would forgo a real future option by signing such a contract, the opportunity costs must be rigorously examined and detailed in the value for money analysis of the PPP. Unfortunately governments are unlikely to undertake such an assessment as part of their *ex ante* VFM analyses because changes in future needs are difficult to identify (*i.e.* they represent a case of uncertainty rather than a risk) and because these needs would affect future administrations and not the present one (Davis, 2005).

Another example is the cost-saving effect that changing technology might have in the future. A government might miss out on this cost-saving effect if it must continue paying a private partner who delivers a service by means of obsolete technology. If the service was being delivered through traditional procurement, the government could simply switch to the new technology. Thus the contractual commitment of the government in the PPP might imply that it has to buy a relatively expensive service, thereby destroying the value for money of the PPP compared to traditional procurement. This raises the question of who should bear the risk of technological redundancy. The allocation of this risk will depend on the degree of contract rigidity (as opposed to flexibility). The more rigid the contract, the more risk the government carries, whereas if the contract is more flexible, the private partner carries more risk. However, the private partner will probably only be willing to carry the additional risk if the government pays it to do so.

Because of contractual rigidity arising from changing technology and varying demand levels, a government may wish to renegotiate a PPP contract. The desire to renegotiate is not limited to the government, since unforeseen circumstances may also cause the private partners to wish to renegotiate. The renegotiation of PPP contracts (and concession contracts[24]) is not uncommon. HM Treasury (2003b) reports that 22% of PFI contracts have undergone modifications during their construction stage, while Estache (2006:4) notes that in Latin America up to 50% of all concession contracts

are renegotiated. Unfortunately, if a government needs to renegotiate the PPP contract, it might be at a disadvantage if the private partner does not face actual or potential competition. Thus, renegotiation in the face of inadequate competition might further destroy the cost-saving advantages of a public-private partnership and undermine the government's capacity to ensure value for money. This problem is exacerbated the longer the period of the contract and the more complex the service itself or the negotiations.

If renegotiations fail, or if the private operator fails, the PPP contract is in danger of terminal failure. Failed renegotiation that results in the termination of the contract can often be ascribed to tensions that occur in the contractual relationship. Examining these tensions for least developed countries, Estache (2006:18) found that, although PPPs resulted in higher levels of efficiency, quality and access rates, their fiscal and distributional (as in social equity) costs were higher than expected. This combination of efficiency, quality, access and costs leads to tension between a government and its private partners and, according to Estache (2006:18), explains the higher degree of partnership divorces.

The rigidity or flexibility of PPP contracts draws attention to the general conditions under which contracts can be renegotiated in the light of unforeseen circumstances. In principle, renegotiation should only be allowed when the *ex post* risk exceeds the *ex ante* risk, *i.e.* when, after the conclusion of the contract, one party realises that the risk that it has been carrying is larger than any of the parties foresaw with the initial contract negotiations.[25] This means, for instance, that not all the increases in input cost that are large and that threaten the profitability of the private partner necessitate the renegotiation of the contract, particularly not if the probability that such an increase may occur has been included in the *ex ante* assessment of risk and hence the calculation of the compensation paid to the private partner. These considerations again highlight the need to do a proper risk analysis and to weigh the risks as far as possible as part of the initial value for money assessment.

A government can take steps to improve the flexibility of PPP contracts (though these steps will not necessarily solve many of the problems that a lack of flexibility creates). Box 3.4 describes how flexibility is improved in United Kingdom PFI projects (HM Treasury, 2003b). These efforts include the right to modify specifications (of course at a cost to government) and the right to send out a call for tender for modifications. Chong *et al.* (2006:526) state that, in France, because contracts between local authorities and private operators are administrative contracts, the authorities have the right to change the specifications of the contracts once they are signed (of course, the authorities must justify the changes and compensate the private operators for the changes). Quiggin (2005) proposes another mechanism that might

improve the flexibility of PPP contracts, and in particular long-term contracts. This mechanism takes the form of an options clause that is included in the PPP contract and that either party (*i.e.* the government or the private partner) can exercise – for instance, every five years – if it wants to terminate the agreement.[26] In the event of renegotiations, the options clause provides both parties with a credible "threat" that will improve the chances of both parties benefiting from the renegotiation (Quiggin, 2005:449).

Box 3.4. Building flexibility into the United Kingdom private finance initiative (PFI)

The United Kingdom PFI scheme builds flexibility into its contracts by giving the public sector large leeway in its ability to modify a project, or even cancel it in rare cases. Recognising that an asset once built is inherently constrained by its design, a PFI contract enables flexibility for the public sector through the following rights (with the public sector bearing the cost burdens for modification):

- The government has the right to modify the construction or operational specifications provided an agreement is made with the private contractor on the entailing costs.
- For modifications that exceed GBP 100 000, the government can tender a competition to ensure value for money.
- If disagreement arises over the process, a binding dispute resolution procedure takes place. If the public sector is still dissatisfied or if the desired output cannot be delivered by the PPP even after modifications, the government has the right to voluntarily terminate the contract (distinct from contract termination due to the contractor's default).

The United Kingdom experience shows that 22% of PFI contracts have undergone modifications during the construction stage, mostly to adjust for changes in scope. However, because these projects are still in their early stages, it is premature to conclude how frequently contract modifications or terminations may occur.

Source: HM Treasury (2003), *PFI: Meeting the Investment Challenge*, The Stationery Office, London, *www.hm-treasury.gov.uk*.

Finally, even if questions regarding flexibility can be addressed, past experience shows that public-private partnerships are not necessarily always the only or best option for public infrastructure and service needs. Malone (2005:427) mentions that, in the United Kingdom, prisons and roads make for more successful PPPs, while hospitals and schools make for less successful PPPs. Given the high rate at which information technology may become redundant, IT public-private partnerships have all but ceased.

Areas of contract negotiations and renegotiations may include the following:

- Project agreement: establishing the rights and obligations of both parties.
- Performance specifications: technical, financial, and service requirements.
- Collateral warranties: establishing direct links between the public authority and all the contracting parties.
- Direct agreements: regulating the relationship between all parties and financers.

Table 3.1 provides a more extensive look at possible areas of negotiation.

2. The public sector comparator (PSC)

Prior to undertaking a public-private partnership, a government should be sure that, compared to traditional procurement, a PPP will deliver better value for money (VFM). This requires an *ex ante* comparison of the VFM of both the PPP and traditional procurement in every case where the government contemplates using a public-private partnership. The public sector comparator (PSC) is an instrument that governments can use to conduct such an *ex ante* comparison. The discussion below considers the PSC in more detail, first by considering its role in the *ex ante* assessment of the project and, second, by considering the relationship between the PSC and the level of competition during the bidding process.

2.1. Ex ante *assessment and the public sector comparator*

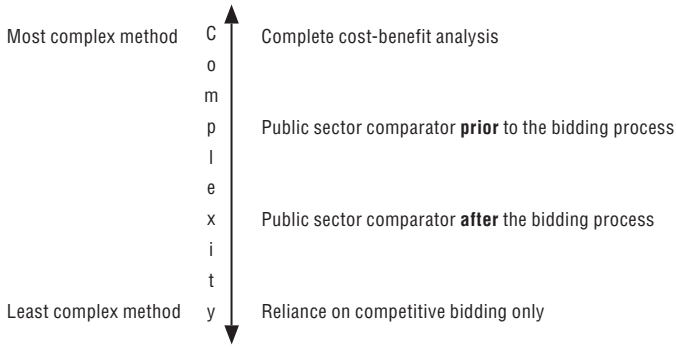
Different countries use different methods to assess value for money. Grimsey and Lewis (2005:347 and 351) classify these methods on a spectrum that denotes the level of complexity involved (see Figure 3.5). The most complex assessment method is a complete cost-benefit analysis of all the alternative methods that the government and the private sector can use to undertake the project. Next in line is where the government uses a public sector comparator prior to undertaking the bidding process. The third is the use of a PSC after the bidding process. The last case does not involve a comparison between public and private alternatives, but merely relies on the competitive bidding process to ensure VFM.

Table 3.1. Potential areas of negotiation

Heading	Detail
General provisions of the agreement	– Legislative approaches – Governing law – Conclusion of the project agreement
Organisation of the concessionaire	– Legal form – Capital – Applicable accounting standards
Project site, access and easement	– Ownership of project assets – Land acquisition for the purposes of the project – Easement and transit agreements
Financial arrangements	– Financial obligations of the concessionaire – Tariff setting and tariff control – Financial obligations of the contracting authority
Security interests	– Security interests in physical assets – Security interests in intangible assets – Security interests in trade receivables – Security interests in the project company
Assignment of the concession	
Transfer of controlling interest in the project company	
Construction works	– Review and approval of construction plans – Variation of project terms – Monitoring powers of the contracting authority – Guarantee period
Operation of infrastructure	– Performance standards – Extension of services – Continuity of services – Equal treatment of customers or users – Interconnection and access to infrastructure networks – Disclosure requirements – Enforcement powers of the concessionaire
General contractual arrangements	– Subcontracting – Liability with respect to users and third parties – Performance guarantees and insurance – Changes in conditions – Exempting impediments, "force majeure" – Breach and remedies

Source: European Commission (2003), *Guidelines for Successful Public-Private Partnerships*, Directorate-General Regional Policy, EC, Brussels, *http://ec.europa.eu/regional_policy/sources/docgener/guides/pppguide.htm*.

Figure 3.5. The spectrum of methods to assess value for money



Source: Based on Grimsey, D. and M.K. Lewis (2005), "Are Public Private Partnerships Value for Money? Evaluating Alternative Approaches and Comparing Academic and Practitioner Views", *Accounting Forum*, 29(4), pages 347 and 351.

Complete cost-benefit analysis as used in Germany (Grimsey and Lewis, 2005:353) requires significant information and assumptions regarding costs and benefits. Because of the subjectivity involved in the making of the assumptions, Grimsey and Lewis argue that the use of a cost-benefit method may create ambiguity as to whether or not a public-private partnership will deliver the best value for money.

The second method, employed in Japan, the Netherlands and South Africa, is the use of a public sector comparator prior to the bidding process (Grimsey and Lewis, 2005:353; National Treasury, 2004). In this case, the PSC is compared to a "shadow" or reference PPP, and only once the reference PPP has demonstrated that a public-private partnership can deliver better value for money than traditional procurement can the project proceed to the bidding phase. After bidding, the VFM assessment might be updated to establish whether or not the project still yields value for money. An example is the three-stage value for money assessment process introduced in the United Kingdom in 2004 and updated in 2006 (HM Treasury, 2006b). HM Treasury provides a simplified spreadsheet for completion by government entities interested in a PFI project, in order to assess whether or not a project represents VFM compared to traditional procurement (HM Treasury, 2006c). The spreadsheet is in essence a simplified PSC model.[27]

The third method is the use of a public sector comparator after the bidding process (though it is compiled prior to the bidding process), in

which case the PSC is compared with the actual PPP bids to establish whether or not they represent value for money. Australia employs this method (Grimsey and Lewis, 2005:352). The fourth method – the competitive bidding process – is used in France and the United States[28] and in countries in Latin America, Eastern Europe and francophone Africa (Grimsey and Lewis, 2005:352-353). This method is also used more in the context of concessions, rather than PPPs, while the reverse holds true for the use of the PSC.

The public sector comparator (PSC) is the preferred assessment tool in many countries since it is less subjective and complex than a cost-benefit analysis and thus easier to compile, yet it still provides a tool with which to compare private sector bids (Grimsey and Lewis, 2005:360). While competitive bidding may ensure value for money, the absence of a PSC may create doubt about whether or not the public sector had indeed saved on costs and achieved value for money. According to the United Kingdom Treasury (HM Treasury, 2003a), a PSC is "a hypothetical risk-adjusted costing, by the public sector as a supplier, to an output specification produced as part of a PFI procurement exercise." The PSC models financial estimates of what the costs envisioned in a proposed PPP would be if the project were fully funded and operated by the public sector instead of being a public-private partnership. Simply put, the PSC calculates the in-house implementation costs and is used as a benchmark to compare alternative policy options. A PSC calculates the net present value of procurement, taking into account defined output specifications as well as associated risks. The baseline cost of the public sector comparator is usually based on historical costs for services that have traditionally been offered by the public sector. The cost is also usually based on the most recent year's operation and is adjusted on the basis of projected future particularities such as future demand, growth, demographical changes and political considerations. The base year is usually normalised to account for anomalies such as one-time events, wage changes, major capital improvements and service differences attributed to natural forces. A base year normalisation is done to model a typical year of operation (Industry Canada, 2003). Box 3.5 contains details that the constructors of a public sector comparator should consider. PSC construction enables policy designers to (Industry Canada, 2003):

- assess the affordability of a PPP by ensuring full life-cycle costing from the start;
- test project viability as measured by value for money;
- manage discussions for PPP partners on critical issues such as risk allocation and output specifications;

- stimulate strong bidding competition by building greater transparency and trust in the bidding process.

Box 3.5. Financial checklist for the public sector comparator

A study by Industry Canada outlined five key aspects of PSC construction: life-cycle costing (including direct and indirect costs), third party revenues, financial analysis techniques, funding sources and risk adjustments.

- **Life-cycle costing approach:** The PSC is calculated using the net present value (NPV) calculated over the expected life cycle of the project. It calculates the costs of the project based on the design, construction, operation and maintenance of the project during its life cycle:
  - Direct costs: initial capital outlay and upgrades, and operating and maintenance costs.
  - Indirect costs: such as administrative overhead costs, hidden/assumed costs, risk transfer costs, surplus capital costs, and third party revenues shares.
- **Third party revenues:** Identifying third party revenues requires analysing both the simultaneous interaction of price and quantity (the demand curve) and the segmented study of each of those variables separately. Forecasting third party revenue would be even more challenging if limited historical data are available, which is the case in most public programmes. In contrast, the private sector is familiar with third party revenue notions, and a PSC assessment should be able to convincingly substantiate its analysis of forecast third party revenues as it represents a major risk element in the deal.
- **Financial analysis techniques:** In addition to the aforementioned NPV analysis:
  - Return of investment or payback period of capital upgrades during the project's lifetime.
  - Sensitivity analysis to test and verify assumptions, the vitality of the PSC, risks and the predicted operating environment of the project. Sensitivity analyses are especially effective for identifying changes in key assumptions and for evaluating the PSC *vis-à-vis* competing bids.
- **Funding sources:** Sub-national governments that wish to construct a PSC may not have enough funding to do so. The study states that the lack of funding means that a PSC should not necessarily be "a prerequisite for embarking on a [PPP]".
- **Risk adjustments.**

Box 3.5. Financial checklist for the public sector comparator *(cont.)*

To this list one can add the extent to which the private operator uses financial leverage. Leverage does not amplify project risk but rather the risk of failure of the private partner. The higher the level of leverage of the private partner, the larger the impact of a shock on the net worth of the private operator. Though a government can probably not be prescriptive in how a private operator constructs the liability side of its balance sheet, the capital (debt and equity) structure of a private operator's balance sheet may impact on the sustainability of the future benefit stream that it promises the government (and will thus affect the expected value for money of the project). Thus, a government may need to consider this issue when considering competing bids.

A further issue that in future may require specific attention is the use of off-balance sheet risk management instruments such as derivatives (swaps, futures and options) to manage the risk in projects.

Finally, PPP contracts should also ensure that the attractiveness of a public-private partnership is not affected by different tax treatments of public and private sector entities. Examples of different tax treatments include public sector entities that in some countries do not pay sales taxes. This improves the attractiveness of traditional procurement. An example that improves the attractiveness of a PPP occurs when private sector companies enjoy benefits such as accelerated depreciation allowances.

Source: Industry Canada (2003), *The Public Sector Comparator: A Canadian Best Practices Guide*, Industry Canada, Ottawa.

Thus, a public sector comparator can be defined as a benchmark project plan that represents a hypothetical exposition of a project should that project be undertaken through traditional procurement. As such, a PSC assists government in deciding whether to use traditional procurement or a public-private partnership to provide a service. The main components of a PSC in Australia are the raw cost, transferable risk (which constitutes on average approximately 8% of the project value in Australia), non-transferable risk and competitive neutrality (to cancel out, among other things, the tax benefits of state companies that private companies do not have) (Grimsey and Lewis, 2005:355-357; on the estimation of risk, see Corner, 2006:50-53). The PSC is hypothetical since the government cannot obtain real quotes or bids through a traditional procurement process if it does not intend to take the traditional procurement route. Unfortunately, most of the criticism levelled against the use of a PSC relates to it being hypothetical.

In addition, the exercise of compiling a public sector comparator and having each bidding company go through the creation of a projected PPP model is a costly and time-consuming exercise. Complex PSCs may take several months, depending on the detail and complexity of the proposed

public-private partnership (Davis, 2005). The costs involved reduce the net benefit and may cause many potential private partners and financial institutions not to bid for relatively small projects. This raises the question of whether the process needs to be so stringent when a government wants to undertake smaller projects. Thus, smaller projects might be launched through a competitive bidding process that does not involve a public sector comparator. As the experience in France with water concessions indicates, value for money can be created even in the absence of a PSC. Another example would be the case in Australia where the new Victoria County Court building was built through a public-private partnership without the use of a PSC. Instead, designers used a cost estimate based on a reference case to evaluate value for money. The project was completed within two years of contract agreement, and its clients have highly applauded its operation since then (P. Fitzgerald, 2004). As recommended in Australia, other steps to reduce bidding costs should also be considered (Malone, 2005:426). Since more is at stake for all parties in larger projects, and because there are economies of scale to be exploited when considering the cost of setting up and negotiating a PPP deal, the PSC route can be reserved for larger projects. In addition, for more standardised projects such as the building and maintenance of school and office buildings or water projects that are replicated across local authorities, a government can consider the creation of a generic PSC that can then be adjusted (and not time and again be worked *ex nihilo*) to fit the specific circumstance.

When using a public sector comparator, a government should not just mechanistically compare the PSC and the public-private partnership, but should take note of the "dangers of putting disproportionate emphasis on a single figure comparison" (HM Treasury, 2003b). In essence, the PSC is used to generate a net present value (NPV) of what traditional procurement would cost. This NPV must then be compared to the NPV of either a reference PPP or the actual PPP bids (or both). Because a PPP and a PSC both involve assumptions about the future and projections that include risk assessments, one danger of using a public sector comparator is that of spurious precision (also see Corner, 2006:44). In such a case, the NPV calculations in the PSC and the PPP proposal might be very close. A slight change in assumptions or in the assessment of risk may change the NPV calculations and cause the preference for a PPP to shift in its favour or against it.

To ensure transparency and fairness, PSC analysis should clearly delineate assumptions and disclose information sources. In addition, PSC estimates might be very sensitive to the timing of the costs, since the further a particular cost can be shifted into the future, the lower its impact on the present value calculated with the public sector comparator. A government

also needs to decide how to incorporate indirect costs into its PSC model. Costs not directly derived from asset or service provision, such as overhead or hidden/assumed costs, may bias PSC modelling.

Another difficulty with which a government must deal in the construction of a PSC is the use of the proper discount rate (Corner, 2006:44). The main question is whether or not the same discount rate should be used by both the government and the private operators. As the IMF (2004:12) argues, though transferring risk to the private partner does not affect the cost of capital, which depends on project risk, the source of the financing may affect project risk and hence the cost of capital. Furthermore, compared to the private sector, a government has less default risk, which explains why the government pays a lower interest rate on its debt.

There are several approaches that a government can follow in selecting a discount rate (see Box 3.6 on how interest cost affects the choice between delivering a project as a PPP or through traditional procurement). The government can use a discount rate that includes a risk premium and apply it to future cash flows that reflect future risks. Alternatively, it can use a risk-free discount rate and apply it to future cash flows that have been adjusted to be certainty equivalents. When using a discount rate with a risk premium, the latter should only include systemic risk, since idiosyncratic risk can be diversified away. The interest rate used can be the one specified by law (as in the United Kingdom, where currently the rate is 3.5% [IMF, 2004:39]) or an actual market rate (such as in South Africa, which uses the rate on a government bond with a term to maturity that corresponds with the term to maturity of the PPP contract). The former has the advantage that, since it should ideally represent an equilibrium discount rate, it is suited for discounting long-term contracts. However, if the specified rate deviated from the real equilibrium rate, the result may be a biased present value for the PSC and the PPP. The use of an actual market rate may eliminate such bias, but in the short term may deviate from the trend, thus also biasing the present value for the PSC and PPP calculation. This problem might be partly addressed by using a moving average of the actual market rate or an econometrically estimated equilibrium rate (though using either of these two is also not a perfect solution).

When using an actual market rate as a discount rate in a public sector comparator, a related issue is whether a PSC should be conducted in nominal or real terms. If nominal interest rates are subject to the full Fisher effect[29] and if the adjustments take place without any leads or lags, it does not matter whether one conducts the analysis in real or nominal terms. However, in reality leads and lags do exist. In addition, depending on the monetary policy regime (*i.e.* depending on whether monetary policy is prudent or loose), the real interest rate might either increase or decrease

following an increase in inflation (and not remain constant as the Fisher effect would postulate). The absence of the full Fisher effect means that conducting the PSC and PPP analysis in nominal or real terms, when using actual market rates, may yield quite different results.

Box 3.6. Efficiency gains and differences in public and private sector interest rates

Even if the efficiency with which the private partner in a PPP delivers the project is higher – when compared to traditional procurement – the net benefit of the project to a government may still be greater in the case of traditional procurement because of the different interest rates paid by the government and the private sector. Though the private partner may have improved efficiency, the cost of capital for the private partner is usually higher than for the government, *i.e.* the interest rate on private sector loans usually exceeds the interest rate on public sector loans. Thus, for the net benefit of a PPP to exceed the net benefit of traditional procurement, the efficiency gain of the private sector must exceed the additional interest cost that the private partner pays compared to what the government would pay in the case of traditional procurement. If the efficiency gain falls short of the additional interest cost, the minimum unit price at which the private partner can deliver the service will not be lower than the price the government would pay in the case of traditional procurement.

Other issues that affect the credibility of a public sector comparator are affordability and the impact of budgetary limits. A PSC may not be a realistically viable financial benchmark for deciding on a PPP when the asset or service under consideration would not have been possible except through the participation of the private sector and the availability of private funding mechanisms (Grimsey and Lewis, 2005:355). A good number of public-private partnerships are conceived due to the lack of public financial resources, in which case benchmarking efficiency against an infeasible policy option is problematic. When affordability or the impact of a budgetary limit is the issue, the government might put less attention and effort into compiling the PSC than if public procurement was a viable possibility. The assessment might then be biased, particularly if such a PSC is compared to the PPP bid of a company that is willing to commit and that therefore puts significant effort into compiling its bid. In addition, if unaffordability and budgetary limits preclude traditional procurement, the government knows that – if the PSC shows that the bids submitted do not represent value for money – the project will not go ahead at all (*i.e.* no delivery will occur, neither through a public-private partnership nor through traditional procurement).[30] This situation, together with a strong wish to

deliver, may create an incentive to bias the public sector comparator so that it shows that a PPP will represent value for money.

2.2. The public sector comparator and competition

PSCs are also useful instruments for governments to use in markets that may lack competition. Ideally, a competitive market implies the existence of many buyers and sellers. However, many PPPs operate in a setup where there are a limited number of buyers (often only one) while there are also a limited number of projects. The result may be a thin market, dominated by a monopsonist (*i.e.* a single buyer as opposed to a monopolist in the case of a single seller). As discussed above, a lack of competition among bidders may result in a public-private partnership that does not yield the value for money improvements that a government expects a PPP to deliver in comparison with traditional procurement. When there are few bidders, the PSC is an instrument to assess whether the lack of competition in the bidding process reduces the value for money of the PPP.

When putting together project designs and contract details in the case of only one buyer and only a few projects, there is not much scope to exploit economies of scale if the scale depends on the number of projects. The relative transaction cost per contract will be increased; and the higher the transaction cost, the fewer bidders there will be. One way to address this problem is to fully or partially compensate bidders for their bidding costs. However, even with compensation there is still an opportunity cost in that the resources used in the unsuccessful bids could have been used to generate other profitable opportunities. The opportunity cost involved is the forgone profit weighed by the probability of securing the contracts of the other profitable opportunities. Thus, in a thin market with a monopsonist, potential suppliers (*i.e.* potential private partners) may be reluctant to bid, thereby limiting the number of possible bidders. This situation might explain why there are on average only three bidders per PPP contract in the United Kingdom, and why there are even less than three bidders in a quarter of the contracts (Zitron, 2006).

A small number of potential bidders limits the effect of competition on the contract. This effect becomes even more important if, for a particular service such as prisons or toll roads, the same small group of companies tends to bid for all or most of the contracts. If tendering is continuously limited to the same small group of companies, they may start exhibiting oligopolistic behaviour. As such, the market for a particular service may be dominated by a monopsonist (the government) on the buying side and an oligopoly on the selling side of the market. Whether or not the price established in such a setting will ensure value for money cannot be

determined *a priori*, which explains why the existence of a thin market may require the use of a PSC. The public sector comparator does not replace or simulate the effect of competition in a thin market; competition remains the main driver of value for money. However, the PSC, in effect, is used to establish whether or not the oligopolistic structure of the market does not undermine the pursuit of value for money.

At lower levels of government, there is the possibility of deeper markets – in particular, for instance, if there is a large group of local authorities that all use public-private partnerships. This group of local authorities constitutes a larger group of buyers, thereby approximating more closely a true competitive market ideal. The larger group of buyers also gives sellers the opportunity to participate in more bids. If contracts for projects and the procedures are standardised from the buyers' side, the positive effects can be improved even further. Sellers know that if they fail in their bid for one contract, they can merely bid on the next. If the service and the design of the assets with which the seller must deliver the service have a significant level of homogeneity, economies of scale might exist in contractual design and bidding, with the scale to be found in the number of contracts. Transaction costs will be reduced, which in turn might cause the number of sellers that bid for a contract to increase. This increase in the level of competition may increase the potential for value for money. (However, care should be taken that the same group of companies does not dominate bidding, which again raises the danger of oligopolistic behaviour.) In time, a large number of awarded contracts may yield the details necessary to compile a database that in turn can be used to compile benchmarks of best practice. Thus, with higher levels of competition, the need to have a public sector comparator may be reduced, but only if reliable best practice benchmarks have been created on the basis of past data. Therefore, in countries that are currently still setting up PPP frameworks and in which the number of PPP contracts has not been extensive, such a database and the resulting benchmarks do not exist. In the absence of benchmarks, the PSC may again be a valuable tool to ascertain value for money, at least until such time as the government has collected enough information with which to compile reliable benchmarks.

3. Measuring performance[31]

The use of a public sector comparator to measure the relative value for money of a PPP contract prior to the conclusion of the contract helps to set a performance benchmark for the public-private partnership. However, it is not sufficient to ensure that actual performance will yield the expected value for money. Thus, after the PPP contract has been concluded, the

performance of the public-private partnership must be monitored throughout its life.

In the United Kingdom, this monitoring occurs in the form of both formal and informal analysis to assess whether or not value for money is maintained in the PFI project. More formal analysis includes the use of market testing and benchmarking exercises for soft services as set out in the original contract, while informal analysis involves comparing outturn data to original assessments. In addition, in the United Kingdom the government uses target benchmarks for key performance indicators (KPIs). These KPI targets are more often specified in terms of an acceptable range of performance rather than single-point measures of performance.

In the State of Victoria, Australia, the government locks in value for money as part of the contract by agreeing a fixed price for the delivery of services that meet specified financial and non-financial KPIs. After the conclusion of the PPP contract, the focus is not on measuring whether or not government is getting better value for money than was agreed in the contract. Rather, the government assesses: *i)* whether or not the contractor is actually delivering the value for money agreed upon in the contract; and *ii)* whether or not the financial and non-financial investment benefits of the project (identified as part of the business case/investment logic map in the pre-contract phase) are being delivered. The government of Victoria plans for all KPIs to have specified target levels that contractors are expected to meet.

In France, in most sectors wherever performance is measurable, PPP contracts contain key performance benchmarks, *i.e.* target levels for performance benchmarks. In Brazil, contracts generally establish standards or target levels that must be followed by the private partner, while in Hungary contracts also contain performance indicators.

PPP performance can be readily measured using a basket of performance indicators. These indicators include:

- efficiency measures defined in terms of inputs and outputs (*e.g.* the provision of a health service at the fee [if the government pays] or user charge [if the user pays] agreed with the government);
- effectiveness measures in terms of outcomes (*e.g.* quantity, level of coverage of area or population);
- service quality measures;
- financial performance measures;
- process and activity measures.

The governments of the State of Victoria (Australia), Brazil, France, Hungary and the United Kingdom use some or all of these performance indicators. Table 3.2 contains a summary of the measures used by these countries.

Table 3.2. Performance indicators used by selected governments to measure the performance of public-private partnerships

	Victoria, Australia	Brazil	France	Hungary	United Kingdom
Efficiency measures defined in terms of inputs and outputs	√	√		√	√
Effectiveness measures in terms of outcomes	√	√	√	√	√
Service quality measures	√	√	√	√	√
Financial performance measures	(1)				√
Process and activity measures	√	√		√	√

1. Although contracts in Victoria do not typically include financial performance measures, the government does monitor the financial performance of a concessionaire and its principal contractors (private parties must submit their financial documents to the government).

The frequency with which governments measure the performance of private partners also differs between countries. In the United Kingdom, performance is measured continuously. In addition, HM Treasury centrally collates data covering PFI projects on a biannual basis.[32] In Victoria, the private party must prepare and deliver to the government a regular periodic performance report (usually monthly). The private party must (on an annual basis) also provide the government with a copy of its business plan for the following year and its budget for the next two financial years. It must also provide unaudited financial documents on a six-monthly basis and audited financial documents on an annual basis.[33] In addition, at any time up to six months after the end of the contract, the government may (at its own cost) require an independent audit of any financial statements or accounts provided.[34] In France, private parties must report their results annually to the government, while in Brazil reporting depends on the indicator and the type of project (highway, railroad, etc.). In Hungary, private parties must report their results on a quarterly basis to the government.

If a private partner falls short on a key performance indicator in the case where the government pays a fee to the private partner, effective performance management requires that the payment of the fee be reduced in line with the extent of the shortcoming. The threat of a fee reduction serves as an incentive to the private partner to ensure that its performance matches

the target defined in the indicator. Thus, fee reductions ensure the effective transfer of risk to the private partner. In the United Kingdom, increasingly punitive deductions are involved when KPIs are not met. For example, a small one-off failure may not incur a payment deduction, whereas a continuous small failure or large one-off failure will have proportionally higher payment deductions. In Victoria, Australia, a similar regime is in place and a distinction between a "major" and a "minor" default regime is considered appropriate. In France, the fee component linked to the operation may be affected if the private party falls short in performance, while the fee component relating to the investment is not necessarily affected. In Brazil, the PPP law requires that any payment provided by the government must be linked to service provision. Therefore, if the private partner does not meet service level parameters, there can be deductions from the agreed fee. In Hungary, fee reductions can also occur, though quite often the amount of possible reduction is limited.

4. Evaluating the success of the public delivery of services, including those delivered through the PPP mechanism

Public-private partnerships, together with traditional procurement and the granting of concessions, constitute different modes through which the government can deliver services and implement its policies. Evaluating the success of these policies, and thus also the role that PPPs play in this success, requires performance measurement (through the use of a set of indicators) as well as the measurement of user satisfaction. The World Bank provides a framework with indicators (World Bank, 2007) within which the contribution of infrastructure PPPs to policy success can be measured in two dimensions: financial standing and sector-specific performance (*i.e.* energy, water, transportation, health, etc.). Regarding financial standing, the World Bank indicators are:

- total expenditure in infrastructure (from all sources in all sectors);
- national government expenditure in infrastructure;
- local government expenditure in infrastructure;
- state-owned enterprise expenditure in infrastructure;
- private investment in infrastructure.

Sector-specific indicators may vary, but an example using the water sector is illustrated in Box 3.7.

Box 3.7. Water sector infrastructure indicators

- Access to improved water services
- Urban access to improved water services
- Rural access to improved water services
- Access to improved sanitation services
- Urban access to improved sanitation services
- Rural access to improved sanitation services
- Spending on water services
- Average volume of water used
- Average water tariff from water utility
- Average water tariff from alternative sources
- Average sanitation tariff
- Percentage of utility service area with 24-hour supply
- Working ratio
- Staff ratio
- Collection rate
- Average revenue per m^3 produced
- Type of sewerage treatment
- Type of water supply treatment
- Water volume billed per connection

Source: World Bank (2007), "Statistical Annex: Infrastructure Indicators", The World Bank, Washington DC.

Notes

1. It should be noted, though, that – for example – the United Kingdom sometimes puts its PFI projects on the books and sometimes off the books. Using April 2007 data, 13% of PFI projects, representing 46% (GBP 24.3 billion) of the total value, were recorded on the books. Of that amount, three projects (all concerning the London Underground) represent GBP 17.6 billion. Not counting the London Underground projects, 13% of PFI projects are recorded on the books, representing 19% of the total value.

2. Because projects considered for delivery through a PPP mechanism involve investment as well as future revenue and expenditure flows, the correct budget constraint concept to use is the intertemporal budget constraint of the government, and not just the annual budget constraint.

3. The method of analysis differs depending on the type of PPP revenue generation: *i.e.* is it a financially free-standing concession contract with public grants, or is the public sector the primary client and revenue source?

4. The flows described in this section are based on cash budgeting, which is most commonly used. Accrual-based budgeting will have other entries in the books. For more on cash and accrual budgeting, see Chapter 4.

5. However, since the budget deficit is merely calculated as the extent to which revenues fall short of expenditure, government borrowing is rarely earmarked or linked to specific expenditures.

6. When nominal GDP (*i.e.* both its real and deflator components) is growing, the growth in the denominator in the public debt-to-GDP ratio will put downward pressure on the debt burden over time. This may even allow governments to incur additional debt without necessarily putting upward pressure on the debt-to-GDP ratio. It also means that debt in absolute terms might never be repaid, but simply rolled over. A government is able to do this since, unlike individuals, it does not have a limited life expectancy. This means that a government can expect to collect revenue which, among other things, it needs in order to service its

debt into perpetuity. Note that the infinite time horizon under which a government operates does not mean that its budget constraint is any less stringent than that of individuals. Rather it means that it has to balance its income and expenditure streams over an infinite horizon.

7. Nevertheless, in some cases a government also contributes to the capital as part of the risk-sharing agreement between the government and the private partner.

8. Note that if a project involves user charges, then the affordability of the project for consumers should also be considered. For instance, if public procurement would have been financed by taxes (now or in the future), while the public-private partnership would have involved a user charge, the present value of the revenue collected by a government will, all things being equal, be lower in the case of a PPP. However, while the present value of the average revenue-plus-user charge burden of consumers might remain unchanged, the revenue-plus-user charge burden of the consumers who use the service might increase, while the burden of those who do not use the service might decrease. Therefore, a public-private partnership might have a different revenue-plus-user-charge incidence than traditional procurement, which might affect the affordability of the service for those who consume it. A typical example is inner-city toll roads that are often very unpopular among users and often have another distributional effect compared to funding from general tax revenues.

9. This, of course, raises issues such as the extent to which a central budget will allow for soft budgets of government entities and departments.

10. Note that exceeding such departmental budgets might also cause the government as a whole to violate its intertemporal budget constraint. This may not only place the project outside the budgetary allocation of the government entity, but also render it unaffordable.

11. It should also be recalled that the extent to which the private partner depends on the user charge will be a determining factor in deciding whether such a project should be a public-private partnership or a concession.

12. Note that allocative efficiency is only one of the grounds on which a government can decide to deliver a good. The government might also decide to deliver goods on the basis of their distributional effects, *e.g.* free education or health care to all, including the less well-off who would not otherwise be able to afford it. As is the case with allocative efficiency, once the decision to deliver the goods has been taken, the next decision is about the mode of delivery, *i.e.* deliver the goods through traditional procurement or a public-private partnership. If a PPP is selected, the

distributional element might impact on the decision whether the private partner will receive a fee from the government, thereby obviating the need to charge a user charge on the relatively less well-off consumers of the goods, or whether to allow the private partner to charge a user charge, but with the government then subsidising the relatively less well-off.

13. Risk that is immeasurable should be distinguished from measurable risk. Immeasurable risk, or uncertainty, is discussed later in this chapter.

14. Risk analysis seeks to identify risks and their potential impact in order to assess the best response. There are two primary methods of quantitative risk analysis. Sensitivity analysis measures how the dependent variable changes – a variable like net present value or internal rate of return, for example – as the independent risk variables change. A partial equilibrium sensitivity analysis can be misleading because the independent variables are assumed to be independent of each other. Probability analysis finds the probability distribution for each risk and for the project as a whole. Sensitivity analysis becomes particularly important when probability analysis becomes more difficult to do.

15. The breakdown presented here is partly the breakdown by Fourie and Burger (2000). For a different breakdown of essentially the same risks, see Box 3.2 containing the breakdown by Merna and Smith (1996).

16. The term "commercial risk" is used synonymously with market risk, project risk and internal risk.

17. The guarantee of 90% for solicited projects and 80% for unsolicited projects for the entire operating period existed since January 1999 (Park, 2006). In May 2003, the guarantee changed to a period of 15 years (as opposed to the whole operating period) and to 90% for all projects for the first five years, 80% for the next five years and 70% for the last five years (Park, 2006). Furthermore, if actual revenue fell below 50% of projected revenue, there was no minimum revenue guarantee (MRG). The system changed again in January 2006 (Park, 2006). The MRG now covers only solicited projects for a period of ten years (with no guarantees for unsolicited projects). It also covers 75% of the first five years and 65% of the next five years. It continues not to provide any guarantee if actual revenues are lower than 50% of projected revenues.

18. Though the vast majority of these contracts might be classified as concessions, the underlying argument remains unchanged whether one considers public-private partnerships or concessions. (It should be recalled that risk transfer is a common element to ensure value for money in both PPPs and concessions, also meaning that the need for competition is a common element in the success of both.)

19. Chong *et al.* (2006:531-532) also state the prerequisites for the termination effect to be present. When contracts are renegotiated (or renewed), the local authority: *i)* forgets the past opportunistic behaviour of the private partner, and *ii)* does not infer past opportunistic behaviour from present price behaviour when current price adjustments are being made to improve the chances of being reselected.

20. Note that, in the absence of a "free rider" problem when the good is a private good, demand is fully revealed, enabling a private company to estimate demand and subsequently carry the demand risk involved. In such a case, privatisation instead of a public-private partnership may be the best mode of delivery.

21. If, instead of paying a fee per unit delivered, the government pays the private partner a fixed sum irrespective of the quantity and quality delivered, demand risk disappears altogether. This usually also leads to the project not being classified as a public-private partnership but as a financial lease, which in essence is a form of traditional procurement (Quiggin, 2005:448).

22. Of course the reverse might also happen, *i.e.* traditional procurement contracts might experience time overruns during their negotiation phase, while PPP contracts might also experience time overruns during their construction phase. However, the probability of these overruns happening is lower, explaining why they are not discussed here.

23. One issue that may contribute significantly to time overruns in the case of a public-private partnership is when the negotiations must also consider environmental impact studies and deal with environmental stakeholders.

24. Concession contracts and PPP contracts have in common that both are usually complex and long term, which means that the experience with the renegotiation of concession contracts also applies to PPPs.

25. Note that this refers to both upside and downside risk, *i.e.* it refers to both cost and revenue expectations.

26. Quiggin (2005:449) argues that the price of exercising the "put" option should be lower than for the "call" option, which means that, should the government terminate the agreement, it will have to pay a higher price than if the private partner did so. The reason is that unilateral termination imposes costs on the opposite party.

27. The spreadsheet (HM Treasury, 2006c) is available on line at *www.hm-treasury.gov.uk/documents/public_private_partnerships/additional_guidance/ppp.vfm_index.cfm*.

28. Though state governments in the United States – *i.e.* second-tier governments – do not use a formal public sector comparator, Grimsey and Lewis (2005:352) point out that many state contracts require that the private operators supply the service at a 5% to 10% saving compared with what it would cost if the state delivered it.

29. The Fisher effect occurs when the nominal interest rate increases one-for-one with the change in inflation, leaving the real interest rate unchanged.

30. Of course, this also raises the question of whether the cost of the public-private partnership, instead of being compared to a public sector comparator, should be compared to the cost of non-delivery since that is the true alternative.

31. The information contained in this section was mostly collected through a questionnaire (contained in Box 3.1) that was sent to key PPP officials in Australia (State of Victoria), Brazil, France, Hungary and the United Kingdom. The authors would like to thank Isaac Averbuch, François Bergère, John Fitzgerald, Seregélyes Kálmán and Samrita Sidhu for their co-operation and help. Any errors in interpreting the responses to the questionnaire are the responsibility of the authors.

32. Information covered during this data reconciliation exercise is available in the "PFI Signed Projects List" (HM Treasury, 2007), which is accessible on the Treasury's website at: *www.hm-treasury.gov.uk/documents/public_private_partnerships/ppp_pfi_stats.cfm*.

33. Further information regarding these requirements can be found in Chapters 16 and 36 of the *Standard Commercial Principles* (State of Victoria, 2005, *www.partnerships.vic.gov.au*).

34. See section 36.6.1 of the *Standard Commercial Principles* (State of Victoria, 2005, *www.partnerships.vic.gov.au*).

ISBN 978-92-64-04279-7
Public-Private Partnerships:
In Pursuit of Risk Sharing and Value for Money
© OECD 2008

Chapter 4

Budget Scoring and Accounting Treatment of Public-Private Partnerships

Given that PPPs involve both the government and the private sector, the recording of PPP activities occurs in the books of both the government and the private partners. The question is which aspects of a PPP transaction must be recorded in the government books and which in the books of the private partner. The answer to this question relates to the discussion above, since the degree of risk transfer is a key determinant for both the public and the private sector in deciding whether or not a project will be recorded on or off its books.

Usually, government expenditures are reported and accounted for in several different ways. As stated in the "OECD Best Practices for Budget Transparency" (OECD, 2002), the annual budget is the single most important policy document of a government. In the budget, policy makers state their preferences and make choices on how much to spend and on what. To be able to take these decisions, and for the public to evaluate them, there must be transparency and full disclosure of information on current and capital expenditures, as well as on commitments, guarantees, obligations and contingent liabilities.

In most countries, government data are captured in three accounting frameworks: the national accounts, the government finance statistics (GFS), and a country's own government budget and accounting framework. National budgets are, as the name implies, mainly directed and focused on the allocation of resources within a country. The way in which national budgets are organised and structured varies between countries, making it hard to compare them in an international context. National accounts and GFS on the other hand use internationally accepted standards and make international comparisons possible.

The growing interest around the world in public-private partnerships has increased the need for clear rules for budgeting and accounting treatment. For the accounting treatment of PPPs in national budgets and international comparable statistics, such as the national accounts, no comprehensive standards exist. Adding to the complexity, there are currently a plethora of PPP arrangements and no precise definition or delimitations.

The budget scoring and accounting treatment of PPPs might not always be seen as key features of PPP design, but they are. As discussed earlier, a project that is classified as a public-private partnership reduces capital expenditures for a government and replaces them with a stream of fees over the years covered by the PPP contract (a stream of payments that will often be classified as intermediate consumption). Given that capital expenditures

in the national accounts and often also in national budgets are accounted for as an expenditure when the investment actually occurs, taking the PPP route allows a government to initiate the same amount of investments in one year but record less expenditure at that time. On the other hand, the obligation to pay an annual fee will increase expenditures in the future, reducing the scope for new investment in coming years. Such a system puts high pressure on clear rules for how to account for different transactions such as public-private partnerships.

Taking the PPP route instead of using traditional procurement affects not only the amount, but also the timing of government expenditures; indeed, given their long-run nature, PPPs often lock in government expenditures for decades to come. Payments to the private partners in PPP agreements not only include the payment of recurrent fees (paid in exchange for services), but may also include the payment of a capital contribution by the government in cases where the private partner cannot or will not provide all the required capital. Government spending might also be affected if the government provides guarantees and thus incurs contingent liabilities. In addition, many countries have fiscal rules that set deficit or surplus targets, or impose debt limits or expenditure ceilings on the government sector, thereby limiting the scope for government spending. Such government spending can include the payment of fees to private partners in PPP agreements.

The system of government accounting should provide a clear and true record of all PPP activities in a manner that will ensure that the accounting treatment itself does not create an incentive to take the PPP route (or, for that matter, the traditional procurement route). If accounting rules give a favourable treatment to public-private partnerships compared to traditional procurement, PPPs might be seen as the only option to be able to continue with a project. The accounting treatment will then undermine the primary reason why governments may consider using public-private partnerships – increased value for money. It is also important that budget scoring and the accounting treatment of PPPs enable international comparisons.

At present, no clear and comprehensive rules guide countries on how to account for PPPs. Steps have been taken in the accounting profession but, so far, the guidance is not enough. The absence of standards makes it possible to avoid normal spending controls and use public-private partnerships to circumvent spending ceilings and fiscal rules. The absence of standards may also create incentives to move investment that would otherwise be considered public investment off the government balance sheets. These circumventions include moving expenditure to future budgets, increasing government liabilities (explicit and/or implicit) and entering into guarantees to receive private financing, but with taxpayers bearing the risk of future

high costs. There is also a need for governments to incorporate national procedures in the budgeting systems to deal with arrangements such as PPP contracts. National budgets differ from country to country, and will continue to do so in the future. Nevertheless, governments should continuously update their national budgeting procedures and systems to ensure a focus on affordability, value for money and long-term fiscal sustainability, and thereby reduce the scope for accounting and budget rules to affect the choice of the mode of delivery of a service.

1. How public-private partnerships are budgeted and accounted for

National budget systems differ between countries: for example, most countries budget on a cash basis, others on an accrual basis, and some use a mix of cash and accruals. National accounts and government finance statistics, on the other hand, use international standards. The 1993 *System of National Accounts* (SNA93) (United Nations *et al.*, 1993) and the *European System of National and Regional Accounts* (ESA95) applicable to European Union countries (Eurostat, 1995) are the standards often used.[1] ESA95 is also complemented by the *ESA95 Manual on Government Deficit and Debt* (Eurostat, 2002) which goes into more detail on how to account for and treat government transactions. SNA93 and ESA95 predominantly use accrual-based accounting. The latest version of the government finance statistics (IMF, 2001) is a largely accrual-based system, reducing earlier differences between the national accounts and the 1986 version (IMF, 1986). (For a brief description of the government finance statistics – GFS – see Box 4.1.) These standards give some guidance on how to record transactions similar to public-private partnerships such as operational and financial leases, liabilities and guarantees.

Even though accounting practices differ in national budgets and in the national accounts, they have many of the problematic issues related to public-private partnerships, including budget scoring, accounting, treatment of guarantees and liabilities (explicit or contingent), fiscal risks, long-term projections, and sustainability analysis.

Transparency is a key element in budgeting and in good governance, and it applies in particular to complex transactions such as public-private partnerships. An accurate accounting treatment requires clear procedures and practices on how to deal with PPPs, while simultaneously allowing for differences between countries.

Box 4.1. International Monetary Fund government finance statistics

The 1986 government finance statistics framework (GFS) was a cash-flow based system that, among other things, did not record the depreciation of government assets. In 2001, the IMF launched a new GFS framework that is largely an accruals-based system, although it also includes a cash-flow statement. As such, the new system allows for the depreciation of government assets. Given that the accruals-based component requires a full income and expenditure statement, as well as a balance sheet for the government, the new GFS system requires more data than the old one. As a result, several governments are only gradually implementing it, with some at present merely reporting the cash-flow statement (which is most closely related to what was reported under the old GFS system). As described above, the accounting framework that governments use for national budgets differs from the national accounts and internationally comparable data, with national budgets still to a large extent on a cash basis.

Neither the conventional deficit calculated according to the old GFS system nor the cash deficit calculated according to the new GFS system includes depreciation, nor do they record the large initial capital outlay as an expenditure in the year that the cash flows out of the government's account.

Sources: IMF (1986), *A Manual on Government Finance Statistics,* and (2001), *Government Finance Statistics Manual 2001*, International Monetary Fund, Washington DC.

The "OECD Best Practices for Budget Transparency" (OECD, 2002) highlight several features that are important for PPPs, including:

- The budget should be comprehensive, encompassing all government revenue and expenditure.
- Long-term reports and sustainability analysis are of key importance.
- Financial and contingent liabilities (for example, loans and guarantees) should be reported and the possible impact assessed. In the case where it is difficult to estimate the quantity of contingent liabilities, they should be listed and described.
- Accounting rules and policies should be described clearly, and discrepancies with generally accepted accounting practices should be disclosed.

As the amount that the government pays to the private partner often varies from period to period[2] depending on the terms of the contract, it is necessary to also conduct a sensitivity analysis and estimate what the government might end up paying in a worst case scenario. In addition, if a PPP contract is funded to a significant extent by user fees (without making it a concession), public-private partnerships might be an option for the

government to bring in extra revenue (paid to the private operator or to the government, depending on the contract) without raising taxes by moving expenditure that was previously government expenditure to users. Monteiro (2005:76) notes, for instance, that because of budgetary pressure in Portugal there is a move to replace shadow tolls with real tolls in highway PPPs. If this is the case, it is important that this way of financing projects does not become a more important issue than affordability and value for money when deciding if a project should be handled through traditional investment and procurement or through a public-private partnership.

In countries with fiscal rules and budgetary and spending limits, the scope for traditional procurement of assets may be limited, leaving the PPP route as a preferred option. The ways in which fiscal or budgetary rules are defined, and how accounting treatment is defined, might divert attention away from value for money as the primary motive for taking the PPP route.

As this book has already highlighted, the key feature of a successful PPP is risk sharing, and risk is also the key factor in determining how to account for public-private partnerships. The IMF (2004) argues that, if a government continues to carry the majority of the risk in a project, the government is the economic owner of the asset even in cases where the private partner is the legal owner of the asset. As such, the asset should be recorded in the government books and not in those of the private partner. In addition, the project should also be classified as a financial lease and not a PPP. It then also follows that if the private partner carries the majority of the risk, the asset should be recorded in the books of the private partner.

Many operations similar to PPPs are covered by existing reporting and accounting standards. These operations include regular procurement contracts (purchase of goods and services), equity stakes, guarantees, build-and-deliver contracts, financial and operating leases, concessions, and the transfer of capital assets (see Box 4.2; see also IMF, 2006).

An issue that needs to be dealt with in the future, as it also affects the budget scoring and accounting treatment of public-private partnerships, is the actual long-term expenditure commitment of the government when it concludes a PPP contract. Such a long-term commitment has a number of dimensions that cause the future expenditure resulting from a PPP contract to display characteristics similar to those of a liability.

Box 4.2. Treatment of regular procurement contracts, equity stakes, guarantees, build-and-deliver contracts, financial and operating leases, concessions, and the transfer of capital assets in national accounts

The accounting treatment of regular procurement contracts, financial and operating leases, concessions, and the transfer of capital assets is defined in ESA95 and the *ESA95 Manual on Government Deficit and Debt*.

Regular procurement contracts: Expenditures are normally recorded when the private partner delivers the contracted goods or services to the government.

Equity stakes: Involves the creation of a joint venture in which the government and a private partner have equity stakes. If the government is assumed to exercise control over the unit, it shall be considered part of the government sector and its transactions should be considered government transactions.

Guarantees: In order to support a private partner, the government may wish to guarantee its debt. Guarantees that are given on an *ad hoc* basis are regarded as contingent liabilities recorded off the balance sheet until the guarantee is eventually called.

Build-and-deliver contracts: The government contracts a corporation to build and deliver a capital asset. Government procurement of investments is considered expenditure when the asset is transferred to the government.

Financial and operating leases: The two types are treated differently in the national accounts, and the distinction depends on who receives the majority of risks and rewards coming from the leased property. An operating lease is usually a short-term contract (compared to the full economic life of an asset) where the lessee bears limited risk. A financial lease, on the other hand, covers most of an asset's economic life, and the lessee bears most of the risk associated with the item leased. A financial lease allows the lessee to finance the purchase of an asset, without strictly speaking acquiring it. National accounts see a financial lease as just a way of financing an investment and record the investment with the lessee, affecting its deficit and debt.

Concessions: Generally a case where the government, in agreement with a corporation, gives the latter the right to produce and sell a certain good or service. The private company generally charges the users directly for the use of services linked to the asset. Fees paid by the private company to obtain the concession, or other types of payment to the government, are recorded as government revenue.

Transfer of capital assets: If, at the end of the PPP contract, the asset is transferred without payment from the private partner to the government, the asset is recorded as government gross fixed capital investment. This transaction is balanced by a capital transfer from the private partner, with no overall impact on government deficit or debt. If the government pays for the asset, the amount paid is deducted from the capital transfer, with no overall impact on government deficit and debt.

Sources: Eurostat (1995), *The European System of National and Regional Accounts*, and (2002), *ESA95 Manual on Government Deficit and Debt*, The Statistical Office of the European Communities, Luxembourg.

First, a PPP locks in government expenditures. Once the contract is concluded, the government must pay the private partner according to the specifications of the contract. Depending on which party bears demand and supply risk, a long-term contract reduces the possibilities for the government to reallocate expenditures in future in the face of changes in demand for government services. Given the long horizon for PPP projects (often 20 to 30 years), a change in demand is something that should be expected. Although traditional government investment, either in house or through procurement, also locks in the government, it differs from PPP investment because it makes the government the owner of the asset, which enables the government – without renegotiating any contract – to change the way it uses the asset to improve value for money. With a PPP contract, the government must continue payment if the private partner fulfils its part of the contract, even when an alternative mode of delivery will deliver more value for money. Thus, more than with traditional investment, the future payment obligations that a PPP contract implies create an obligation on the part of the government to pay the private partner in the event that the private partner fulfils its part of the contract. Nevertheless, given that compliance with the contract by the private partner is not certain, the need to make the future payment to the private partner is not certain. Thus, the obligation to pay the private partner is akin to a contingent liability, the difference being that in the case of a contingent liability the payment is contingent upon an unexpected event, while in the case of a PPP contract it is contingent upon an expected event. Therefore, in principle the future payment obligations of a PPP contract can be treated as a liability calculated as the present value of future payments weighed by the probability that the private partner will deliver according to the specifications of the contract.

Second, if the government in future faces a need to reduce overall spending, either through specific spending cuts or across-the-board spending cuts, expenditure related to PPP contracts cannot be reduced without the renegotiation of the contract and the possibility that the private partner must be remunerated for damages that it incurs as a result of contractual changes. This eventuality highlights the need to include renegotiation clauses in contracts, which can be done in many ways – either a general renegotiation clause, or a clause stating that renegotiation can be done, for example, every five or ten years.

1.1. Treatment of public-private partnerships in national budgets

The appropriate moment for recording expenditure and revenue in national budgets depends on the accounting regime used by the country in question. Most national budgets are based on cash accounting, while some use accruals or a mix of cash and accruals (see, for example, IMF, 2006).

Cash methods record flows when cash is exchanged, either as revenue or expenditure, while accrual transactions are recorded when revenue or expenditure is incurred. Many countries that use cash budgeting also produce accounts on an accrual basis for financial statements, and countries using accruals also produce cash accounts to monitor cash flows and borrowing requirements.

One of the areas where large differences between cash and accrual accounting can occur is investment expenditure. In a cash environment, investments are recorded as expenditure up front when the investment actually takes place, either as in-house produced investments, or when payments are made to a contractor. With accrual accounting, the cash payouts for the investment are recorded in the analysis of cash flows and the balance sheet, while the depreciation of the asset is recorded in the accrual accounts.

For PPP projects, the payment from the government to the private partner is recorded in the accounts. If a national budget is on a cash basis, expenditure will decrease during the construction phase of the project, since the full investment expenditure is not recorded in the books. Instead, the annual payment will be recorded. If accrual accounting is used in the national budget, the difference might not be as significant, since accrual accounting already spreads the cost of the project over its economic life cycle in the form of depreciation.

However, as most countries use a cash basis for their national budgets, the different treatments of investment expenditure create a situation where appropriations for investments can be reduced in the near term as investments are outsourced to PPPs, at the same time as the government enters into a long-term commitment to pay a fee to the private partner over a number of years.

At the end of a PPP contract, the asset might be transferred to the government with or without the payment of a residual value, as specified in the contract between the government and the private partner. If there is a transfer of assets with a payment of residual value that is less than the market value, the difference is often recorded as a capital transaction below the line, *i.e.* it is not included in the reported deficit or surplus figure.

The use of market-type mechanisms such as public-private partnerships, instead of traditional procurement or in-house production, is a political decision. Given the unclear definitions and accounting rules related to PPPs, how to account for them in national budgets is also a political decision. Most budgets are cash based, and the way expenditure is budgeted follows regulations set out in the budget legislation or other documents. Public-private partnerships and other market-type mechanisms are now common

features of service delivery in many countries. Thus, there is a need to find a way to incorporate market-type mechanisms in the budget process to ensure affordability, value for money and long-term fiscal sustainability.

There is no simple solution, and countries have faced this issue in different ways. Actions can include accounting for the full long-term cost of public-private partnerships on a cash basis, capping the annual fee that the government pays for PPPs (although this might give an advantage to user-fee PPP projects), or setting an overall contract value limit for public-private partnerships. Korea, for example, reports fees for PPP projects in its annual budget, but also the total investment amounts of PPPs; the Netherlands reports the full cost of PPP projects on a cash basis; and in the United Kingdom, the on- or off-budget decision is based on the individual contract, with the result of an approximately 50-50 split between on- and off-budget PPP projects.

1.2. Treatment of public-private partnerships in the national accounts

The definitions in the national accounts system differ from those in the national budget and the government finance statistics (see Box 4.1 above for a description of the GFS). The national accounts system is a widely used tool in both the national and the international context. In the national accounts, transactions are accounted for when the underlying economic activity takes place. For investments, gross fixed capital formation is recorded as expenditure when the fixed asset is transferred to the institutional unit that will use it in its production. Investment goods produced in house are accounted for as investments when they are produced, while procured investment goods are recorded when the ownership is transferred to the government.

National accounting rules and standards should be set up in a way to reflect transparent treatment and reporting of all costs and risks associated with a project (see Box 4.2 above, regarding the treatment of, among other things, regular procurement contracts, equity stakes and guarantees). However, given the broad variety of contracts for public-private partnerships, it is hard to specify a set of rules that cover all aspects of PPPs and leave no room for misinterpretation. In the end, without full political support for getting the best value for money out of public spending – *i.e.* giving priority to value for money over budgetary and accounting rules – there will always be PPP projects that reverse the priority.

Due to the increased interest and use of PPPs, Eurostat clarified its views on public-private partnerships in 2004 (see Box 4.3; see also Box 1.1

above for definitions of PPPs). The new decision focuses on the sharing of risk as the main criterion for classifying a PPP as a government asset or private asset. If too little risk is transferred to the private sector, the PPP will be considered in the national accounts as government investments. The key to defining a PPP as on or off the government books depends to a large extent on the sharing of risk. The Eurostat decision states that a project shall be classified as a PPP and recorded as investment outside the government sector if the private partner bears the construction risk and either the availability or demand risk. This criterion is rather loose, as a large part of the risk still lies with the government if it bears the full availability or demand risk. As construction and availability risks are often borne by the private sector in traditional procurement projects, there is a danger that many projects where the government still bears a large part of the risk will be classified as PPPs (see also IMF, 2006).

Although there are some similarities between the Eurostat and IMF definitions of public-private partnerships, there are also important differences. The IMF definition emphasises that, for a project to be classified as a PPP, a significant part of the risk has to be transferred to the private sector (IMF, 2006). As mentioned, in traditional procurement the private sector usually bears the construction risk and the availability risk whereas, to be considered as a PPP, even more risk must be transferred for optimal risk sharing. The IMF also highlights the issue of residual risk, *i.e.* who bears the asset value risk. If the asset is transferred to the government at a value other than the market value, the government bears this ownership risk. If that is the case, this residual risk clearly increases the risk carried by the government sector.

As mentioned in Chapter 3 (section 1.3), risk should be borne by the sector that is the best suited to carry it. An optimal division of risk will ensure the best value for money from a project. At the same time, the fact that some projects will not be carried out unless they are classified as PPPs might cause governments to aim for a sharing of risk that will classify a project as a PPP even if the private party is not the best suited to carry the risk. The results will be an increase in project costs and the creation of long-term expenditure commitments for the government that will divert the PPP from the aim of improved efficiency and cheaper provision of goods and services. To limit the danger of accounting rules becoming the incentive or focus for deciding what projects should be pursued as PPPs, governments will need to establish strict rules and criteria.

Box 4.3. Eurostat decision on public-private partnerships

Due to growing interest in PPPs and a lack of clarity in how to account for them in ESA95, the Statistical Office of the European Communities (Eurostat) published a clarification of the accounting rules for PPPs. The decision applies to long-term contracts in areas where governments usually have a strong presence. Important features are initial capital expenditure of the private partner and output specifications.

According to Eurostat, the main issue in classifying a PPP investment on the balance sheet of the public or the private sector depends on who bears the most risk. The recommendation in Eurostat's decision is that assets involved in a PPP should be classified outside the government sector if both of the following conditions are met: *i)* the private partner bears the construction risk, and *ii)* the private partner bears either the availability risk or the demand risk.

The bearer of risk is not always easy to define, and contract design varies. In cases where it is not possible to classify a PPP as on or off the government books, other contract features can be considered, such as if the asset is supposed to be transferred from the private partner to the government at the end of the contract period and at what price. This event is also an important part of the risk sharing.

The Eurostat decision states that Eurostat does not examine the motives, rationale and efficiency of the partnerships, but only has a role in clear guidance on their treatment in national accounts and what impact the accounting has on government statistics. This might be true in principle, but at the same time the accounting rules should be strict enough to prevent contracts where the government has too much risk from becoming projects accounted for in the private sector.

Source: Eurostat (2004), "New Decision of Eurostat on Deficit and Debt: Treatment of Public-private Partnerships", *News Release No. 18*, 11 February, The Statistical Office of the European Communities, Luxembourg.

2. Disclosure of fiscal risks and recording of guarantees and contingent liabilities

A PPP contract often contains substantial uncertainty as to what the government will eventually pay for the services provided. This uncertainty arises to a large extent from the way in which risk has been shared and from the obligations, guarantees or contingent liabilities the government has taken on as part of the contract with the private partner.

Since the contract between the government and the private partner usually includes specifications on when, how and how much the government shall pay for the provision of certain services, government obligations in a PPP contract can be more or less straightforward. However, with proper risk

sharing the amount will vary depending on the volume and quality of the services provided. This creates uncertainty as to the amount that the government will end up paying.

Guarantees are common in PPP contracts. A guarantee is a legal obligation for the government to pay out a known or unknown amount in the case of a specific event. For example, the government may guarantee a certain amount of the private partner's debt and, if the private partner cannot fulfil its obligations to repay the debt, the government has to step in. The government may also guarantee a minimum revenue flow to the private partner and thus be obliged to pay a certain amount if the private partner is not able to collect the revenue itself.

Some obligations and guarantees give rise to contingent liabilities. A contingent liability is an obligation that may be payable in the future. The difference between a real liability and a contingent liability is the probability of having to make the payment. If the probability of payment is high, the contingent liability becomes a real liability.

There are also implicit contingent liabilities associated with some projects. Although there are differences between countries, the government acts as the provider of last resort in some areas. This means that the government, notwithstanding the contract, is expected to step in and take over the provision of certain services if a private company fails.

An obligation in the form of a guarantee or contingent liability, including implicit liability, does not show up in the balance sheet of the government. The guarantee or liability is only recorded when it becomes explicit, or real.

The existence of different obligations does not necessarily mean that too little risk has been transferred to the private partner. As mentioned, the optimal transfer of risk does not mean that all risk is transferred to the private partner, but that the partner most suited to bear the risk bears it. Some specific risks could be best managed by being shared – for example, the government guaranteeing debt or a minimum level of revenue. Whether or not this is the most effective way of sharing risk has to be judged individually by project.

Due to the risks associated with PPP contracts, budgets and accounts must fully disclose actual and potential future payment obligations. It is also important to include information on how the contracts affect cash flows, on the risk of increased payments due to guarantees and contingent liabilities, and on whether the assets will be transferred to the government at the end of the contract period.

Recording guarantees, contingent liabilities and other obligations while not fully measuring them is one way of providing information on future fiscal risks and simultaneously acknowledging the difficulty of calculating the future cost, given the uncertainties. Therefore, recording these obligations is often seen as the way to at least provide information on the amounts that are guaranteed, even though appropriating the cost of a guarantee would be preferable.

There are several methods for estimating the value (or potential cost) of guarantees. These methods range from simple estimations on the basis of historical values and the government's history of called guarantees, to more complex methods (see, for example, IMF, 2006).

3. Fiscal risk and guarantees

The uncertainty about whether or not the government will have to pay, as well as the amount it will have to pay, is the main difficulty in dealing with guarantees and contingent liabilities. The fact that the amounts are not recorded as government expenditure or debt until the guarantee is actually called may raise fears as to whether or not fiscal policy is truly sustainable at current levels of revenue and expenditure.

Since a guarantee is not expenditure *per se*, rules and regulations in the budget process might be less strict about accepting a guarantee compared to an appropriation. At the same time, the guarantee creates a contingent liability for the government if it is called. This gives rise to a number of problems:

- If it is relatively easy to get approval for a guarantee, guarantees might be used to share risk even when they are not the most efficient instrument for doing so.
- Since a guarantee is not recorded as expenditure, it might be used as a way to bypass spending controls or budget balance requirements.
- Eventual calls on guarantees lie in the future and, especially in the case of long-term guarantees, a lax policy on accepting guarantees may lead to significant risks for fiscal sustainability if many guarantees are suddenly called.

These problems highlight the importance of clear budget rules and the disclosure of information on government guarantees and contingent liabilities.

The amount of risk that the private partner is willing to carry depends on whether or not it can price the risk and on what the government in its turn is

willing to pay for the private sector to take on the risk. The private partner may choose to bear the risk itself or to take out insurance against the risk. For some risk, and depending on its calculated price, insurance might be difficult to find. The private partner may then be unwilling to bear the risk unless it is either paid to carry it or the government extends a guarantee. The government may prefer to give the guarantee instead of paying the private partner more.

In cases where the government extends a guarantee, it is important to be transparent about the fact that the guarantee is actually a subsidy, since insurance would have been associated with the payment of a fee to an insurance company. To make the actual cost of a guarantee visible, one way is to calculate the actual cost of the guarantee, taking into account the probability that the guarantee will be called as well as the amount guaranteed, and appropriate this amount in the budget. If there is no market for the specific risk insurance, there must still be an approximation of the cost of giving the guarantee. Sweden provides an example. The Swedish National Debt Office is responsible for central government guarantees. If the government gives a guarantee to a private company, the company must pay a fee that is supposed to cover the government's contingent liability. The fee is supposed to be market based (even though, as discussed, there might be no real market). If the government gives the guarantee as a "subsidy" to the private partner, the amount is appropriated in the budget.

To ensure that guarantees are controlled and that total amounts do not become too large, thus creating too much risk for the government, there should be clear rules and disclosure of guarantees. These include:

- one authority responsible for monitoring and managing a register of guarantees;
- the requirement of approval by the ministry of finance, cabinet and/or legislature prior to accepting a guarantee;
- integrating guarantees into the annual budget process;
- appropriating the estimated cost of a guarantee in the annual budget.

In the last decade, long-term analysis of public finances has become increasingly more common. High expenditure ratios and an ageing population that puts upward pressure on expenditures in many countries have increased the focus on the long-term sustainability of public finances. Long-term projections show how revenues and expenditures will develop, given present policy, and indicate how present policy will constrain public finances in the long term. These long-term projections are a tool that can give an early warning should current policy seem to be unsustainable in the

long term. Long-term projections and sustainability analysis include several different methods such as projections of revenues and expenditures, balance sheet analysis, present value calculations, and generational accounting, to mention a few.[3]

Government contingent liabilities are one of the many uncertainties in long-term projections. Public-private partnerships are long-term contracts where the government takes on a contractual obligation and sometimes – in the case of implicit contingent liabilities – a non-contractual one. Given the uncertainty of some of these obligations, and their occasional large size, it is important to incorporate them in long-term sustainability analysis. As the outcome is uncertain, it is important to include sensitivity analysis to make sure that the government is able to manage an unfavourable development of obligations in general, including obligations through public-private partnerships.

Guarantees can be seen by governments as a way to reduce spending today. At the same time, guarantees increase the risk for future expenditures by the government, sometimes quite significantly. Nevertheless, guarantees are occasionally viewed as a necessary feature of a PPP contract involving risk sharing. The optimal risk sharing between the government and the private partner is a combination of factors of which guarantees can be but one part. To see if a PPP should be classified as government investment or private investment, and how the project should be budgeted and accounted for, it is important to include the guarantees in the overall assessment of who bears the most risk.

Notes

1. ESA95 is consistent with SNA93, but with some differences in details and specifications (see Eurostat, 1995).
2. The payment for a highway PPP, for example, can be based on the number of users of the highway.
3. Long-term projections and fiscal risks are further elaborated in Ulla, 2006.

ISBN 978-92-64-04279-7
Public-Private Partnerships:
In Pursuit of Risk Sharing and Value for Money
© OECD 2008

Chapter 5

Managing the Creation of Public-Private Partnerships: The Role of PPP Units

Building proper institutional capacity to create, manage and evaluate PPPs is a critical element in supporting efficient PPP schemes. This institutional capacity can be seen in the large number of countries that either have PPP units or are in the process of establishing such units (see PricewaterhouseCoopers, 2005:45, on the prevalence of such units in the European Union). A PPP unit is usually located within the finance ministry or treasury. This chapter will discuss the rationale for having a PPP unit and examine its role in more detail. The discussion will then turn to the need for expertise in such units.

1. The rationale for a dedicated PPP unit

Several reasons support the creation of a dedicated PPP unit. These include:

- to ensure that departments deal properly with PPPs in terms of their budgets and do not succumb to the fallacy that PPPs increase the ability of the government to spend more;
- to ensure that government departments do not engage in "free rider" behaviour whereby they commit the government as a whole to honour future payment obligations that the individual departments know they cannot honour through their own expected future budget allocations;
- to provide a knowledge centre that government departments and other government entities can use when they set up and contract for PPPs;
- to regulate the creation of PPPs by government departments and other government entities to ensure that they fulfil all requirements regarding affordability, value for money and risk transfer;
- to separate PPP practice and policy.

First, the danger exists that, due to the off-budget nature of PPPs, departments do not fully appreciate the budgetary implications of public-private partnerships. In particular, a government department may reason fallaciously that, because a private partner is responsible for the initial capital outlay, government spending is reduced, thereby allowing the department to spend more on other categories of expenditure. This fallacious reasoning generates the risk that lack of knowledge about the financial

intricacies of PPPs may lead government departments to overcommit financially. Because a PPP unit acts as a regulatory body within the government, but at arm's length from the departments that want to implement PPPs, the unit can prevent procedures based on such a fallacy from taking hold, by monitoring and judging the affordability of projects.

Second, where departments do fully appreciate the budgetary implications of PPPs, there may still be principal-agent and "free rider" problems. These problems may arise between an individual department that is only responsible for its own budget and the ministry of finance that is responsible for the overall budget. An individual department knows that ultimate responsibility for any agreement that the department may conclude rests with the government as a whole. These agreements include payments in PPP contracts. Therefore, since central government as a whole will have to honour PPP payments, a department may commit to an agreement while it knows that its own budget allocation from the central budget will not be sufficient to make the payments. A dedicated PPP unit could prevent such "free rider" problems by requiring departments to demonstrate that future payments will fall within their budgetary allocation. Once the government is satisfied by the department's proof, the PPP unit can issue an approval. Such approval will then constitute a precondition for the final conclusion of the PPP agreement.

Third, a dedicated PPP unit may be established to create a knowledge centre that can provide individual departments with technical assistance when they set up PPPs. The Dutch PPP Knowledge Centre (see Box 5.1) is a good example. The knowledge necessary for setting up PPP contracts is not always found among existing government staff. When entering into complex transactions like PPPs, it is important for the government to ensure that it has the necessary skills to negotiate on equal terms with the private sector, particularly since the private sector might be more familiar with complex financial deals. As salaries are often higher in the private sector, it is also necessary for the government to not only attract qualified staff, but also to retain them. Within a traditional rigid civil service system, this might be a complex issue in itself. In addition, the PPP unit needs resources to bring in consultants on an *ad hoc* basis. The use of consultants might also be an efficient way to handle some of the responsibilities for managing peaks in the demand for the services of the PPP units.

Fourth, a PPP unit could also keep an eye on departments through its regulatory approval mechanism to ensure that PPP deals fulfil all the legal and technical requirements involved in the creation of public-private partnerships. The provision of regulatory approval as well as the provision of technical assistance constitute the main functions of most PPP units,

including those in Australia, South Africa and the United Kingdom (for more on the Australian and South African PPP units, see Boxes 5.2 and 5.3).

Box 5.1. The PPP Knowledge Centre in the Netherlands

"A PPP Knowledge Centre was established within the Ministry of Finance in 1999 and is staffed by experts from commerce and industry as well as government civil servants. Its remit is to disseminate PPP experience, to design clear and effective rules for collaboration between the government agencies and the private sector, to suggest appropriate projects for PPPs, and to produce regular reports and studies on the results of PPPs. As the agency responsible for infrastructure (the *Rijkswaterstaat*) and the Government Buildings Agency become increasingly familiar with PPP projects, it is likely that the PPP Knowledge Centre will focus on developing PPPs in other sectors such as education and healthcare."

Source: PricewaterhouseCoopers (2005), *Delivering the PPP Promise: A Review of PPP Issues and Activity*, PricewaterhouseCoopers, London, page 41.

Fifth, the PPP unit can help separate policy from practice, *i.e.* the PPP unit is responsible for PPP policy, advice and oversight, but the spending ministries are responsible for promoting actual projects. There will thus be less danger of the PPP unit becoming a promoter of PPPs. The main task of the PPP unit is not to advocate PPP projects, but to ensure that transaction costs are as low as possible and that value for money is the main criterion. If a PPP unit is also responsible for the projects, there would be a conflict of interest, since the unit might end up in a situation where it is responsible for both overseeing and executing a project. As such, a PPP unit might promote PPP projects merely to justify its existence, causing it to lose its focus on value for money.

A dedicated PPP unit that serves as a centre of expertise also increases the confidence of potential private sector partners. In this respect, Ahadzi and Bowles note:

> …it is not surprising that the private sector is more concerned to see an established PPP unit within the client organisation. A PPP unit suggests an experienced and able client team that has the power and authority necessary for an effective negotiation process. The absence of such a team may raise concerns about the public sector's project management strengths. This will be particularly pertinent where the functions of the public sector client are fragmented across a number of departments. (Ahadzi and Bowles, 2004:976)

Box 5.2. Partnerships Victoria, a PPP unit in Victoria, Australia

Partnerships Victoria provides the overall policy framework for the Victoria state government in the provision of public services through public-private partnerships. The focus on whole-of-life costing, full consideration of project risks, optimal risk allocation between the public and private sectors, value for money assessment and protecting the public interest are key features of the policy. Since 2002/03, approximately 10% of Victoria's public investments have been pursued through Partnerships Victoria.

Partnerships Victoria is the centre of expertise in the PPP area and its role is to be responsible for the policy framework and to assist with key competence. The primary roles of Partnerships Victoria are to: *i)* develop policy; *ii)* play an advisory role in project implementation; and *iii)* set policy and give advice on contract management. For individual projects, Partnerships Victoria provides commercial expert advice, ensures that policy issues are identified and addressed, monitors budgetary issues, maintains the integrity of its policy framework, and facilitates Treasury approval of good projects.

Overall, Partnerships Victoria has an active role in PPP projects without being the owner, but providing policy guidelines and expertise. To improve competence both for the public and the private sector, Partnerships Victoria conducts relevant courses and training. The minister responsible for Partnerships Victoria is the Treasurer, and relevant line ministers are responsible for initiating and implementing actual projects. The project approval process includes four key points where the Treasurer's approval is necessary for a Partnerships Victoria project to continue to its next phase. These four points are: *i)* funding approval; *ii)* approval to invite expression of interest; *iii)* approval to issue a project brief; and *iv)* submission of contract management strategy and arrangements. The responsibilities of the Treasury include the approval of funding and having the minister responsible for Partnerships Victoria bring overall budget issues into the project discussion.

Sources: State of Victoria (2007), "Partnerships Victoria", *www.partnerships.vic.gov.au*; J. Fitzgerald (2006), "Partnerships Victoria", presentation at the OECD/Spanish Ministry of Finance Symposium on Agencies and Public-Private Partnerships, 5-7 July, Madrid.

One aspect regarding the role of the typical PPP unit, such as those in Australia, South Africa and the United Kingdom, is that PPP units are not responsible for the management of PPP agreements once they are signed and the pre-contract period is over. The day-to-day management responsibility typically rests with the individual government department and is not the responsibility of the PPP unit.

As the Australian example indicates, PPP units can exist at several levels of government. Partnerships Victoria is a PPP unit at the state level. Similar state-level PPP units also exist in other Australian states while, in the United Kingdom, Scotland and Wales have their own PPP units. The United Kingdom example shows that lower-level government units can coexist with a national unit. The existence of units at more than one level of

government requires a clear differentiation of their roles and regulatory powers; it may also require a formal delegation of powers from the central unit to units at lower levels.[1] Whether the bulk of expertise and especially regulatory power rests with the central or lower-level units clearly depends on the type of government in a country, with federal constitutions allowing for more regulatory power at lower levels of government.

Box 5.3. The public-private partnership unit in the South African National Treasury

The South African PPP unit was established in 2000 and oversees the creation of PPPs at the national and provincial government levels. In 2006/07, public-private partnerships represented 5.5% of total general government investments in infrastructure. Though focusing primarily on the pre-contract period, the PPP unit provides technical assistance throughout all six phases of the PPP project life cycle: *i)* inception, *ii)* feasibility study, *iii)* procurement, *iv)* development, *v)* delivery, and *vi)* exit. During the inception phase, departments and provinces must inform the PPP unit of their intent to set up a PPP. They must also inform the PPP unit of their available expertise and appoint a project officer and team. The availability within a department or province of capacity and skills to create and manage a PPP is of fundamental concern to the PPP unit.

The inception phase is followed by a feasibility study. This study must clarify the function that the private party will perform and include an analysis of the needs that will be addressed and the options available to the government. The feasibility study must pass the three regulatory tests of affordability, value for money and risk transfer. The PPP unit applies these tests in what is called Treasury Approval:I, which takes place after the feasibility study has been completed. This approval is needed before the department or province may proceed with the procurement phase.

The feasibility study entails several stages. First, the department or province must ascertain the need for the service it contemplates delivering. This is done prior to the decision about whether the conventional method or a PPP will be used to deliver the service. Subsequent to the needs analysis, the department or province must consider the various options through which the service can be delivered. These options may include a PPP but also the conventional procurement method. Affordability constitutes a key aspect of this stage. Subsequent to ascertaining the various options, due diligence and a value assessment must be made of the project.

The value assessment is a very rigorous process that includes the compilation of a base public sector comparator (PSC), a risk-adjusted PSC, a PPP reference model and a risk-adjusted PPP reference model. After the construction of these models, a sensitivity analysis is performed. Following these stages, a budget must already exist for the project. This budget is analysed to ascertain affordability and value for money. The feasibility study is then submitted for approval by Treasury Approval:I.

Box 5.3. The public-private partnership unit in the South African National Treasury *(cont.)*

During the procurement phase, two more Treasury approvals take place. In what is called Treasury Approval:IIA, the PPP unit approves the procurement documentation, including a draft of the contract, whereafter the department can proceed with the procurement process. Procurement takes the form of a bidding process. After the bidding process, the department or province needs to evaluate the bids. Before the department or province can appoint the preferred bidder, it needs to submit a report to the PPP unit demonstrating that, in its evaluation of all the bids, it applied the criteria of affordability, value for money and substantial risk transfer. The department or province must also demonstrate how the preferred bidder fulfils these criteria. This report forms the basis for Treasury Approval:IIB.

Following Treasury Approval:IIB, the department or province finalises the details of the contract, draws up a management plan to manage its part in the PPP and completes due diligence on all the parties concerned to establish their competence and capacity to enter into the agreement. Before the contract can be signed, the PPP unit must issue Treasury Approval:III in which it confirms that the contract meets the requirements of affordability, value for money and substantial risk transfer. After the contract is signed, no further approvals are needed from the PPP unit. Should any party contemplate any significant changes to the agreement after it has been concluded, the PPP unit must approve the changes.

Source: For more on the South African PPP unit, see Module 4 of the *National Treasury PPP Manual* (2004), *www.ppp.gov.za*.

As described in Boxes 5.2 and 5.3, the PPP units in the Australian state of Victoria and in South Africa are central competence centres that provide guidelines and assistance to line departments responsible for projects, and give approval to projects at certain stages of the pre-contract period.

2. The need for expertise in PPP units

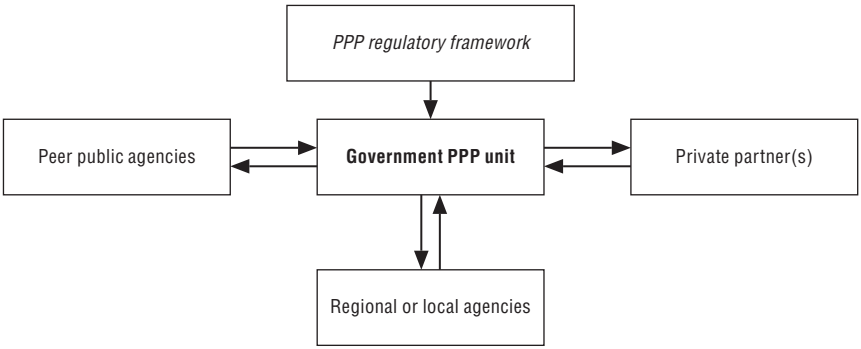
In the European experience, the PPP initiative is driven by a core of PPP experts who have developed multi-layered competencies (EIB, 2004). These competencies are needed because of the complex elements involved in PPPs:

- development of a legal and regulatory framework conducive to PPPs;
- project initiation and solicitation;
- pilot programme management and evaluation;

- attracting potential partners and investors;
- building trust and goodwill with private partners;
- PPP valuation (value for money and the public sector comparator);
- political risk management through advocacy within the government and with the general public;
- project management, performance monitoring and contract management.

It is necessary to build a set of multidisciplinary competencies covering accounting, economics and law, as well as technical skills in specific sectors to assess value for money. Figure 5.1 shows that the PPP unit does not operate in isolation from the rest of a country's regulatory framework. As such, the unit must engage with peer agencies, agencies at lower levels of government, and private parties affected by the regulatory framework under which all agencies and private parties operate.

Figure 5.1. Institutional capacity to negotiate with stakeholders



The establishment of a PPP unit often takes places within the core guidelines of a PPP regulatory policy framework, some suggested principles being clear objectives, political risk management and ethical accountability. Within the regulatory framework, the transition from a top-down command mentality to that of a negotiating partner requires agencies to develop capacities such as:

- dedication to a new mode of governance where partnership rather than bureaucratic enforcement is the new *modus operandi*;
- development of technical expertise in *ex ante* and *ex post* assessments, negotiation, and industry experience;
- ability to introduce incentive-based regulations;
- capacity to co-ordinate and negotiation horizontally with peer agencies/ministries, and vertically with regional and local agencies.

Note

1. Also, in some countries, sub-national levels of government might need the approval of the central government to borrow. In such a case, central government approval might also be needed to enter into long-term contracts such as PPPs.

ISBN 978-92-64-04279-7
Public-Private Partnerships:
In Pursuit of Risk Sharing and Value for Money
© OECD 2008

Chapter 6

Policy Framework and Procedural Tools

The policy framework represents a critical factor for public-private partnerships even if much of the analysis tends to focus on the economics, risks and financial perspectives of PPPs. Successfully conceiving and implementing large projects such as public-private partnerships cannot occur in isolation, particularly since governments create these partnerships within a particular policy context and framework. This chapter discusses three such contextual issues, namely: the need for political support and the risk implied by its absence; corruption and ethical issues; and the regulation of PPPs.

1. Political support and engaging with all stakeholders

Public support and consensus building are critical to ensure the success of public-private partnerships, especially when PPPs provide key public services such as transport or access to water. Consultations with and winning the support of stakeholders such as the public or employees affected by the creation of public-private partnerships are an integral element of the policy framework. If public opposition is significant, support from political authorities for PPPs may also waver, thus increasing the political risk of the public-private partnership. Such greater risk might dissuade private sector participation in PPPs, thereby reducing the level of competition for the PPP project and undermining the pursuit of value for money. Therefore, in addition to performing the *ex ante* financial and risk analyses, a further *ex ante* exercise for a government department wishing to create a public-private partnership is to engage with all possible stakeholders, both inside and outside of government, to ensure political support.

Political commitment from the highest authorities is crucial not only for playing the role of the project champion who can convince the public that PPPs can bring promised benefits, but also for assuring private actors that political commitment will be consistent in the long run and that political risks are minimal. The long-term nature of PPP contracts means that they will be in force in most cases for a length of time that can include many elections. Thus, political support and commitment must stretch over party lines so that the private partners know that political support will be continued no matter who comes to power in the next election. Weak political support has three consequences. First, it means that the government will not make the legislative changes necessary for creating a strong PPP framework. Second, the private sector will be reluctant to participate in PPP projects. Third, even if public-private partnerships are created, shifting

policies that amend the PPP contract or harm PPP performance will oblige the government to compensate the private partner for the costs that these changes create, thereby undermining the value for money of the public-private partnership.

Building on prior success is important for winning public approval and thus mitigating the political risk. Conversely, PPP projects that go awry make future proposals difficult. For example, in the United States a lawsuit was brought against the Washington city government by a developer who felt he was unfairly passed over for a PPP project to redevelop the former site of the Washington Convention Center. The city settled the lawsuit by agreeing to pay USD 35 million, but this result affected the city's reputation regarding PPP management and the credibility of public-private partnerships in the eyes of the public (HDR, 2005).

Because of the importance of the services that many PPP projects deliver, PPP proposals often face opposition for a variety of reasons. Some criticism of public-private partnerships arises from confusion with privatisation, overlooking the fact that PPPs involve a strong role for government in setting objectives. In some countries where there is public aversion to privatisation or to funding public services through fees, public-private partnerships might be seen as a middle way where the government – without full privatisation – tries to involve the private sector further in the provision of what was previously provided by the government. However, the opposition to PPPs may also be justified, particularly if a partnership under consideration is simply an inappropriate alternative to full public provision through traditional procurement. This is usually the case when a public-private partnership under consideration does not deliver additional value for money compared to a traditionally procured alternative.

Criticism may also be rooted in the suspicion that a profit-motivated private sector cannot provide public goods equitably without raising prices or sacrificing service quality. These critics typically raise the following concerns (HDR, 2005):

- Private actors profit from provision of what ought to be free public goods.
- Private actors selectively provide delivery of critical services, thus creating issues of access for users who are less wealthy or less able to access.
- Private entities are not as accountable to the public as the government.
- Private contractors take away government jobs.[1]

- There may be more corruption in the selection of and operation of PPPs (discussed in section 2 below).

The issues above point to the core challenge that makes or breaks PPPs: what role does the private sector play in the government's response to market failure? From a theoretical perspective, public sector infrastructure development has been the government's responsibility due to market failures arising from issues of economies of scale and natural monopoly. Government activities in the provision of infrastructure may also be subject to government failure – that is, the failure of the government to assess and provide the optimal level of infrastructure. In addition, and related to the issue of government failure, governments are not disinterested parties, but represent an aggregation of often conflicting agencies and bodies with different goals and policy agendas. Governments may face issues of cross-sectoral co-ordination, consistency of commitment over time, and lack of internal capacity.

An additional problem that might undermine political support is that PPP contracts are incomplete; within the framework of optimal measurement, allocation and pricing of risk, it is difficult to design a contract that combines profit motives with the delivery of public goods. It is made even more difficult by the fact that a PPP contract, like most other contracts, can never foresee all possible contingencies. The result is an incomplete contract agreement where, in the absence of strong accountability, the private actor responds to market changes in ways that inappropriately shift costs to the public sector (Davis, 2005). Thus, the potential negative effects of public-private partnerships, which are tantamount to PPP project failure, exemplify the need for a strong regulatory regime that the public can trust. Although the risks persist, they can be substantially diminished through a competitively-chosen PPP partner working within a robust regulatory framework which can ultimately deliver quality public services efficiently and equitably.

Governments implementing PPPs also need a convincing policy for managing employees' expectations and ensuring quality human resource management. This is especially the case when a PPP does not initiate a new service but takes over the delivery of a service that had been delivered by the government. In terms of the PPP contract, the civil servants involved in the delivery of the service prior to the conclusion of the new contract might be transferred to the private partner or special purpose vehicle (SPV). All other employees can be transferred to other government departments. However, unless those employees are productively applied in the departments to which they are transferred, comparing the cost of the PPP with that of traditional procurement will provide a biased assessment in favour of the PPP if the wage cost of the transferred employees is not

included in the comparison.[2] Because civil servants in many countries are employed under different contracts than private employees, the transfer of civil servants might face resistance among employees.

The transfer of civil servants to the private partner/SPV should be managed in a way that preserves their wellbeing. This precaution may ensure their support for the PPP and also improve productivity. Preserving the wellbeing of the transferred civil servants may require the creation of guidelines and legal frameworks, such as those in the United Kingdom, that ensure fair job transitions for public employees affected by PPPs. For example, since 1997 the United Kingdom government has expanded its worker protection efforts beyond the minimum stipulations of the 1981 Transfer of Undertakings (Protection of Employment) regulations (called TUPE; see Box 6.1). The worker protection policy in the United Kingdom is now bound by the following principles (HM Treasury, 2003b):

- open and transparent communication with staff, including participation in the contracting process;
- protection of the terms and conditions for both transferees and new workers;
- protection of pensions that covers both public and private transfers;
- retention of flexibility in the delivery of public services.

Some concerns raised by PPP critics can be addressed through a clear explanation of the terms and conditions of public-private partnerships, including the existence of strong public sector oversight. Other issues like service control, fair price and equitable access to facility use are serious and legitimate concerns that require strong regulatory frameworks to ensure quality PPP delivery. The threat of corruption constitutes another significant threat that a PPP policy framework would need to take into consideration.

2. Corruption and ethical issues

The risk of corruption in public-private partnerships represents an area of serious concern, but one where research has been sparse. Because competition may largely disappear once a PPP contract has been concluded, competition in the bidding process is the only opportunity to ensure the selection of a qualified contractor. Corruption in the bidding phase would seriously undermine the integrity and capability of the PPP to deliver benefits. According to the OECD, corruption occurs when a contract is not awarded to the bidder who offers the lowest price or the best value for money, but to the bidder offering a bribe (OECD, 2005a). When corruption

occurs, the public sector procurement process is damaged because it permits personal gains that create market inefficiencies. Ultimately the public pays more for poorer quality of service (OECD, 2005a).

Box 6.1. The United Kingdom worker protection framework: Transfer of Undertakings (Protection of Employment) (TUPE) and the fair deal

"In broad terms, TUPE protects employees' terms and conditions of employment when the business in which they work is transferred from one employer to another. The TUPE Regulations were designed to safeguard employees' rights when compulsorily transferred between firms. TUPE:

- guarantees transferees 'no less favourable' terms and conditions at the time they transfer from one employer to another;
- applies to second-, third-, and fourth-generation transfers as well as to the initial shift from the public to private sectors;
- is augmented by a Cabinet Office Statement of Practice, […] which requires that transferees from the public to the private sector be given 'broadly comparable' occupational pension rights as well."

Source: HM Treasury (2003), *PFI: Meeting the Investment Challenge*, The Stationery Office, London, page 70.

A lack of accountability represents a specific risk of corruptive behaviour because misbehaviour is not detected or faces no consequences if detected. In addition, in a changing environment even the best regulations to ensure transparency may become rapidly obsolete and inadequate, making it easy for the less scrupulous to circumvent them. Areas of concern in public procurement that relate to the presence of both corrupt and unethical behaviour[3] are the following (OECD, 2005a):

- **Information asymmetry.** The integrity of a fair and competitive bidding process can be undermined by the discretionary power of a public purchasing agent or a private bidder who possesses information not available to the government. This asymmetry may be exploited to further bureaucratic interests by overbidding when attempting to prevent budget reductions. Or, a purchasing agent may consult with a private firm for technical advice even when the firm is bidding for the contract. Thus, while the ultimate technical tender requirements and procedures are legal, they seem to fit precisely the specifications of a single firm (also see Box 6.2).

- **Contacts, informal networks and collusion.** While informal contacts and networks can help facilitate transactions for building trust between parties, they could also be abused to influence the bidding process. Bidders could collude to raise prices and restrict output. Networks could also be used to favour one competitor by unfairly disclosing tender procedures and requirements.
- **Conflict of interest on the part of public officials.** Public officials who sit at the nexus of public-private interaction may be susceptible to conflicts of interests. These conflicts might arise from personal financial interests, family ties, or post-employment considerations.
- **Political financing.** Politicians not directly involved in the bidding process may use their influence to sway bidding outcomes favourable to their political interests. Though not necessarily illegal, such activities may raise ethical questions. In some countries, though, it is illegal if a politician favours one firm in return for campaign contributions.

A number of lessons can be learned from the closely related literature on managing conflicts of interest in the field of government procurement. Procurement procedures in many OECD countries are effective in combating the most flagrant violations. However, public contracting is susceptible to biases and "grey zone" cases where corruptive influences are more subtle, particularly when the aim of the firm is not to secure a contract outright but to improve the odds of getting it. A classic example concerns the ethical and legal limits of marketing when companies make gifts to those who award the contracts.

A further problem that raises ethical issues is the threat of conflict of interest due to the high turnover rate between the public and private sectors. Many OECD countries are finding it increasingly difficult to compete with the private sector to attract the best employees, even though there is widespread support of private sector experience for public employees. For example, in the United Kingdom – although a large share of senior officials originate from outside the civil service – most of them eventually leave the civil service after four to five years on average, taking with them valuable insight and insider information which, if abused, could provide unfair advantages over competitors. If not managed, such abuse could undermine public confidence in the integrity of public officials and institutions and thus also undermine the trust and support for PPPs as a viable policy alternative (OECD, 2004 and 2005d).

Box 6.2. Procurement procedures and their exposure to corruption

According to a study by the Basel Institute on Governance commissioned by the World Bank and the Inter-American Development Bank, the following procurement stages were vulnerable to corruption and bribery:

- "The selection of consultants. Frequently, consultancy contracts fall below the threshold of competitive bidding, so that 'friendly' consultants can be chosen.
- The design and preparation of tender documents. Calculations can be manipulated so as to result in the explosion of specific costs during the execution of the contract.
- The actual bidding procedure. One needs to distinguish in particular the risk factors for competitive bidding, restrictive competitive bidding and direct acquisition. Even the rules of competitive bidding can be short-circuited by, for instance, the setting of a particularly brief timeframe, by insufficient publication, by biased design, etc.
- The decision phase.
- Finally, one should not under-estimate risks in the actual execution phase, for example the risk of change orders."

Source: OECD (2005), *Fighting Corruption and Promoting Integrity in Public Procurement*, OECD Publishing, Paris, page 20.

Most OECD countries have passed legislation to prevent conflicts of interest regarding former civil servants in post-public employment (without excessive restrictions that would unnecessarily prevent hiring talent), although the specificity and stringency of provisions vary. The legislation generally focuses on the public officials and not so much on the companies for whom they might work. Governments have also resorted to various schemes that establish time limits or a "cooling off" period, ranging from six months to five years, before someone can cross from the public to the private sector (or *vice versa*) while still working on the same type of project. However, although the governments of OECD countries have strong regulations to discourage post-public employment abuse, they may lack the capacity to enforce sanctions when post-employment regulations are violated (OECD, 2004 and 2005d). This undermines the effort to curb instances of conflict of interest, with potential repercussions for the integrity of public-private partnerships.

3. Regulation and public-private partnerships

In an imperfect market, regulations may help to maintain competitive market discipline. Regulations protect investors against expropriation of investment capital. The challenge for regulators is that regulations may also limit entrepreneurial activities, including those in public-private partnerships. In the extreme, regulations can attempt to account for all contingencies or alternatively provide a one-size-fits-all regulatory design that applies regardless of circumstances. Both of these approaches can be detrimental to PPP success. The effect of over-regulation can destroy opportunities for pursuing value for money and can dissuade potential private partners from entering the market.

Public-private partnerships require the government to reassess pre-existing rules and regulations when it finds that they could derail or limit the effectiveness of partnerships. Basically, the ideal regulatory framework would ensure that all partners are accountable without over-regulating them. It would also protect the interests of all stakeholders and still create a favourable investment incentive. The use of regulatory powers requires that governments also pay attention to the setting of incentives that will elicit the desired behaviour from all parties.

High-quality regulation, transparency, access to information, competition, the legal framework, proper compliance and enforcement as well as adequate appeal procedures are all important for the success and adequate use of PPPs from a public policy perspective. These are key aspects to ensure that public intervention can rectify market failures without resulting in additional government failures. Under adverse circumstances, the costs resulting from the lack of quality regulation and from weak governance can be very high. The following paragraphs will discuss the elements that could be considered when developing regulatory guidelines for a PPP policy framework. These elements include:

- transparency and clear access to information;
- the legal framework;
- compliance and enforcement.

3.1. Transparency and clear access to information

Ready access to information at all stages of PPP procurement assists both the public and private partners and improves transparency, accountability and the management of projects. As illustrated through the 2005 OECD "Guiding Principles for Regulatory Quality and Performance"

(OECD, 2005c), transparency is a core element contributing to regulatory quality. For the public, transparency helps to ensure that a project tender is fair and that the planned costs are open for public scrutiny. For private firms, access to PPP data, particularly from past tenders and from ongoing project evaluations, will provide a better chance for robust project development and competitive modelling.

A country that has pushed through several initiatives to increase transparency is the United Kingdom (HM Treasury, 2003b). These initiatives include the provision of information (often on the Treasury website) on the following:

- record of future payments contracted for each PPP scheme;
- capital value of contracts signed to date and in procurement;
- record of completed projects and their performance against expectations;
- performance evaluations of ongoing projects;
- returns on equity actually achieved by private sector investors.

Transparency also has the potential to reduce opportunities for corruption. For example, the granting by the government of financial guarantees to private partners is a likely source of corruption if such guarantees are provided even when the private partner offers no value to the public. To protect the public interest against the abuse of financial guarantees, the IMF (2004:28) states: "Good disclosure is to publish detailed information on guarantees. This should cover the public policy purpose of each guarantee or guarantee program, the total amount of the guarantee classified by sector and duration, the intended beneficiaries, and the likelihood that the guarantee will be called. Information should also be provided on past calls of guarantees."

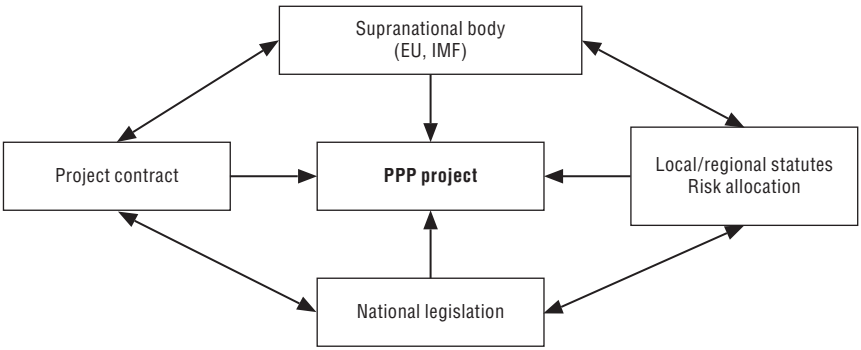
In Australia, public authorities are required to publish contracts within three months of signing. In addition, they must provide a brief summary of the contract content, a report on value for money and details on: *i)* the assets to be transferred to the private sector; *ii)* total cost, and the basis for future changes in price; *iii)* contract renegotiation provisions; *iv)* risk-sharing details in the construction and operational stages; *v)* guarantees made by both parties; and *vi)* details of the public sector comparator (P. Fitzgerald, 2007).

3.2. The legal framework

As discussed above, PPP success requires that the PPP contract aligns the objectives of the government and the private sector. Ensuring that the PPP contract is as comprehensive as possible can be an additional form of risk mitigation to ensure the success of the public-private partnership. However, it is impossible and impractical to cover all possible contingencies, especially for long-term projects that run over 25 to 30 years, as is the case for the typical PPP contract. Therefore, given the reality of incomplete contracts, a robust legal framework is essential if and when regulatory policy and contract arrangements prove inadequate to address PPP requirements and possible conflicts between parties.

The legal context within which PPPs operate may comprise four aspects (see Figure 6.1): supranational requirements (for example, from the European Union or the World Trade Organisation); the national legislation; the laws and ordinances of local/regional authorities; and the contract specific to the project. Quality regulation at all levels, but particularly at the national and the local levels, is a prerequisite to ensure a successful public-private partnership. The multilevel governance aspects also require an adequate interface between local authorities and national governments. This issue can be significant in some federal countries where, in specific cases, different layers of regulations may be superimposed.

Figure 6.1. The legal context of a public-private partnership project



Source: Adapted from European Commission (2003), *Guidelines for Successful Public-Private Partnerships*, Directorate-General Regional Policy, European Commission, Brussels, page 37.

Lastly, the legal framework must confer on the public authorities the right to take over service operations under extreme cases or in the case of default. In extreme cases, the United Kingdom government retains the right to take over services when:

- there is a serious risk to public health and safety;
- there is a serious risk to the environment;
- the government is required to exercise its statutory responsibilities;
- there are national security implications.

3.3. Compliance and enforcement

Because public-private partnerships are contractual arrangements, compliance and enforcement issues are just as relevant as for any other type of contract. In the United Kingdom, contractor compliance and sanctioning have been designed so that they are linked directly with the payment schedule to the private partner. By the time a PPP project begins operations, the public authority must be equipped with the proper resources to monitor compliance and to enforce agreed levels of service delivery. The most important tool at its disposal would be its ability to enforce the contractual pricing mechanism – the aim of which is to rapidly remedy sub-par performance and enforce the terms of the agreement. The success of this pricing mechanism is critical since the integrity of the incentive and penalty structure of the project is at stake. Moreover, the effective transfer of risk is embedded in an effective incentive and penalty structure.

Based on the United Kingdom experience, Leahy (2005) found that payment deductions as a result of non-compliance by the private partner with contractual requirements were low in general. Although this situation may be due to genuinely satisfactory contractor performance, Leahy emphasised that having a payment schedule structure in place is not necessarily effective if the public authority is unwilling to apply commensurate penalties for poor performance.

The deduction of the private partner's revenue can have a measurable impact on project quality: the decreasing profit margins will affect not only the private contractor but also project shareholders and creditors. Shareholders and creditors may become uneasy when the profit margin of a private partner suffers due to revenue deductions resulting from non-compliance with the contract. When such non-compliance seriously threatens the success of the public-private partnership, the creditors often have step-in rights.

Lastly, sub-contracting represents a specific challenge, as it may result in services that are unreliable and of poor quality. Thus, the government department in a partnership must also extend its oversight over any sub-contractors of the private partner.

Notes

1. Or, if public sector employees delivering the service benefit from better employment contracts (for example, higher wages), a PPP may reduce wages for employees and thus reduce the cost of producing the services. If the total cost for employing a public sector worker is higher compared to the private sector, this difference can be part of the reason why the private partner can make a lower bid compared to government in-house production. Political support for PPPs may also be undermined if public sector employees perceive the drive towards the use of PPPs as a way for the government to circumvent the power of public sector unions.
2. If the private partner is free to choose which government employees it will take, it might choose the most productive workers, leaving the government with the rest of the staff.
3. Unfortunately, corrupt behaviour is not always illegal; for example, legislation in some countries allows the deduction for tax purposes of bribes paid to foreign companies or individuals. Unethical behaviour, which is a broader concept than corrupt behaviour, is also not always illegal.

ISBN 978-92-64-04279-7
Public-Private Partnerships:
In Pursuit of Risk Sharing and Value for Money
© OECD 2008

Chapter 7

Conclusion

Public-private partnerships are defined not only in terms of what they are not (*i.e.* distinguishing them from traditional procurement, privatisation and concessions), but also in terms of what they are. A public-private partnership is an agreement between the government and one or more private partners according to which the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners, and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners.

Value for money should be the primary objective for entering into a public-private partnership, and the use of private finance in a PPP does not make a project affordable if that project is unaffordable under traditional procurement. When the government (or government departments) operates under expenditure limits or other budgetary constraints, the PPP mechanism may enable it to launch projects that would not be possible under traditional procurement. Indeed, the PPP mechanism might spread payments over the life of the contract and, as such, would not require one large capital expenditure by the government that might cause it to exceed its current budgetary limit or budgetary allocations. In these cases, the temptation to place a PPP project off budget just to ensure that it is delivered might detract attention from the value for money concerns that should be the primary reason for entering into the public-private partnership. Thus, governments should take care that the PPP route is not taken just to get a project off its books but rather to ensure greater efficiency in delivery and to take advantage of alternative modes.

The discussion on risk transfer indicates that, unless sufficient risk is transferred to the private partner, the public-private partnership is unlikely to yield the promised value for money. In particular, an optimum transfer of risk implies that risk is allocated to the party that is the best suited to carry it, *i.e.* the party that can deal with the risk at least cost, be it the government or the private partner. The types of risk involved are endogenous, namely where it is possible to affect the extent to which the actual outcome deviates from the expected outcome. Risk transfer ensures that the private partner has an incentive to deliver value for money, but competition is a prerequisite for the effective transfer of risk. As a way of ensuring that potential private partners aim for value for money, the use of a public sector comparator in the bidding process has proved its worth in many countries. In addition, once the contract is concluded, value for money should be measured by means of performance indicators.

Public-private partnerships operate best in a legal and regulatory environment where transparency is present, where there is clarity about the legal framework and where the terms of the contract are enforced. To regulate the creation of PPPs and to provide advice to government departments, a PPP unit should be set up within the government, but at arm's length from the departments involved in PPP creation and daily management. Lastly, national budgets and national accounts should account for PPPs so as to reflect the activities and risks that each party carries. The budgets and accounts should also provide information on government guarantees and contingent liabilities.

Box 7.1. Good practices in the public-private partnership process

1. **Affordability** and **value for money** are the benchmarks for PPP viability. In principle, affordability is about whether or not a project falls within the intertemporal budget constraint of the government. If it does not, then the project is unaffordable.

2. **Value for money** must be the primary objective in PPP design. Value for money is the optimal combination of quality, features and price, calculated over the whole of the project's life. A PPP project yields higher value for money compared to traditional procurement or government in-house production if it provides better features, higher quality or lower whole-of-life cost. Higher value for money is mainly obtained through risk transfer, competition and the use of private sector management skills.

3. **Fiscal rules and expenditure limits.** The issue of affordability – and hence the necessity for the government to operate within the boundaries of its intertemporal budget constraint – should not be confused with fiscal rules, medium-term expenditure frameworks or budgetary limits imposed either legally or as political commitments. Getting a PPP project off the books is not a valid argument for taking the PPP route.

4. **Risk sharing** plays a fundamental role in whether or not a PPP will yield value for money. As risk is an important part of the incentive mechanism for the private partner to be as efficient as possible, risk sharing is a key feature for a successful PPP. In general, risk must be carried by the party best suited to carry it, *i.e.* the party that can carry the risk at least cost. Thus, efficiency improves through adequate risk sharing. The way risk is shared between the government and the private partner is also the key feature when classifying a project as a PPP or as traditional procurement.

Box 7.1. Good practices in the public-private partnership process *(cont.)*

5. **Competition and contestability** are key elements to ensure the effective transfer of risk to the private partner. Aspects include competition **for** the market (*i.e.* in the bidding process) as well as competition or contestability **in** the market once the contract is concluded and in operation. In the absence of competition, effective risk transfer will not occur, which in turn means that the intended value for money improvements will not be realised.

6. **PPPs, budget documentation and transparency.** Budget documentation must disclose all information on PPPs in a transparent way. The information should include what and when the government will pay, and full details of guarantees and contingent liabilities. The information should preferably be disclosed at the same time as the results of the long-term fiscal analysis that shows the long-term effects of PPP contracts.

7. **Regulatory and legal framework.** Normal procurement legislation is often inadequate for public-private partnerships. During all stages of the PPP process, there must be a clear and transparent legal framework that both parties trust. Clarity in the regulatory framework will also help minimise the risk of corruption and prevent unethical behaviour. Where possible, contracts can be standardised to improve clarity and to reduce transaction costs. In addition, as PPP contracts are long-term commitments and as demand for public services may change, clear rules for renegotiation must be applicable to all parties.

8. **Institutional capacity: the PPP unit.** To ensure efficient public-private partnerships, the government needs proper institutional capacity to create, manage and evaluate them. There is also a need for capacity to provide expertise and support to public parties engaged in public-private partnerships. A PPP unit can fulfil these functions. It should be equipped with expertise to set up and negotiate PPP contracts and to support public bodies responsible for projects in the PPP process.

9. **Public sector comparator.** A public sector comparator will improve the scrutiny of PPP projects and improve the assessment of value for money.

10. **Political support** is necessary from the highest level and preferably also across party political lines, as PPP contracts usually last longer than the elected term of governments.

ISBN 978-92-64-04279-7
Public-Private Partnerships:
In Pursuit of Risk Sharing and Value for Money
© OECD 2008

Bibliography

AECOM Consult, Inc. (2005), *Synthesis of Public-Private Partnership Projects for Roads, Bridges and Tunnels from Around the World, 1985-2004,* United States Department of Transportation, Washington DC.

Ahadzi, M. and G. Bowles (2004), "Public-private Partnerships and Contract Negotiations: An Empirical Study", *Construction Management and Economics*, 22 (November), 967-978.

Allen Consulting Group (2007), "Performance of PPPs and Traditional Procurement in Australia", report to Infrastructure Partnerships Australia, Melbourne, Australia.

Arthur Andersen and Enterprise LSE (London School of Economics) (2000), "Value for Money Drivers in the Private Finance Initiative", report commissioned by the Treasury Taskforce, 17 January, London.

Ball, R. and D. King (2006), "The Private Finance Initiative in Local Government", *Economic Affairs*, March.

Bellier, M. and M. Zhou (2003), "Private Participation in Infrastructure in China: Issues and Recommendations for the Road, Water, and Power Sectors", *World Bank Working Paper No. 2*, The World Bank, Washington DC.

Bentz, A., P.A. Grout and M.L. Halonen (2004), "What Should Governments Buy from the Private Sector: Assets or Services?," in *Public-Private Partnerships: Theoretical and Empirical Evidences*, international conference organised by the ADIS Centre, University of Paris 11, 23 October, Sceaux, France.

Blöndal, J.R. (2005), *International Experience using Outsourcing, Public-private Partnerships and Vouchers,* Market-based Government Series, October, IBM Center for the Business of Government, Washington DC.

Bloomfield, P. (2006), "The Challenging Business of Long-term Public-private Partnerships: Reflections on Local Experience", *Public Administration Review*, May/June, 400-411.

Brown, C. (2005), "Financing Transport Infrastructure: For whom the Road Tolls", Policy Forum: Financing Public Infrastructure, *The Australian Economic Review*, 38(4), 431-438.

Chong, E., F. Huet and S. Saussier (2006), "Auctions, *Ex post* Competition and Prices: The Efficiency of Public-private Partnerships", *Annals of Public and Co-operative Economics*, 77(4), 521-544.

Corner, D. (2006), "The United Kingdom Private Finance Initiative: The Challenge of Allocating Risk", *OECD Journal on Budgeting*, 5(3), 37-55.

Davis, K. (2005), "PPPs and Infrastructure Investment", Policy Forum: Financing Public Infrastructure, *The Australian Economic Review*, 38(4), 439-444.

Dewatripont, M. and P. Legros (2005), "Public-private Partnerships: Contract Design and Risk Transfer", *EIB Papers* 10(1), 120-145.

Drömann, D. (2005), "German Market Develops", *Privatisation and Public Private Partnership Review 2005/2006*, quoted in OECD, 2006a.

EC (European Commission) (2003), *Guidelines for Successful Public-Private Partnerships*, Directorate-General Regional Policy, European Commission, Brussels, *http://ec.europa.eu/regional_policy/sources/docgener/guides/pppguide.htm*.

EC (2004), *Green Paper on Public-Private Partnerships and Community Law on Public Contracts and Concessions*, COM(2004)327 Final, European Commission, Brussels.

EIB (European Investment Bank) (2004), *The EIB's Role in Public-Private Partnerships (PPPs)*, European Investment Bank, Luxembourg, *www.eib.org/Attachments/thematic/eib_ppp_en.pdf.*

Engel, E., R. Fischer and A. Galetovic (2007), "The Basic Public Finance of Public-Private Partnerships", *NBER Working Paper No. 13284*, National Bureau of Economic Research, Cambridge, Massachusetts, United States.

Estache, A. (2006), "PPI Partnerships *vs*. PPI Divorces in LDCs", *Review of Industrial Organization*, 29, 3-26.

Estache, A., E. Juan and L. Trujillo (2007), "Public-Private Partnerships in Transport", *Policy Research Working Paper 4436*, The World Bank, Washington DC.

Eurostat (1995), *The European System of National and Regional Accounts (ESA95)*, The Statistical Office of the European Communities, Luxembourg.

Eurostat (2002), *ESA95 Manual on Government Deficit and Debt*, The Statistical Office of the European Communities, Luxembourg.

Eurostat (2004), "New Decision of Eurostat on Deficit and Debt: Treatment of Public-private Partnerships", *News Release No. 18*, 11 February, The Statistical Office of the European Communities, Luxembourg.

Fitzgerald, J. (2006), "Partnerships Victoria", presentation at the OECD/Spanish Ministry of Finance Symposium on Agencies and Public-Private Partnerships, 5-7 July, Madrid.

Fitzgerald, P. (2004), *Review of Partnerships Victoria Provided Infrastructure: Final Report to the Treasurer*, Growth Solutions Group, Melbourne, Australia.

Fitzgerald, P. (2007), *Towards PPP Policies that Deliver Transparency and Value for Money*, Growth Solutions Group, Melbourne, Australia.

Flinders, M. (2005), "The Politics of Public-private Partnerships", *British Journal of Politics and International Relations*, 7, 215-239.

Fourie, FCvN and P. Burger (2000), "An Economic Analysis and Assessment of Public-private Partnerships (PPPs)", *South African Journal of Economics*, 68(4), 693-725.

Fourie, FCvN and P. Burger (2001), "Fiscal Implications of Public-private Partnerships (PPPs)", *South African Journal of Economics*, 69(1), 147-167.

Grimsey, D. and M.K. Lewis (2005), "Are Public Private Partnerships Value for Money? Evaluating Alternative Approaches and Comparing Academic and Practitioner Views", *Accounting Forum*, 29(4), 345-378.

Hall, D. (2006), *PPPs: A Critique of the Green Paper*, European Federation of Public Services Union, Greenwich, United Kingdom.

HDR (Henningson, Durham and Richardson, Inc.) (2005), "Creating Effective Public-Private Partnerships for Buildings and Infrastructure in

Today's Economic Environment", HDR, Omaha, Nebraska, United States, *www.hdrinc.com*.

Hemming, R., M. Alier, B. Anderson, M. Cangiano and M. Petri (2006), *Public-private Partnerships, Government Guarantees and Fiscal Risk*, International Monetary Fund, Washington DC.

HM Treasury (2000), *Public Private Partnerships: The Government's Approach*, The Stationery Office, London.

HM Treasury (2003a), *The Green Book: Appraisal and Evaluation in Central Government*, The Stationery Office, London, *http://greenbook.treasury.gov.uk*.

HM Treasury (2003b), *PFI: Meeting the Investment Challenge,* The Stationery Office, London.

HM Treasury (2006a) *PFI: Strengthening Long-term Partnerships,* The Stationery Office, London.

HM Treasury (2006b), *Value for Money Assessment Guidance*, The Stationery Office, London.

HM Treasury (2006c), "Value for money quantitative evaluation spreadsheet", *www.hm-treasury.gov.uk/documents/public_private_partnerships/additional_guidance/ppp_vfm_index.cfm*.

HM Treasury (2007), "PFI Signed Projects List", April, *www.hm-treasury.gov.uk/documents/public_private_partnerships/ppp_index.cfm*.

Hodge, G.A. (2004), "The Risky Business of Public-private Partnerships", *Australian Journal of Public Administration*, 63(4), 37-49.

IMF (International Monetary Fund) (1986), *A Manual on Government Finance Statistics*, International Monetary Fund, Washington DC.

IMF (2001), *Government Finance Statistics Manual 2001*, International Monetary Fund, Washington DC.

IMF (2004), *Public-Private Partnerships*, Fiscal Affairs Department, International Monetary Fund, Washington DC, *www.imf.org/external/np/fad/2004/pifp/eng/031204.pdf*.

IMF (2006), *Public Private Partnerships, Government Guarantees, and Fiscal Risk*, Fiscal Affairs Department, International Monetary Fund, Washington DC.

Industry Canada (2003), *The Public Sector Comparator: A Canadian Best Practices Guide,* Industry Canada, Ottawa.

KPMG (Klynveld, Peat, Marwick and Goerdeler) (2007), *Effectiveness of Operational Contracts in PFI 2007*, KPMG LLP, London, *www.kpmg.co.uk*.

Leahy, P. (2005), "Lessons from the Private Finance Initiative in the United Kingdom", *EIB Papers*, 10(2), 58-71.

Leiringer, R. (2006), "Technological Innovation in PPPs: Incentives, Opportunities and Actions", *Construction Management and Economics*, 24(3), 301-308.

Li, B., A. Akintoye and C. Hardcastle (2002), *VFM and Risk Allocation Models in Construction PPP Projects*, Glasgow Caledonian University, Glasgow, United Kingdom.

Malone, N. (2005), "The Evolution of Private Financing of Government Infrastructure in Australia: 2005 and Beyond", Policy Forum: Financing Public Infrastructure, *The Australian Economic Review*, 38(4), 420-430.

Merna, T. and N. Smith (1996), "Projects Procured by Privately Financed Concession Contracts", Vols. 1, 2, *Asia Law and Practice*, Hong Kong, China.

Monteiro, R.S. (2005), "Public-private Partnerships: Some Lessons from Portugal", *EIB Papers*, 10(2), 72-81.

Moore, M.H. (2005), *Creating Public Value through Private/Public Partnerships*, CLAD Xth International Congress, 18-21 October, Santiago, *http://unpan1.un.org/intradoc/groups/public/documents/CLAD/clad0052203.pdf*.

Musgrave, R.A. (1959), *The Theory of Public Finance: A Study in Public Economy*, McGraw-Hill, New York, United States.

National Audit Office (2003), *PFI: Construction Performance. Report by the Comptroller and Auditor General*, HC 371 Session 2002-2003: 5 February, Canberra.

National Treasury (2004), *National Treasury PPP Manual*, South African National Treasury, Pretoria, *www.ppp.gov.za*.

OECD (2000), *Integrating Transport in the City: Reconciling the Economic, Social and Environmental Dimensions*, OECD Publishing, Paris.

OECD (2002), "OECD Best Practices for Budget Transparency", *OECD Journal on Budgeting*, 1(3), 7-14.

OECD (2004), *Managing Conflict of Interest in the Public Service: OECD Guidelines and Country Experiences*, OECD Publishing, Paris.

OECD (2005a), *Fighting Corruption and Promoting Integrity in Public Procurement*, OECD Publishing, Paris.

OECD (2005b), *Taking Stock of Regulatory Reform: A Multidisciplinary Synthesis*, OECD Publishing, Paris.

OECD (2005c), "Guiding Principles for Regulatory Quality and Performance", C(2005)52, OECD, Paris.

OECD (2005d), *Managing Conflict of Interest in the Public Sector: A Toolkit*, OECD Publishing, Paris.

OECD (2006a), "Interim Report on the Role of Private Participation in Major Infrastructure Provision", intermediary report submitted to the Working Party on Territorial Policy in Urban Areas at its 8th session in Bilbao, Spain, 5-6 June, GOV/TDPC/URB(2006)5, Public Governance and Territorial Development Directorate, OECD, Paris.

OECD (2006b), "Concessions", Global Forum on Competition, Directorate for Financial and Enterprise Affairs, OECD, Paris.

OECD (2006c), *Infrastructure to 2030: Telecom, Land Transport, Water and Electricity*, OECD Publishing, Paris.

OECD (2007a), *Infrastructure to 2030, Volume 2: Mapping Policy for Electricity, Water and Transport*, OECD Publishing, Paris.

OECD (2007b), *OECD Principles for Private Sector Participation in Infrastructure*, OECD Publishing, Paris.

Özeke, H.B. (2005), "Public Private Partnerships Financing Model: A New Trend for Turkish Public and Private Sector", *Privatisation and Public Private Partnership Review 2005/2006,* quoted in OECD, 2006a.

Park, H. (2006), "PPI System in Korea and its Policy Issues", Korea Development Institute, Seoul.

Poulter, T. (2005), "Middle Age for the PPP Market?," *Infra-News*, 13-15.

PricewaterhouseCoopers (2002), *Study into Rates of Return Bid on PFI Projects*, PricewaterhouseCoopers, London.

PricewaterhouseCoopers (2005), *Delivering the PPP Promise: A Review of PPP Issues and Activity*, PricewaterhouseCoopers, London.

Quiggin, J. (2005), "Public-private Partnerships: Options for Improved Risk Allocation", Policy Forum: Financing Public Infrastructure, *The Australian Economic Review*, 38(4), 445-450.

Regan, M. (2005), *Public Private Partnerships: Do They Add Value to Infrastructure Procurement?,* Australian Centre for Public Infrastructure, Melbourne Private University, Melbourne, Australia.

Sevilla, J. (2008), Personal communication at the OECD Symposium "Public-private Partnerships: Affordability, Value for Money and the PPP Process", Winterthur, Switzerland, 21-22 February.

Standard and Poor's (2005), *Public Private Partnerships: Global Credit Survey 2005*, Standard and Poor's, New York, United States.

State of Victoria (2005), *Standard Commercial Principles*, Department of Treasury and Finance, State of Victoria, Melbourne, Australia.

State of Victoria (2007), "Partnerships Victoria", Melbourne, Australia, *www.partnerships.vic.gov.au*, accessed 9 May 2007.

Ulla, P. (2006), "Assessing Fiscal Risks through Long-term Budget Projections", *OECD Journal on Budgeting*, 6(1), 127-187.

United Nations, Commission of the European Communities, International Monetary Fund, OECD and World Bank (1993), *System of National Accounts 1993*, CEC, Brussels.

World Bank (2007), "Statistical Annex: Infrastructure Indicators," *http://siteresources.worldbank.org/INTEAPINFRASTRUCT/Resources/855084-1130876718637/Statistical+Annex.pdf*, accessed 9 May 2007.

Zitron, J. (2006), "Public-private Partnership Projects: Towards a Model of Contractor Bidding Decision-making", *Journal of Purchasing and Supply Management*, 12, 53-62.

OECD PUBLICATIONS, 2, rue André-Pascal, 75775 PARIS CEDEX 16
PRINTED IN FRANCE
(42 2008 04 1 P) ISBN 978-92-64-04279-7 – No. 56095 2008

Public-Private Partnerships

IN PURSUIT OF RISK SHARING AND VALUE FOR MONEY

The debate about how to achieve value for money in the delivery of government services is important and ongoing. Increasingly, public services are being produced, procured and delivered to citizens in a variety of ways. Public-private partnerships are one option. These contractual arrangements between the government and a private partner have been an established practice in some countries for many years and have attracted growing attention in others.

This book highlights ten good practices, summarising what countries should consider before entering into public-private partnerships (PPPs). These include affordability, value for money, budget scoring and accounting treatment, dealing with liabilities (contingent or explicit), and regulatory and institutional governance issues. The book also discusses the important questions of risk – both financial and political – and of how to measure the performance of a public-private partnership to ensure its continued value to society. Drawing upon country examples within and outside the OECD area, this book will help governments and the public to come to grips with this complex mechanism and its impact on public finances as well as on the definition of the boundaries between the state and the market.

The full text of this book is available on line via these links:
www.sourceoecd.org/finance/9789264042797
www.sourceoecd.org/governance/9789264042797

Those with access to all OECD books on line should use this link:
www.sourceoecd.org/9789264042797

SourceOECD is the OECD online library of books, periodicals and statistical databases.
For more information about this award-winning service and free trials ask your librarian, or write to us at **SourceOECD@oecd.org**.

OECD*publishing*
www.oecd.org/publishing

ISBN 978-92-64-04279-7
42 2008 04 1 P

9 789264 042797