Public-Private Partnerships

# Reference Guide

Version 1.0

World Bank Institute
PPIAF
PUBLIC-PRIVATE INFRASTRUCTURE ADVISORY FACILITY

1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org



Cover design: James Quigley
Interior design: Francisco Indacochea

# Table of Contents

# Foreword

A substantial body of knowledge on PPPs has been built up by practitioners in governments, the private sector, international institutions, and academics. This PPP Reference Guide seeks to fill a current information gap, providing PPP practitioners with a truly global overview of the diversity of approaches and experiences we now see across the world in the implementation of PPPs. It does not seek to provide definitive answers in many areas since arguably our present state of knowledge precludes this. Nor does it seek to provide detailed country-specific guidance – which would be impossible given the diversity of country situations.

The PPP Reference Guide seeks to provide advice on what PPP practitioners should know, rather than provide advice on what to do. The Guide sets out the main topics, looks at the key issues that must be addressed, and provides what we consider the most important references that PPP practitioners can turn to for answers and to enhance their own knowledge and understanding. It is structured into separate sections that focus on three main areas, firstly what are PPPs, when might they be used and the advantages and disadvantages relative to public provision; secondly the policy, legal and institutional frameworks that should be put into place to help improve their effectiveness; and finally the ways in which PPP projects can be developed and implemented. A diverse range of case studies and institutional solutions, from all parts of the world, are presented in the PPP Reference Guide.

This project was funded by a grant from the Public-Private Infrastructure Advisory Facility (PPIAF), as part of a joint proposal with the Asian Development Bank and the Inter-American Development Bank. It was developed by a team from Castalia Strategic Advisors, who were overseen by Rui Monteiro of the World Bank Institute. A reference such as this will always be a work in progress. This 1.0 version is hosted on the Global PPP Network Site, www.pppnetwork.info, where you can add your own suggestions for useful references that can be added to future editions as well as comment on the organization of the Reference Guide or the sources that it contains. These and other inputs will be used in the 2.0 version which will be launched as a web-based reference guide later this year. The guide will also be available at www.ppiaf.org.

Clive Harris
Manager, Public-Private Partnerships
World Bank Institute

Adriana de Aguinaga de Vellutini
Program Manager
Public-Private Infrastructure Advisory Facility (PPIAF)

February 2012

# PPP Reference Guide: Introduction

A growing number of developing country governments are interested in using Public-Private Partnerships (PPPs) to provide public infrastructure assets and services.This Reference Guide exists to help them. Specifically, it aims to help government officials to answer three questions:

- What are PPPs, and why would we want to use them?
- What kind of policy, legal, and institutional framework do we need to put in place to ensure PPPs are done well?
- What is the process for developing and implementing a PPP project?

A substantial body of knowledge on PPPs has been built up by practitioners in governments, the private sector, international institutions, academics and advisors. This Reference Guide guides for government officials through the body of knowledge. It introduces key topics on PPP, sets out options, and directs readers to examples, and key references where they can find out more.

The Reference Guide is not intended as a Toolkit, setting out how to approach everything. Nor is it a manual of best practice—the state of knowledge on many topics is not yet well enough developed to prescribe best practices (which in any case is situation specific). Rather, it is the user-interface for the body of knowledge, setting out the key topics and issues, providing an overview, and letting the interested practitioner know where to go to learn more.

## Key Definitions—What Is a PPP?

There is no single, internationally accepted definition of "Public-Private Partnership". This Reference Guide takes a broad view of PPP, as:

> *A long-term contract between a private party and a government agency, for providing a public asset or service, in which the private party bears significant risk and management responsibility*

This definition encompasses PPPs that provide new assets and services, and those for existing assets and services. It can include PPPs in which the private party is paid entirely by service users, and those in which a government agency makes some or all of the payments. The definition encompasses contracts in many sectors and for many services, provided that there is a public interest in the provision of the service, and that significant risk and management responsibility have been transferred to a private party. **Module 1** of the Reference Guide at **Section 2: How PPPs Are Used** describes this range of PPP types, and the different nomenclature used to describe them.

Throughout this Reference Guide, the term "infrastructure" is used to cover the range of sectors and services for which PPPs are used. Again, there is no single definition of

infrastructure, and this Reference Guide takes a broad view. For the purpose of this Reference Guide, "infrastructure" includes economic, social, and government infrastructure—the "basic physical and organizational structures" needed to make economic, social, and government activity possible[1].

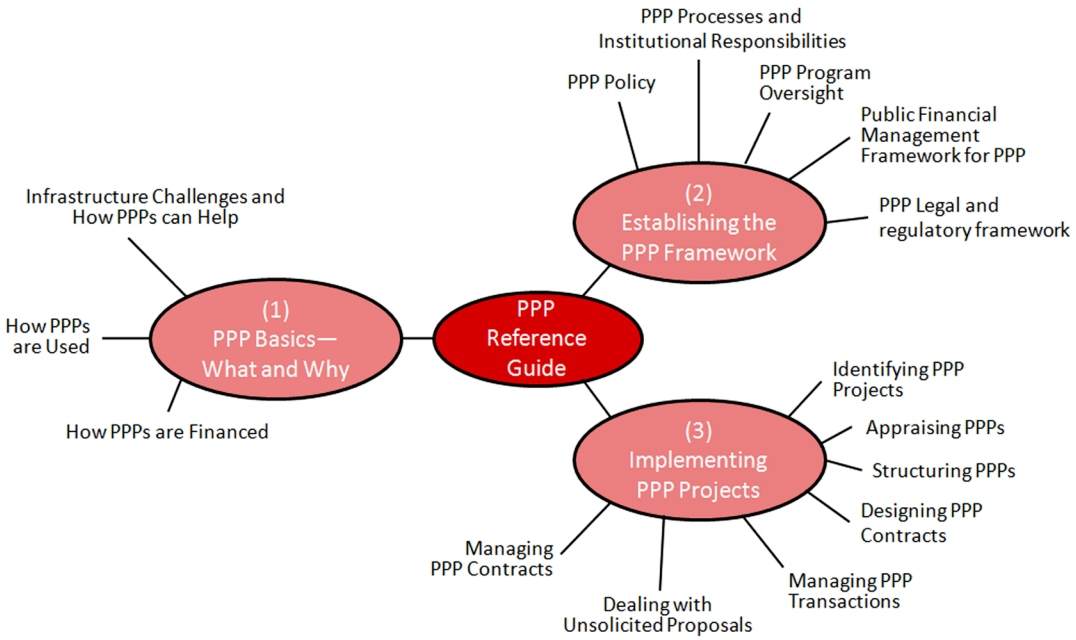
## What is in the Reference Guide

The Reference Guide is divided into the following three modules, addressing the questions above:

- **Module 1: PPP Basics—What and Why?** Provides an overview of Public-Private Partnerships (PPPs)—what they are, how they are used to provide infrastructure assets and services, their benefits, and their pitfalls
- **Module 2: Establishing the PPP Framework** Describes the elements of a sound PPP framework—that is, the policy, processes, institutions, and rules that together define how PPPs will be implemented, and that promote good governance of a PPP program.
- **Module 3: Implementing PPP Projects** Provides guidance on each stage of developing and implementing a PPP project—from initially identifying candidate projects, to managing PPP contracts through the project lifetime.

Figure 1 provides an overview of the Reference Guide, and the content of each module.

**Figure 1: PPP Reference Guide Overview**




1. Based on Oxford English Dictionary definition.

Broadly speaking, this Reference Guide is intended for use by government officials in developing countries, as described above. However, different people will find different parts of this Reference Guide useful at different times. Table 1 briefly sets out which module will be most likely to which kind of reader, under which circumstances.

**Table 1: Reference Guide Modules and Who Should Read Them**

| Module | Who Should Read It? |
|---|---|
| Module 1: PPP Basics—What and Why? | • Government officials who want to learn more about how PPPs can be used to provide infrastructure assets and services<br>• PPP practitioners looking for material to help articulate the benefits and risks of a PPP program to stakeholders within and outside governments |
| Module 2: stablishing the PPP Framework | • Government officials responsible for developing or refining the PPP framework<br>• Finance Ministry officials concerned about public financial management for PPP programs |
| Module 3: Implementing PPP Projects | • Government officials responsible for developing or refining PPP processes<br>• Government officials responsible for developing, assessing, or implementing PPP projects<br>• Government officials responsible for engaging advisors to support the PPP process |

## How to Use the Reference Guide

Each module begins with an introduction, providing an overall framework for the module's content, and listing any helpful overview references. The modules are divided into Sections, each covering a different topic, as shown in Figure 1.

Each Section provides a narrative describing the topic, and setting out the guiding principles and practical options that interested government officials should consider. Key points are supported by references **highlighted in bold type**, and followed, in square brackets, by a key reference number and page number, for example: [#1, pages 1-5]. This number refers the reader to a table at the end of the Section, in which all key references are presented.

Table 2 provides an example from a "key references" table. In some cases, the reference tables are organized by subject area, within the overall topic. Hyperlinks are provided where possible,[2] and ISBN numbers for references to books. Readers who just want to quickly get a sense of the most important references on the topic can refer directly to these key references tables.

2. All websites were accessed January, 2012.

**Table 2: Key Reference Table—Example**

| Key References: PPP Processes and Institutional Responsibilities | | |
|---|---|---|
| **Reference** | | **Description** |
| 1 | Yescombe (2007) *Public-Private Partnerships: Principles of Policy and Finance* Butterworth-Hienemann [ISBN: 978-0-7506-8054-7] | This book provides a comprehensive review of PPPs, including guidance to practitioners about key aspects of designing and implementing PPP policy and projects. Chapter 5 provides guidelines for public-sector appraisal of PPP projects |
| 2 | Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets* World Bank and PPIAF | This guide for public sector practitioners describes how to develop and implement a PPP successfully, by developing a marketable project and attracting the right private partners. Chapter 4 describes guidelines for PPP project selection |

Where the text cites a document that is not considered a "key reference", or uses a document as a source for a specific example presented in a Box, the full reference for the document is provided in a footnote. References are also provided to content elsewhere within the Sourcebook, where the subject matters of Sections are linked.

# Module 1: PPP Basics—What and Why

This module provides an overview of Public-Private Partnership (PPPs), for interested government officials who want to learn more about how PPPs can be used to provide infrastructure assets and services.

**Section 1: Infrastructure Challenges and How PPPs Can Help** describes some of the problems that typically arise in providing infrastructure—particularly in developing countries. It describes how PPPs can help address some of those problems—drawing where possible on examples and evidence—as well as the limitations and potential pitfalls of PPP.

**Section 2: How PPPs Are Used** describes therange of contract types, and sectors and services for which PPPs have been used, with links to a wide range of international PPP examples.

**Section 3: How PPPs Are Financed** briefly introduces the private finance structures used for PPPs, and provides links to further resources for those interested in learning more. It also describes how governments may seek to influence or control how private parties develop the financing structure—and why and how governments may participate in financing PPPs.

## 1.1. Infrastructure Challenges and How PPPs Can Help

Inadequate infrastructure is a constraint on growth worldwide, and particularly in developing countries. Infrastructure services are often inadequate to meet demand, resulting in congestion or service rationing. Infrastructure services are also often of low quality or reliability, while many areas are simply un-served.

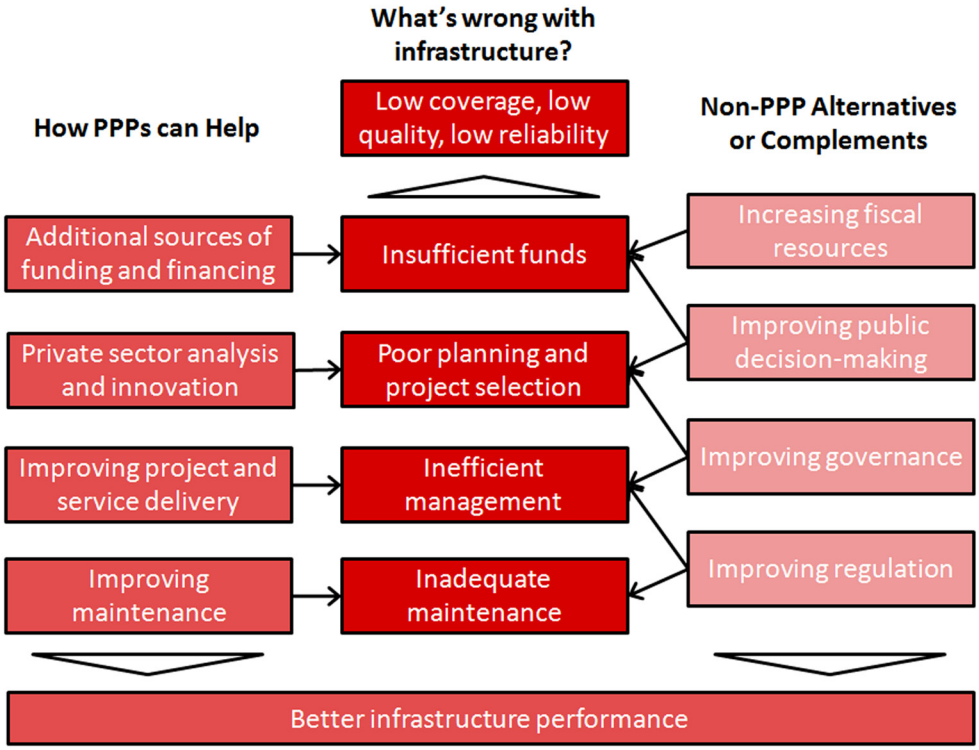
This poor infrastructure performance reflects pervasive challenges facing governments. First, most countries simply are not spending enough to provide the infrastructure needed. Secondly, poor planning and coordination, weak analysis underpinning project selection, pursuit of political gain,and corruption, mean that the limited resources are often spent on the wrong projects. More over, the delivery of infrastructure assets and services often disappoints—construction of new assets costs more and takes longer than expected, and service delivery is weak. Finally, infrastructure assets are often poorly maintained, increasing costs and reducing benefits.

### How PPPs can help

Figure 1.1.1 illustrates how PPPs—when implemented well—can help overcome some of these pervasive challenges. PPPs can mobilize additional sources of funding and financing for infrastructure. PPPs can help improve project selection, subjecting assumptions to the market test of attracting private finance. Countries with relatively long PPP histories have found that

PPPs manage construction better than traditional procurement, with projects coming in on time and on budget more often. PPPs can also help to ensure adequate maintenance keeps assets in a serviceable condition.

**Figure 1.1.1: What's Wrong with Infrastructure and How PPPs Can Help**




The mechanisms by which PPP can help improve infrastructure delivery are often summarized as "value drivers"—that is, how using PPPs to provide infrastructure can achieve value for money. These value drivers—as described in Box 1.1.1—are often integrated into PPP policies.

## PPP limitations, pitfalls, and complementary measures needed

There are problems that PPPs can not solve, or that PPPs may exacerbate. First, PPPs may appear to relieve funding problems more than is actually the case, as the government's fiscal commitments to PPPs can be unclear. This can lead to governments accepting higher fiscal commitments and risk under PPPs than would be consistent with prudent public financial management. While PPPs can contribute to better project analysis and bring fresh ideas, responsibility for planning and project selection remains primarily with the public sector,

and can be made more difficult by the unclear costs and inflexibility of PPP contracts. The advantages of private sector efficiency in managing infrastructure, and improved incentives to carry out regular maintenance, also depend on effective PPP contracting and procurement by the government.

As also highlighted in Figure 1.1.1, these limitations mean that PPPs often need to be complemented by other measures to improve infrastructure performance. These measures can include increasing fiscal resources for infrastructure, better decision-making by the public sector, and improved regulation and governance.

This section describes each of the four problems with infrastructure project implementation shown in Figure 1.1.1—describing whether and how PPPs may be able to help, as well as PPP limitations or pitfalls that may exacerb the problem.

**Box 1.1.1: PPP Value Drivers**

PPP "value drivers" are the ways in which PPP can improve value for money in infrastructure provision. They include the following:

- Risk transfer—risk retained by the Government in owning and operating infrastructure typically carries substantial, and often, unvalued cost. Allocating some of the risk to a private party which can better manage it, can reduce the project's overall cost to government
- Whole of life costing—full integration, under the responsibility of one party, of up-front design and construction with on going service delivery, operation, maintenance and refurbishment, can reduce total project costs. Full integration incentivizes the single party to complete each project function (design, build, operate, maintain) in a way that minimizes total costs
- Innovation—specifying outputs in a contract, rather than prescribing inputs, provides wider opportunity for innovation. Competitive procurement of these contracts incentivizes bidders to develop innovative solutions for meeting these specifications
- Asset utilization—private parties are motivated to use a single facility to support multiple revenue streams, reducing the cost of any particular service from the facility
- Focus on service delivery—allows a sponsoring department or agency to enter into a long-term contract for services to be delivered when and as required. Management in the PPP firm is then focused on the service to be delivered without having to consider other objectives or constraints typical in the public sector

- Predictability and transparency of costs and funding—whole-of-life costing and budgeting are considered, providing infrastructure and related ancillary services to specification for a significant period, and including any growth or upgrade requirements. This provides budgetary predictability over the life of the infrastructure and reduces the risks of funds not being available for maintenance after the project is constructed
- Mobilization of additional funding—charging users for services can bring in more revenue, and can sometime be done better or more easily with private operation than in the public sector. Additionally, PPPs can provide alternative sources of financing for infrastructure, where governments face financing constraints
- Accountability—government payments are conditional on the private party providing the specified outputs at the agreed quality, quantity, and time frame. If performance requirements are not met, service payments to the private sector party may be abated
- The Partnerships Victoria's Practitioner's Guide published in 2001 clearly set out these value drivers as the basis for the State of Victoria, Australia's PPP program. [1]PricewaterhouseCoopers (PWC)'s paper on the "PPP promise" [#9, pages 13-34] and Deloitte's paper on PPPs[#10, pages 5-9] both succinctly describe these benefits of PPP.

## 1.1.1 Insufficient Funds

Infrastructure is typically under-funded—that is, most countries are not investing enough to meet infrastructure needs and support economic growth, suggesting economically beneficial projects are not being implemented. This problem is particularly prevalent in developing countries.

Various studies have identified and tried to quantify this "funding gap". For example:

- The **World Bank's diagnostic study of infrastructure in Africa** estimates that Sub-Saharan Africa needs to spend US$93 billion a year on infrastructure, of which only US$45 billion is already being met through existing sources—such as government spending, user charges, private sector investment, and other external sources—creating a total funding gap of US$48 billion[#1, pages 6-9, and 65-86]
- According to a **2003 IDB report on private participation in infrastructure**, the investment needed in infrastructure in Latin America amounts to US$58 billion per year—over 3 percent of regional GDP[2]

1. Partnerships Victoria (2001) *Practitioner's Guide* Victoria Department of Treasury and Finance.

2. Office of Evaluation and Oversight (2003) *MIF Evaluation—Support of Private Participation in Infrastructure* Inter-American Development Bank, Annex I, page 13.

- This funding gap is not unique to developing countries—a **2007 OECD report on Infrastructure to 2030** identified a widening gap between the infrastructure investment needed for the future and the capacity of the public sector to meet those requirements from traditional sources [#2, Chapter 1].

As noted in the **World Bank Africa infrastructure diagnostic study** referenced above, the funding gap can itself be a symptom of other problems in infrastructure delivery. The authors find that US$17 billion, or 35 percent of the funding gap, can be attributed to inefficiency in existing spending due to poor governance, poor planning of investments, under-investment in maintenance, under-charging for services, and operating inefficiencies [#1, pages 65-86].

#### 1.1.1.1 How PPPs can help

Many governments turn to PPPs because they recognize that more investment in infrastructure is needed, but the government cannot "afford" to undertake infrastructure projects through traditional public procurement. Although this is one of the most common motivations for using PPPs, it is also among the most debated. The extent to which PPPs genuinely enable governments to increase spending on infrastructure depends on the nature of the government's **funding** and **financing** constraints.

#### PPPs and infrastructure funding

PPPs can help increase the funding available for infrastructure, that is, bring in more revenue to pay for infrastructure services over time. First, many PPPs involve **charging users for services**—effectively increasing total government revenue and infrastructure funding. For example, the **N4 Toll Road in Mozambique and South Africa** was developed as a toll road under a PPP, since neither government had the funds to invest otherwise. Cross-subsidies from the South African side to the Mozambican side helped make tolls affordable to users.[3]

Governments can also implement user charging—as described in **Engel, Fischer, and Galetovic's paper PPPs: When and How** [#11, pages 7-13]. PPPs therefore do not increase the resources available for infrastructure over the alternative of traditional government provision if users are charged the same for the service. However, they also note that governments can find it difficult to charge users a cost-reflective tariff for publicly-provided services.

Secondly, PPPs can bring in additional revenue by **improving asset utilization**.Raising revenues from alternative uses for infrastructure assets can reduce the cost of the infrastructure to government or users. For example, the contractor for *New Schools Privately Financed Project*—**a PPP for the construction and maintenance of 19 new schools—in New South Wales, Australia**—raised additional revenue by leasing space to privately-run childcare centers on the school sites. The additional revenue from the daycare centers saved the government AUD3.2 million (US$2.5 million) over the life of the project.[4]

---

3. Peter Farlam (2005) Working Together: Assessing Public-Private Partnerships in Africa SouthAfrican Institute of International Affairs NEPAD Policy Focus Series, pages 9-10.

4. New South Wales Auditor-General's Performance Audit (2006) *The New Schools Privately Financed Project* Audit Office of New South Wales.

## PPPs and infrastructure finance

PPPs also provide an alternative approach to financing infrastructure—that is, for spreading the capital cost of infrastructure assets over time. Governments often face a borrowing constraint—which may arise from prudent public financial management policies—that means that even commercially viable infrastructure projects cannot be implemented in the public sector. PPPs provide an alternative way to finance infrastructure that can overcome this constraint.

**Engel, Fischer, and Galetovic's paper** [#11, page 9] suggests the extent to which PPPs can help relieve borrowing constraints depends on the nature of the constraint. PPPs can help relieve short-term liquidity constraints, enabling commercially viable user pays PPPs to be built. Engel, Fischer, and Galetovic argue, however, that PPPs are less likely to help when a government cannot borrow because it is considered insolvent—in this case, it may be difficult for the government to credibly enter into a long-term contract giving up a potential source of future revenue, so a PPP may not be considered viable by investors. On the other hand, in a **2011 paper on Chile's PPP Experience, Fischer** describes how multilaterals' involve mentin a PPP can improve the credibility of the government's commitment to the contract—increasing the potential of PPP to help governments overcome debt constraints [#12, pages 17-18, and 27-28].

The benefit of PPP as a financing approach is less clear when the PPP is entirely funded by government payments. Accessing private finance through a PPP can help governments overcome short-term budget constraints, because the capital cost of a project is spread over its lifetime through availability payments, rather than incurred upfront. This can mean governments can afford to make more new infrastructure investment within annual budget constraints. **APWC paper on PPPs** illustrates how the payment profile for a PPP differs from that of a traditionally-financed project. [#9, pages17-19].

The extent to which using PPP can enable governments to overcome borrowing constraints also depends on how the PPP is accounted for. As described in **Module 2**, **Section 4.3: Fiscal Accounting and Reporting for PPPs**, some PPP assets and liabilities may be recognized in the government's accounts and financial statistics. In this case, financing of PPPs would be subject to the same constraints as public borrowing for infrastructure projects. There are no international norms for accounting for PPP commitments. However, relevant international standards have been issued and adopted by some countries (see **Module 2**, **Section 4.3: Fiscal Accounting and Reporting for PPPs** for more details).

## 1.1.1.2 PPP limitations and pitfalls—lack of fiscal clarity

PPPs can, in some cases, help increase the funding and financing available for infrastructure, as described in Section 1.1.1. However, PPPs also create fiscal commitments. These commitments are typically long-term, and can be contingent—that is, payments depend on risks such as

demand, exchange rates, and costs. This makes it harder to assess the fiscal cost of a PPP than it is for a traditional government project, where the capital cost is incurred upfront.

Lack of fiscal clarity can lead governments to over estimate the extent to which PPPs are genuinely increasing the resources available to pay for infrastructure. It can also create a temptation to spend more now, in response to political and other pressures to deliver new and improved infrastructure. As a result, governments may accept higher commitments and greater fiscal risk under PPPs than would be consistent with prudent public financial management.

## Governments often accept excessive fiscal risk under PPPs

Even where a PPP is expected to generate additional resources—for example, by charging users for services—governments often bear or share certain project risks. For example, governments may provide guarantees on demand, exchange rates, or even certain costs. Accepting these risks could be consistent with good risk allocation, as described in **Module 3**, **Section 3: Structuring PPP Projects**. However, the cost of these guarantees can be hard to estimate, and governments often take on significantly more risk than they had expected. The influence of optimism bias on project decision-making (see **Section 1.2: Poor Planning and Project Selection**) can be exacerbated—for example, a government may agree to provide a demand guarantee for a project, as optimistic forecasts mean it appearsto have no cost.

Sponsors or responsible government officials can also have an incentive to over-estimate demand, to "hide" the need for subsidies and push through projects that are not really viable. The cumulative impact over several PPP projects can create substantial fiscal risk. More over, public resources may go into projects that do not really provide value for money, since costs are higher or benefits lower than first thought.

**Irwin's book on government guarantees** [#13, Chapters 2 and 3] provides examples of how guarantees have been used, in some cases creating large exposure for the government, and describes some of the reasons governments make bad decisions regarding guarantees.

In addition to the government's explicit liabilities such as guarantees, PPPs can give rise to implicit liabilities—that is, non-contractual liabilities that a rise from moral obligation or public expectations—that create further fiscal risk.[5] Weak contracts and ineffective enforcement can mean that governments fail to really achieve risk transfer to the private sector. Again, this means that governments end up bearing significantly more risk than they had expected when projects were initially implemented.

---

5. For definitions of explicit and implicit liabilities, see Polackova (1998) *Government Contingent Liabilities: A Hidden Risk to Fiscal Stability* World Bank.

Box 1.1.2 provides examples of PPPs for which the government ended up making large, unexpected payments, either as a result of called guarantees, or ineffective risk transfer and implicit liabilities.

**Box 1.1.2: PPPs Creating Excessive Fiscal Risk—Examples from Colombia, Korea, Mexico, and the United Kingdom**

Governments often provide guarantees to PPP projects, which often cost more than expected. For example:

- In the 1990s, the Government of Colombia guaranteed revenue on toll roads and an airport, as well as payments by utilities that entered into long-term power-purchase agreements with independent power producers. Lower-than-expected demand and other problems required the government to make payments of US$2 billion by 2005[1]

- Also in the 1990s, the South Korean government guaranteed 90 percent of forecast revenue for 20 years on a privately financed road linking the capital, Seoul, to a new airport at Incheon. When the road opened, traffic revenue turned out to be less than half the forecast. The government has had to pay tens of millions of dollars every year.[2]

PPP projects can also create substantial implicit liabilities for governments When PPP projects are financially distressed, governments can be under significant pressure to bail them out, to avoid disruptions in service. For example:

- In the five years between 1989 and 1994, Mexico embarked on an ambitious road building program, awarding more than 50 concessions for 5,500km of toll roads. The concessions were highly leveraged, because equity contributions were made in the form of "sweat equity" for the construction instead of in cash. Debt financing for the projects was on a floating-rate basis and provided by local banks—many government owned—which might have faced government pressure to lend. By 1997, a combination of lower than forecasted traffic volumes and interest rate rises pushed the government to restructure the entire toll road program and bail out the concessions. In total, the government took over 25 concessions and assumed US$7.7 billion in debt[3]

- The United Kingdom National Air Traffic Services (NATS) was partially privatized, to separate the air traffic control functions from the Civil Aviation Authority. Under a PPP arrangement, NATS was to be paid a fee based on airline traffic volumes. The PPP company took on considerable debt for its investments and operations. After the September 11th attacks, airline traffic fell below forecasts and the company was in danger of not meeting its debt obligations. To reduce

the perceived risk of a disruption in service, the United Kingdom Government injected GBP 100 million of equity into the project company.[4]

Sources:(1) Irwin (2007) *Government Guarantees Allocating and Valuing Risk in Privately Financed Infrastructure Projects* The International Bank for Reconstruction and Development / The World Bank; (2) Kim, Kim, Shin, and Lee (2011) *Public-Private Partnership Infrastructure Projects: Case Studies from the Republic of Korea Volume 1: Institutional Arrangements and Performance* Asian Development Bank; (3) and (4) Ehrhardt and Irwin (2004) *Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects:Policy toward Leverage, Risk Allocation, and Bankruptcy* World Bank Policy Research Working Paper 3274, April 2004.

## PPPs can be used to bypass borrowing or budget limits

Where PPP is used as a source of financing without also bringing additional resources, this can open a window for using PPP to get around prudent budget and public financial management controls.

PPPs avoid upfront capital expenditure by the government—instead creating a stream of future government payment commitments. Most international public accounting rules do not require PPP commitments to be included on the government's balance sheet as part of public debt (see **Module 2, Section 4: Public Financial Management** for more detail). At the time a PPP is entered into, the future payment commitments may also not be included in budgets and expenditure plans, which often do not look more than one to three years ahead. Unless carefully managed, this can allow governments to use PPPs to bypass prudent borrowing and budget limits—a tempting option to provide better (and politically popular) services now at the expense of future generations.

**Abrantes de Sousa's paper on Portugal's PPP experience** [#14] describes how inadequate control of the PPP process meant the Government of Portugal took on significant fiscal exposure to its PPP contracts, contributing to its 2011 fiscal crisis. Abrantes de Sousa describes how the PPP program has created budget problems, and highlights the incentives faced by agencies to use PPPs simply to loosen budget constraints. The United Kingdom's Private Finance Initiative (PFI—the United Kingdom term for PPP) program has also come under criticism for concealing the cost of the government's obligations. A **House of Lords Select Committee inquiry into PFI** found many witnesses imputed the choice to use PFI to the fact that the government's commitments under these contracts were often not recognized as part of public debt [#15, pages 16-18].

**Module 2, Section 4: Public Financial Management**, and **Module 3, Section 2.3: Assessing Fiscal Implications**, provide guidance on how governments can manage the fiscal implications of PPPs to help avoid these problems.

## 1.1.2 Poor Planning and Project Selection

Limited resources are often spent on poorly-selected projects that fail to achieve benefits concomitant with their cost. The result can be under-used assets and poor service delivery at a higher cost than necessary.These systematic problems result from:

- **Poor planning and coordination**—good sector and cross-sector planning and coordination is needed to ensure that the "best" projects—those that represent value for money, enable integrated regional development, and provide customers with the services they desire—are consistently selected. Without sound plans, responsible agencies will not have the full view of potential projects that could be implemented and will not know the sequence in which to implement the projects to achieve the best value for money, and cross-sector coordination will be weak. **Box 1.1.3** provides an example of how weak infrastructure planning can mean projects fail to achieve value for money

- **Flawed analysis**—the analysis underpinning project selection is often flawed, so projects that appeared to be cost-benefit justified turn out not to be so in practice. Benefits are often over-estimated, resulting in projects that are larger or more complex than is justified by demand for services, while costs are often under-estimated. The **United Kingdom Government's Green Book on project assessment** acknowledges this as a systematic problem and highlights the need to correct for "optimism bias" in project analysis.[6] For example, **a series of studies of large transport projects by Flyvbjerg** [#3, 4, and 5][7] found that costs are systematically under-estimated, and benefits often under-estimated:

    1. A study of 258 transport projects found that, on average, actual costs were 28 percent higher than planned costs—and 65 percent higher on average for projects outside Europe and North America

    2. A study of 25 rail projects found traffic was heavily overestimated, at over twice actual traffic, on average. The accuracy of traffic forecasts for 183 road projects was also found to be highly variable, but without a tendency to over-estimate on average.

- **Politics or personal gain** can interfere with the project selection process—increasing costs, or in some cases diverting funds to less beneficial projects. An **IMF analysis of corruption in public investment in infrastructure** found corruption tends to create a bias towards capital spending projects, and increase their size and complexity—reducing the productivity of that investment [#6].

---

6. Treasury Guidance (2011) *The Green Book: Appraisal and Evaluation in Central Government* HM Treasury (2003, updated 2011), pages 29-30.

7. A full list of Flyvbjerg's work is available on his website, http://flyvbjerg.plan.aau.dk/pub.htm#English.

These factors often feed into each other. For example, weak analysis or poor planning can enable badly-chosen projects to be pushed through for political or personal gain, as described in the **World Bank's sourcebook on deterring corruption** in the water sector [#7, Chapter 6]. **Flyvberg's studies** also emphasize, with examples, that costs and benefits can be deliberately misrepresented, to push through projects for political or organizational reasons [#5].

**Box 1.1.3: Mumbai Water—Example of Poor Planning in Infrastructure**
The experience of the Municipal Corporation of Greater Mumbai provides an example of weak planning in the water sector. The Corporation was looking for ways to improve the efficiency of its operations. Mumbai is short of water, with supply rationed to around four to six hours a day in most parts of the city. Corporation planners were working on new schemes to transport water from hundreds of kilometers outside the city. Consultants engaged through the World Bank analyzed the cost of achieving a 24 hour water supply in one ward (K-East) entirely with new supply, and compared this with the cost of achieving 24 hour water supply through improving the distribution system to reduce leakage and theft. The consultants estimated that the cost of distribution improvements would be one sixth or less of the cost of bulk supply increments, for the same level of service improvements. The size of the discrepancy suggests that the Municipal Corporations' planning had been biased toward large projects.

Source: Castalia (2007) *Financial and Cost Benefit Analysis Report: K-East Ward Water Distribution Improvement Project.*

## 1.1.2.1 How PPPs can help

Under the right circumstances, PPPs can help improve infrastructure project selection, by harnessing the analysis and ideas of private sector investors, whose financial returns depend on getting cost and revenue forecasts right.

First, **private sponsors and lenders undertake their own project analysis**, and have experience, and a strong, profit-driven incentive to carefully assess benefits and costs. Lenders to project finance transactions, in particular, carry out extensive project due diligence, as described in **Section 3: How PPPs Are Financed**. A **2002 Standard and Poor's study** found that traffic forecasts for toll roads commissioned by banks tended to be less optimistic than those commissioned by other agencies, including developers and governments, although still biased on average—underestimating traffic by less than 20 percent on average, rather than over 35 percent.[8]

8. Bain and Wilkins (2002) Infrastructure Finance: *Traffic Risk in Start-Up Toll Facilities* Standard and Poor's.

The PPP tender process can therefore act as a filter for non-viable projects. As described by **Engel, Fischer, and Galetovic** [#11, page 12], if the private sector sponsor and lenders are being asked to take revenue and cost risk under a PPP, a non-viable project may simply not attract private interest. For example, a **McKinsey report on infrastructure challenges in India** [#17, pages 25-27] notes that several of the National Highways Association of India (NHAI)'s toll road projects have not attracted bidders. In some cases, bidders found the roads to be over-specified for the level of demand. In others, bidders found the NHAI's cost estimates to be low, and the project not viable on more conservative cost assumptions. Conversely, **Engel, Fischer, and Galetovic** [#11, page 12] note that if the government is bearing a risk—for example, by providing a demand guarantee—then a non-viable project could still be profitable for the private partner, reducing the "filtering ability" of PPPs.

**Experienced private companies can also be well-placed to identify infrastructure needs,** and come up with innovative ideas to meet them. Accepting unsolicited proposals for PPP projects from private companies can be a way to capitalize on these ideas. **Box 1.1.4** provides an example of an innovative project developed from an unsolicited proposal.While unsolicited proposals can be a useful source of ideas, to improve project selection they need to be subject to the same analysis as other major government investments. **Module 3**, **Section 6: Dealing with Unsolicited Proposals** describes how some governments have introduced policies to encourage unsolicited proposals, while subjecting them to rigorous analysis and competition.

**Box 1.1.4: Hot lanes in Virginia—Example of Private Sector Innovation**

A portion of the I-495 and I-95 highways—the "beltway" around the Washington, DC metro area, and a major North-South corridor—had been in need of repair and expansion to alleviate congestion since the early 1990s. The State of Virginia Department of Transportation (VDOT) initially developed a plan to rehabilitate and expand the highway at a cost of US$3 billion, but lack of funding and public opposition over the proposed displacement of over 300 businesses and homes had stalled the project.

In 2002, Fluor, an engineering and construction company, submitted an unsolicited proposal to develop High Occupancy Toll (HOT) lanes on the I-495, as an alternative way to accommodate traffic volume. HOT lanes are an innovative technology that allows drivers to pay to avoid traffic. The tolled lanes will run alongside highway lanes, and are designed to be congestion free. To regulate demand for the lanes, tolls for the HOT lanes change depending on traffic conditions. When traffic increases, tolls go up. Cars with more than three passengers and buses will be allowed to use the HOT lanes free of charge. The Fluor proposal reduced the number of business and homes displaced from 300 to six, a major factor in garnering public support for the project. The proposal also minimized project costs, by meeting minimum standards for road specifications.

In 2005, VDOT awarded the PPP agreement to construct the HOT lanes. The total cost of the project is US$2 billion, compared to the estimated US$3 billion under initial plans developed by the government. The State of Virginia will contribute US$400 million of this cost. The HOT lanes project reached financial close in 2007 and is set to open in 2012. Another HOT lanes project for I-95 was approved and construction is set to begin in 2012. Both projects are expected to improve congestion and provide a guaranteed travel times for HOT lane users.

Source:Virginia HOT Lanes website (http://www.virginiahotlanes.com); Gary Groat (2004) *Loosening the Belt* Roads and Bridges Vol. 42 No. 4 April 2004; Virginia Department of Transportation (2008) *Virginia HOT Lanes Fact Sheet* Commonwealth of Virginia.

## 1.1.2.2 PPP limitations and pitfalls—poor planning and project selection

While the PPP process can provide more information and additional analysis to inform project selection, the government remains responsible for choosing which projects to implement. This limits the extent to which PPPs can help improve project selection.

Foremost, **PPPs do little to improve planning**. Where PPP projects initiate from government, private companies can only respond by avoiding projects that do not appear viable, as described above. Where PPP ideas are generated by private sponsors, these often cannot overcome weaknesses in planning and coordination between sectors or across regional boundaries. For example, the HOT lanes project described in Box 1.1.4 does not extend into Maryland, a neighboring state in which half of the beltway is located. Also, in generating project ideas, private firms focus in those that are financially viable, but may not propose economically beneficial projects that would require government contributions.

The inflexibility of PPP contracts may also exacerbate sector planning challenges. As described in the **United Kingdom House of Lords' review of the PPP program** [#15, pages 28-29], PPP projects constitute a long-term commitment, which can be expensive to change if needs change (or were misunderstood in the first place).

**There are limitations on the extent to which PPPs can improve project analysis**. First, the private sector is also not immune to optimism bias. The **Standard & Poors analysis** described above shows lenders make more realistic assumptions than public agencies, they still overestimate traffic forecasts. The more conservative traffic forecasts commissioned by banks still overestimate traffic by almost 20 percent.[9]

9. Bain and Polakovic (2005) *Traffic Forecasting Risk Study Update 2005: Through Ramp-Up And Beyond* Standard & Poor's.

Secondly, where the private party to a PPP is not bearing traffic risk, or other project risks, the incentive for rigorous analysis is weaker. PPP structures can even weaken government incentives for rigorous analysis, by obscuring the costs and risks the government bears (see **Section 1.1.1.2: PPP limitations and pitfalls—lack of fiscal clarity**).

Finally, **PPPs can provide an opportunity for corruption**, which may bias project selection. Where project selection in general is not based on analysis—in particular, where corruption or pursuit of political gain tends to dominate project selection—PPPs are also likely to be affected. Guidance on assessing corruption risk, and mitigating it, is provided in a series of World Bank sourcebooks on governance in the water, transport, and power sectors.[10]

## 1.1.3 Inefficient Management

A common rationale for involving the private sector in infrastructure provision is that the private sector is more efficient and effective at managing infrastructure construction, and at service delivery once the assets are in place. Construction projects managed by government often run well over budget and behind schedule (as described further in Section 1.1.3.1).

Service delivery by government entities is often poor, because of limited capacity and weak management incentives. This increases cost—for example, the **World Bank's Africa infrastructure diagnostic study** [#1, pages 71-74] estimates that inefficiencies in state-owned utilities and infrastructure providers in Sub-Saharan Africa cost around US$6 billion a year. It also reduces the benefits users get from the service.

Studies comparing PPPs and publicly-procured or run infrastructure have found that PPPs can achieve better results. PPPs can improve the management of construction projects for new infrastructure assets, as described in Section 1.1.3.1. PPPs can also improve the efficiency and effectiveness of infrastructure services, as described in Section 1.1.3.2.

Still, these benefits may depend on the government effectively achieving competitive tension in PPP procurement. As described in Section 1.1.3.3, weak capacity in government can result in poorly-run tender processes, poorly drafted contracts, and frequent re-negotiation.

### 1.1.3.1 How PPPs can help—improved construction of new assets

PPPs have been found to reduce construction time and cost over runs for new infrastructure assets, compared to traditional public procurement.

In the United Kingdom, the National Audit Office surveyed the proportion of PPP projects coming in over budget or late, and compared this with previous assessments of the

10. Halpern, Kenny, Dickson, Ehrhardt,and Oliver (2008)*Deterring Corruption and Improving Governance in the Water Supply & Sanitation Sector: A Sourcebook* World Bank; World Bank/Energy, Transport & Water Department, and Finance, Economics & Urban Department (2009) *Deterring Corruption and Improving Governance in the Electricity Sector* World Bank; and World Bank/Transport Sector Board (2009) *Deterring Corruption and Improving Governance in Road Construction and Maintenance* World Bank.

performance of publicly-procured projects. PPPs out-performed public projects, particularly on cost—although the difference was lower in 2008 than in 2003. As also described in the **House of Lords' review of the PPP program**, improvements in public procurement in the United Kingdom may be narrowing the gap with PPPs [#15, pages 19-20].

In Australia, two studies have broken down the project development process to allow more detailed comparison. PPPs consistently perform better in achieving lower project cost over-runs. Comparing the timing of project delivery, both PPPs and traditionally-procured projects both took longer than expected. The studies suggest delays occur at different stages of the process. The complex contracting process means PPPs can experience delay at an earlier stage in the process, but tend to come in on time once contracted. Publicly-procured projects may be contracted more quickly, but this is more than offset, on average, by delays in implementation.

A selection of these studies is summarized in Table 1.1.1 and Table 1.1.2.

**Table 1.1.1: Comparing PPP and Public Procurement in the United Kingdom**

| Source | Comparison | Proportion of Projects Over Budget (%) | | Proportion of Projects with Time Over-run (%) | |
|---|---|---|---|---|---|
| | | PPP | Public | PPP | Public |
| National Audit Office, 2003 [#17] | Contract award to final | 22% | 73% | 24% | 70% |
| National Audit Office, 2008 [#18] | Contract award to final | 35% | 46% | 31% | 37% |

**Table 1.1.2: Comparing PPP and Public Procurement in Australia**

| Source | Comparison | Average Over Budget (% of original cost estimate) | | Average Time Over run (% of original time estimate) | |
|---|---|---|---|---|---|
| | | PPP | Public | PPP | Public |
| Infrastructure Partnerships Australia, 2007 [#19] | Original approval to final | 12% | 35% | 13% | 26% |
| | Contract to final | 1% | 15% | -3% | 24% |
| Duffield review of PPP performance, 2008 [#20] | Original announcement to final | 24% | 52% | 17% | 15% |
| | Budget approval to final | 8% | 20% | 12% | 18% |
| | Contract to final | 4% | 18% | 1.4% | 26% |

Construction companies interviewed by the United Kingdom National Audit Office indicated that the PPPs "impose a greater discipline" in regard to cost certainty for projects. This is because PPPs usually do not allow for contract price to be adjusted for changes in costs, and private financiers have greater scrutiny over the specifications of the project. [#18, pages 7-9]. That is, private companies' returns on a PPP depend on bringing the project in on time and on budget—creating stronger incentives than under public procurement, where changes to project cost are often at the expense of the contracting authority. In turn, this means private companies make more careful and conservative estimates of costs in the first place, helping reduce the optimism bias described in Section 1.1.2.

### 1.1.3.2 How PPPs can help—improved service delivery and management

Evidence suggests that private sector participation can improve services and management, compared to government-run utilities.

A **comprehensive 2009 study by the World Bank** [#22] analyzed the effect of introducing private sector participation through concessions or full privatization of utilities. The study used econometric analysis to assess performance of over 1,200 water and electricity utilities, in 71 developing and transition countries. The study found significant efficiency gains when private sector participation was introduced—including reduced water losses, and increased staff efficiency. These gains came alongside improvements in service delivery, with increased coverage and daily hours of service. A **study by Marin of PPP for urban water utilities**, also in 2009, analyzed the performance of 65 large water PPP projects in developing countries worldwide. Marin also found that introducing a private operator under a PPP contract consistently improved operational efficiency and service quality [#23].

These results are supported by several case studies on individual PPPs. For example, Box 1.1.5 summarizes the results of a detailed evaluation of the performance of a concession contract for a water utility in Bucharest, Romania.

**Box 1.1.5: Concession Contract for Water Distribution in Bucharest, Romania**

In 2000, the city of Bucharest, Romania entered into a concession contract with Apa Nova, a subsidiary of the international water operator Veolia, to operate its water utility. A performance review of the concession contract found that in the first 10 years, Apa Nova has improved the utility's water delivery services and operations. On four of six service level indicators, service improvements were above the average improvement for other Romanian towns over the same period. At the same time, efficiency improvements included close to 50 percent reduction in non-revenue water, and an increase in staff productivity from 70 staff per connection to 20—above-average improvements, when compared with the performance of publicly-managed utilities in Romania.

Source: Erhardt, Rekas, and Tonizzo (Castalia) (2010*) Evaluation of the Bucharest Water and Wastewater Concession-Final Report to the IF*C

### 1.1.3.3 PPP limitations and pitfalls—failure to achieve competitive tension

PPPs can achieve efficiency improvements in the delivery of infrastructure, as described above. However, creating the incentives to achieve efficiency gains, and ensuring the public and users reap the benefit, depends on the government effectively achieving competitive tension in PPP procurement, and real risk transfer to the private sector. This can be difficult where low public sector capacity means that governments lack the resources and skill to structure and manage PPPs well.

Implementing a competitive procurement process for PPPs can be difficult. As described in detail in **Module 3** of this Reference Guide, governments need to approach the market with a well-defined, well-structured PPP project. Where this is not the case, bidders may make bids that are either incomparable with each other (as based on varying assumptions) or deliberately low, with a view to resolving uncertainties through post-bid negotiation. This can be a challenge even in countries with long PPP experience. For example, the **House of Lords' Review of PPPs in the United Kingdom** [#15, pages 20-21] describes how negotiations at the preferred bidder stage led to price increases in many PPP projects.

**Guasch's comprehensive review of PPP experience in Latin America** [#24] highlights a further challenge with achieving the benefits of competition—the incidence of renegotiation of PPP contracts. Of a sample of over 1000 concessions granted in the Latin America and Caribbean between 1985 and 2000, Guasch found that 10 percent of electricity concessions, 55 percent of transport concessions, and 75 percent of water concessions were renegotiated. These renegotiations took place an average of 2.2 years after the concessions were awarded.

Guasch suggests this high incidence of renegotiation soon after concession award may reflect flaws in the initial tender processes, weak regulation, or opportunism on the part of the private party or government. Most renegotiations were favorable to the operator—for example, resulting in increased tariffs, or reduced or delayed investment obligations. In these cases, the cost discipline that leads to efficiency improvements that are passed on to the public sector may not have been achieved.

**Abrantes de Sousa's review of the PPP program in Portugal** describes a similar tendency [#14, pages 9-10]. Abrantes de Sousa notes that the government's apparent willingness to renegotiate contracts undermines the competitive process, with bidders engaging in strategic bidding to win the contract, with a view to renegotiating later without competition.

## 1.1.4 Inadequate Maintenance

Infrastructure assets are often under-maintained, as maintenance is poorly planned, or planned maintenance is deferred. Political consideration or pursuit of personal gain often biases infrastructure expenditure towards new assets over maintenance, as described in **an IMF analysis of corruption in infrastructure** [#6].

Inadequate maintenance increases lifetime costs, while also decreasing benefits. Regular maintenance is usually the lower-cost way to keep infrastructure assets at a serviceable standard, compared to the alternative of allowing quality to degrade until major rehabilitation work is needed. The **World Bank's Africa infrastructure diagnostic study** estimates that preventative maintenance for the roads sector in Africa could save $2.6 billion a year in capital expenditures rehabilitation [#1, page 15]. In South Africa, a review of road maintenance by the **South African National Roads Agency** indicates that delaying road maintenance for three years leads to increased costs of six times the original costs of preventative maintenance. If road maintenance is delayed for five years, costs rise to 18 times the preventative cost.[11]

The poor performance of under-maintained infrastructure can be costly for users. For example, an **engineers' association report from the United States** [#8, pages 1-4] estimates that poor road conditions cost motorists $67 billion a year in repairs and increased operating costs, while leaking pipes lose an estimated seven billion gallons of clean drinking water a day.

### 1.1.4.1 How PPPs can help

PPPs can improve maintenance of infrastructure assets, by improving incentives for both private contractors and governments to make quality maintenance a priority.

First, PPPs bundle construction or rehabilitation and on-going maintenance into a single contract. This helps incentivize the private company to build the asset to a high quality upfront, to minimize the need for maintenance (resulting in a lower "whole of life" cost of the asset), as described in a 2003 **United Kingdom National Audit Office report on PPP performance** [#18, page 8].

The private party then faces a strong incentive to carry out adequate maintenance. This could be because revenues in the form of user charges depend on providing a working service to users. Under government-pays PPPs, payment typically depends on the availability of the asset over time, to the defined quality. In this case, PPP contracting also forces governments to commit upfront to making adequate funding available to maintain an asset over time. This can help overcome potential budget cuts in the future that would delay required maintenance and rehabilitation.

Some types of PPP reward improved maintenance directly. For example, Frauendorfer and Liemberger describe performance-based contracts for non-revenue water reduction [#25, pages 34-37]. Box 1.1.6 provides examples of performance-based maintenance contracts, which have proved effective at improving maintenance in the road sector.

---

11. Nel (Ed.) (2004) *South Africa National Roads Agency Limited. Annual Report 2004* The South African National Roads Agency Ltd. page 36.

**Box 1.1.6: Performance Based Road Contracts—Improving Maintenance of Infrastructure**

Performance-based road contracts have proved successful in improving the quality of road maintenance—a pervasive problem in many countries. For example:

Chad suffers from poor maintenance of its road network because of poor design of maintenance contracts with private contractors, as well as lack of domestic funding. In 2001, Chad awarded a performance-based maintenance contract for 441 km of unpaved roads (7 percent of the country's road network), which pays a lump-sum fee per kilometer of road maintained to pre-defined standards. The roads have since met and even exceeded performance standards

Argentina also has experience with private-sector performance contracts on their road networks. The performance-based contracts have improved maintenance and reliability of the roads up to a specified standard with the government, and have saved the Government of Argentina almost 30 percent in additional capital expenditures for rehabilitation.

Source: Hartwig, Mumssen, and Schliessler (2005) *Output-based Aid in Chad: Using Performance-based Contracts to Improve Roads* Global Partnership for Output Based Aid, World Bank; Liautaud (2001) *Maintaining Roads: Experience with output-based contracts in Argentina* World Bank.

## 1.1.4.2 PPP limitations—need for effective contract design and regulation

In some circumstances, the ability of PPPs to create incentives to improve maintenance will be limited. This may be the case:

- In user-pays PPPs where the PPP company is a monopoly provider, or for government-pays PPPs, if quality and safety standards are not carefully specified, monitored, and enforced. **Engel, Fischer, and Galetovic** [#11, page 9] note the importance of effective monitoring to achieving the potential benefit of improved maintenance
- If the contractor does not have much equity of other financial stake in the project, meaning it would rather walk away from a contract than spend on costly maintenance. This risk is described further in **Section 1.3.2.2**, on the danger of over-leveraged projects
- Towards the end of the contract, when the contractor knows it will not reap the benefit of further maintenance investments.

These limitations can be mitigated through good contract design, as described further in **Module 3** of this Reference Guide, **Section 4: Designing PPP Contracts**. **Module 2**, **Section 5.2: PPPs and Sector Regulation** also describes how PPPs in monopoly sectors need to be combined with effective regulation of price and service standards, through the contract, a sector regulatory regime, or a combination of the two.

| Key References: Infrastructure Challenges and How PPPs Can Help | | |
|---|---|---|
| | **Reference** | **Description** |
| **Problems with Infrastructure** | | |
| 1 | Foster and Briceño-Garmendia (eds.) (2010) *Africa's Infrastructure: A Time for Transformation* World Bank and Agence Française de Développement [ISBN 978-0-8213-8041-3<br>**French Version:** *Infrastructures africaines: Une transformation impérative* | Presents the results of the Africa Infrastructure Country Diagnostic (AICD) study, a comprehensive review of infrastructure sectors in Africa. Details the challenges facing infrastructure provision in Africa, with information on performance by sector |
| 2 | Organisation for Economic Co-Operation and Development (OECD) (2007) *Infrastructure to 2030 Volume 2: Mapping Policy for Electricity, Water and Transport* OECD<br>**French Version**: *Les infrastructures à l'horizon 2030 (Volume 2): Electricité, eau ettransports :quellespolitiques?* | Presents the results of a "global infrastructure needs" study, reviewing trends and challenges in the electricity, water, and transport sectors, and providing policy recommendations. Includes estimates of infrastructure needs in OECD economies, as well as considering the role of PPP in meeting those needs |
| 3 | Flyvberg, Holm, and Buhl (2002) *Underestimating Costs in Public Works Project: Error or Lie?* Journal of the American Planning Association, Summer 2002 Vol. 68 No3 pages 279-295 | This global study of 258 transport projects finds that, on average, actual costs were 28 percent higher than planned costs—65 percent higher for projects outside Europe and North America. The paper describes technical, psychological, and political explanations for this result |
| 4 | Flyvbjerg, Holm,and Buhl (2005) *How (In) accurate Are Demand Forecasts in Public Works Projects? The Case of Transportation* Journal of the American Planning Association Spring 2005 vol. 71 No. 2, pages 131-146 | This study of 210 transport projects in 14 countries finds that traffic was over-estimated for nine out of ten rail projects, by an average of 106 percent. The accuracy of traffic forecasts also varies for roads, but on average road traffic was found to be under-estimated |
| 5 | Flyvberg (2007) *Policy and Planning for Large Infrastructure Projects: Problems, Causes, and Cures* Environment and Planning B: Planning and Design 2007 volume 34 pages 578-597 | Summarizes the results and lessons from the above studies, and other similar work—why estimates of costs and benefits are inaccurate for large infrastructure projects |
| 6 | Tanziand Davoodi (1998) *Roads to Nowhere: How Corruption in Public Investment Hurts Growth* International Monetary Fund Economic Issues 12 | Drawing on cross-country analysis, argues that corruption reduces growth, by increasing public investment while reducing its productivity—increasing investment expenditure, but with lower expenditure on operations and maintenance |
| 7 | Halpern, Kenny, Dickson, Ehrhardt,and Oliver (2008) *Deterring Corruption and Improving Governance in the Water Supply & Sanitation Sector: A Sourcebook* World Bank | Chapter 6 describes the problems of corruption in planning and implementing major capital projects |
| 8 | Advisory Council for the American Society of Civil Engineers (2009) *2009 Report Card for America's Infrastructure* American Society of Civil Engineers | Assigns "grades" and describes the state of different types of infrastructure in the United States. Includes estimates of the cost to users and government of the poor standard of maintenance |
| **PPP Performance, and Pitfalls** | | |
| 9 | PricewaterhouseCoopers Advisory Services (2005) *Delivering the PPP Promise: A Review of PPP Issues and Activity* PricewaterhouseCooper | Section 2 succinctly describes the advantages and disadvantages of using PPPs |
| 10 | Eggers and Startup (Deloitte Research) (2006) *Closing the Infrastructure Gap: The Role of Public-Private Partnerships* Deloitte | Examines the case for PPPs, describing the typical benefits of PPP over traditional procurement. Also reviews how PPP markets typically develop, considering PPP experience in several sectors (with a focus on developed countries) |

| | | |
|---|---|---|
| 11 | Engel, Fischer, and Galetovic (2009) *Public-Private Partnerships: When and How* IDEAS (Paper provided by Centro de Economía Aplicada, Universidad de Chile in its series Documentos de Trabajo with number 257) | Describes the circumstances under which PPPs may provide better value than traditional public procurement, as well as examining some common but weak arguments for PPPs. Also describes institutional requirements for a successful PPP program |
| 12 | Fischer (2011) *The Promise and Peril of Public-Private Partnerships: Lessons from the Chilean Experience* the International Growth Centre WorkingPaper 1/0483 June 2011 | Uses the experience of Chile and other developing countries to examine the benefits and pitfalls of PPPs, also offering recommendations to address common problems |
| 13 | Irwin (2007) *Government Guarantees Allocating and Valuing Risk in Privately Financed Infrastructure Projects* World Bank | Chapter 2 describes "lessons from history" of government guarantees to private infrastructure projects, with cautionary tales of governments thereby creating significant fiscal exposure. Chapter 3 describes why governments can make bad decisions on providing guarantees |
| 14 | Abrantes de Sousa (2011) *Managing PPPs for Budget Sustainability: The Case of PPPs in Portugal, from Problems to Solutions* ppplusofoniablogspot Domingo, Outubro 30, 2011 | Describes Portugal's PPP experience, including the rapid adoption of PPP, without strong fiscal control, and the associated fiscal risk. Also considers how better management of PPPs could contribute to resolving Portugal's external debt problems |
| 15 | United Kingdom House of Lords Select Committee on Economic Affairs (March 2010)1st Report of Session 2009-2010: *Private Finance Projects and Off-Balance Sheet Debt Volume 1: Report*HL Paper 63-I | Summarizes the results of the Select Committee's inquiry into the use of PFI. Describes the United Kingdom's PFI program, how the value for money of PFI projects is assessed, and evidence from witnesses and reports on the results of PFI in practice |
| 16 | United Kingdom House of Lords Select Committee on Economic Affairs (April 2010) 2nd Report of Session 2009-2010: *Government Response to Private Finance Projects and Off-Balance Sheet Debt* HL Paper 114 | Sets out HM Treasury's response to the Select Committee's report, providing further detail and commentary on the practices and results of PFI in the United Kingdom |
| 17 | Gupta, Gupta, and Netzer (2009) (McKinsey and Company) *Building India: Accelerating Infrastructure Projects* McKinsey and Company | Describes bottlenecks in infrastructure provision in India, and possible solutions, including highlighting some of the benefits of PPPs |
| 18 | Finlay, Browne, Chambers, and Ratcliffe under the direction of Richard Eales, National Audit Office (NAO) (2003) *PFI: Construction Performance* Report by the Comptroller and Auditor GeneralHC 371 Session 2002-2003: 5 February 2003 | Compares PFI projects in the United Kingdom with an earlier survey of publicly-procured construction projects, and found a higher proportion of PFI projects come in on time and on budget |
| 19 | Beckett, Drazin, Finlay, Kingsley-Smith, Martin, Neathey, Robertson, and Wynniatt, National Audit Office (NAO)(Oct. 2009) *Performance of PFI Construction A Review by the Private Finance Practice: October 2009* NAO | Updates previous report, adding experience to 2008 |
| 20 | Infrastructure Partnerships Australia (2007) *Performance of PPPs and Traditional Procurement in Australia* | Compares 21 PPP projects with 33 traditionally-procured infrastructure projects, finding that on average, PPPs have lower cost overruns and delays |
| 21 | Duffield (2008) *Report on the Performance of PPP Projects in Australia when compared with a representative sample of traditionally procured infrastructure projects* National PPP Forum-Benchmarking Study Phase II, Melbourne University, Melbourne Engineering Research Institute (MERIT) | Compares 25 PPP projects with 42 traditionally-procured projects' cost and time performance over a series of project milestones |

| | | |
|---|---|---|
| 22 | Gassner, Popov, and Pushak(2009) *Does Private Sector Participation Improve Performance in Electricity and Water Distribution*Trends and policy Options. No 6, Public Private Infrastructure Advisory Facility (PPIAF), World Bank | A comprehensive econometric analysis of more than 1,200 utilities in 71 developing and transition countries. Found that private sector participation improved efficiency and service levels |
| 23 | Marin (2009) *Public-Private Partnerships for Urban Water Utilities: A Review of Experience in Developing Countries* Trends and Policy Options No. 8 PPIAF, World Bank | Reviews the experience of 65 PPPs in the water sector in developing countries, finding consistent improvements in efficiency and service quality |
| 24 | Guasch (2004) *Granting and Renegotiating Infrastructure Concessions: Doing it Right* World Bank Institute | Describes in detail how poor PPP design and weak implementation can lead to renegotiations and increased costs. Based on a review of experience in Latin America and the Caribbean, where a high proportion of PPPs underwent renegotiation within a short time from contract close |
| 25 | Frauendofer and Liemberger (2010) *The Issues and Challenges of Reducing Non-Revenue Water* Asian Development Bank | The section on "outsourcing of non-revenue water management activities" (pages 34-37) describes how performance-based contracts can be used to help improve maintenance standards |

# 1.2. How PPPs Are Used

"Public Private Partnerships" encompass a range of agreements, called by a range of different names, and have been used for a wide range of infrastructure assets and services. The overall introduction to this Reference Guide provided a broad definition of PPPs, as "*long-term contracts between a private party and a government agency, for providing a public asset or service, in which the private party bears significant risk and management responsibility*". It also defined infrastructure as "*basic physical and organizational structures needed to make economic, social, and government activity possible*", to cover the range of sectors and services for which PPPs are used.

Section 1.2.1 describes in more detail the range of PPP contract types, and the different nomenclature used to describe those contract types. Section 1.2.2 provides links to resources and case studies for a wide range of examples of how PPPs have been used in different infrastructure sectors worldwide.

## 1.2.1 PPP Contract Types

Public-private partnerships include a range of agreements, which can be described in different ways. Throughout this Reference Guide, PPPs are described in terms of three broad parameters: whether the PPP is for a new or existing asset, what functions the private party is responsible for, and how the private party is paid.

Many PPPs involve **new infrastructure assets**—often called a "greenfield" project. For example, the United Kingdom's PPP program—called the Private Finance Initiative (PFI)—has involved private companies in financing, building, and managing new infrastructure assets,

from schools and hospitals to defense facilities. PPPs can also be used to transfer responsibility for upgrading and managing **existing infrastructure** to a private company. For example, this could include rehabilitating and maintaining an existing asset—called a "brownfield" project—or taking over operations of an existing utility business providing water or electricity services to the public.

The **functions for which the private party is responsible** depend to some extent on the type of asset and service involved. Typical functions—which may or may not be transferred to the private party, depending on the project—can include the following:

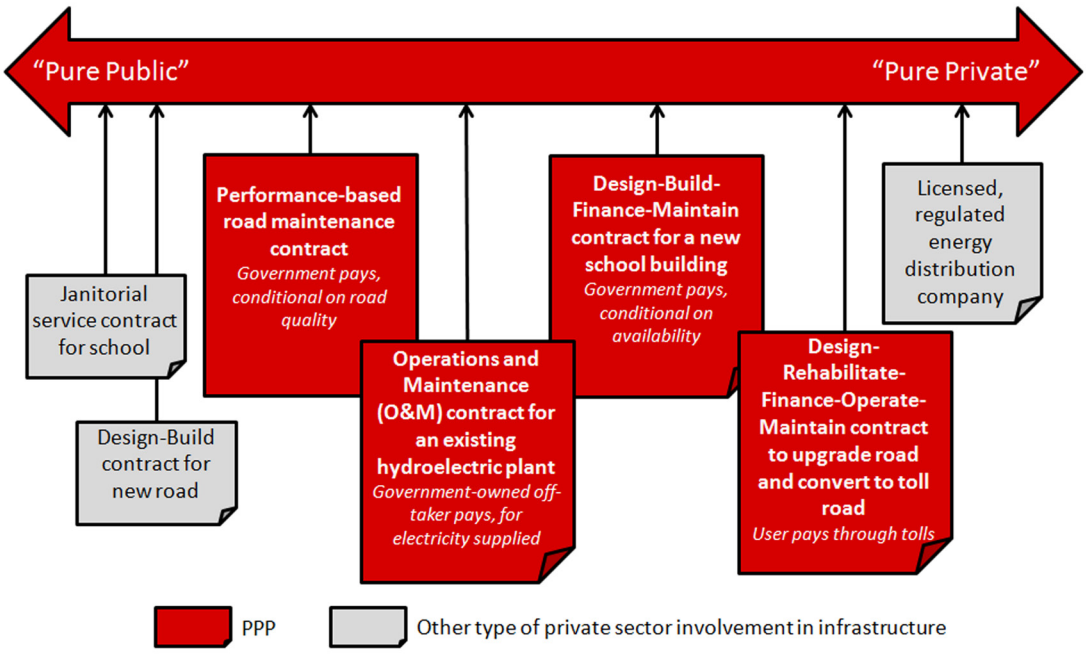
- **Design**—also called "engineering" work—means developing the project from initial concept and output requirements to construction-ready design specifications. When the private party is responsible for building or rehabilitating an asset, as described below, it is typically also responsible for design
- **Build, or Rehabilitate**—when PPPs are used for new infrastructure assets, they typically require the private party to construct the asset and install all equipment. Where PPPs involve existing assets, the private party maybe responsible for rehabilitating or extending the asset
- **Finance**—when a PPP includes building or rehabilitating the asset, the private party is typically also required to finance all or part of the necessary capital expenditure—as described further in **Section 3: How PPPs Are Financed**
- **Maintain**—PPPs assign responsibility to the private party for maintaining an infrastructure asset to a specified standard over the life of the contract. This is typically considered a defining feature of PPP contracts
- **Operate**—the operating responsibilities of the private party to a PPP can vary widely, depending on the nature of the underlying asset and associated service. For example, the private party could be responsible for:
    1. Technical operation of an asset, and providing a bulk service to a government off-taker—for example, a bulk water treatment plant
    2. Technical operation of an asset, and providing services directly to users—for example, a PPP for a water distribution system
    3. Providing support services, with the government agency remaining responsible for delivering the public service to users—for example, a PPP for a school building that includes janitorial service.

The **PPP payment mechanism**is a third defining feature. The private party can be paid by collecting fees from service users, by the government, or by a combination of the two. The options for a payment mechanism can depend on the functions of the private party:

- Under "user pays" PPPs, such as toll roads, the private party provides a service to users, and generates revenue by charging users for that service. These fees (or tariffs, or tolls) can be supplemented by subsidies paid by government, which may be performance-based (for example, conditional on the availability of the service at a particular quality), or output-based (for example, payments per user)
- In "government pays" PPPs, the government is the sole source of revenue for the private party. Government payments can depend on the asset or service being available at a contractually-defined quality ("availability" payments). They can also be output-based payments for services delivered to users—for example, a "shadow toll" road that is free for users, but for which the government pays a fee per driver.

These characteristics can be combined in various ways, to create a wide range of PPP contracts. Figure 1.2.1 provides some examples. As Figure 1.2.1 illustrates, these contracts can be thought of as a continuum between public and private provision of infrastructure—transferring increasing responsibilities and risk to the private sector. PPPs are not the only way the private sector can be involved in infrastructure—Figure 1.2.1 also includes examples of arrangements that would not usually be considered as PPP.

**Figure 1.2.1: Examples of PPP Contract Types**



There is no consistent, international standard for defining PPPs and describing these different types of contract. Some governments define "PPP" in their PPP framework to mean a specific range of contract types, as described in **Module 2** of this Reference Guide, **Section 1: PPP Policy**. These definitions may include contract types with some of or all the range of features described above. For example, in Brazil, the "PPP Law" governs only government-pays PPP contracts. Contracts that are paid for by charging users are called concessions, and governed by the "Concessions Law".[12]

Moreover, similar PPP contracts may be called a range of different names. In some cases, PPPs are described by the functions transferred to the private party, as above. For example, a"Design-Build-Finance-Operate-Maintain", or DBFOM contract would allocate all those functions to the private party. Table 1.2.1 explains other common PPP nomenclature, and how each relates to the description by asset type, functions, and payment mechanisms described above.

The following resources provide more information on PPP contract types and nomenclature:

- **Delmon's paper on understanding options for PPPs in infrastructure** [#1] provides the most detailed discussion. Delmon classifies PPPs by five factors, similar to the characteristics described above: (1) whether the PPP is a new or existing business or asset; (2) the responsibility of the private party for construction; (3) the level of private finance involved; (4) the nature of the project company's service delivery obligations (bulk supply or retail level); and (5) the source of revenue stream

- **Yescombe** chapter on "What are Public-Private Partnerships" [#2, pages 1-14], which also describes the range of PPP structures and how these are classified

- **Farquharson et al** chapter on "Defining Public-Private Partnerships" [#3, pages 9-14], which focuses on how PPPs differ from privatization and management contracts; and describes user-fee and availability-based PPPs

- **World Bank explanatory notes on key topics in water sector regulation** [#4, Note 4] describe common contract types for managing existing assets in the water sector: concession, lease or affermage, and management contracts.

- **Module 3**, **Section 3: Structuring PPP Projects** also provides further guidance and links on PPP contract structures, and how governments can decide which to use.

12. Law 8987(1995) is the Federal Concessions Law, and Law 11079 (2004) is the Federal PPP Law. See **Module 2, Table 2.1: Examples of PPP Framework Documents** for more details.

**Table 1.2.1: PPP Nomenclature**

| Contract Type(s) | Overview Description and Reference | Type of Asset | Functions Transferred | Payment Mechanism |
|---|---|---|---|---|
| Design-Build-Finance-Operate (**DBFO**) Design-Build-Operate (**DBO**) Operations & Maintenance (**O&M**) | Under this nomenclature, the range of PPP contract types is described by the functions transferred to the private sector. The "maintain" function may be left out of the description (so instead of DBFOM, a contract transferring all those functions may simply be described as DBFO, with responsibility for maintenance implied as part of operations). An alternative description along similar lines is Design-Construct-Manage-Finance (DCMF), which is equivalent to a DBFOM contract | New infrastructure | As captured by contract name | Can be either government or user pays |
| Build-Operate-Transfer (**BOT**), Build-Own-Operate-Transfer (**BOOT**), Build-Transfer-Operate (**BTO**) | This approach to describing PPPs for new assets captures legal ownership and control of the project assets. Under a BOT project, the private company owns the project assets until they are transferred at the end of the contract. BOOT is often used interchangeably with BOT, as **Yescombe** [#2, page 12] describes. In contrast, a Build-Transfer Operate (BTO) contract, asset ownership is transferred once construction is complete. As **Delmon** [#1, pages 20-21] describes, ownership rights mainly affect how handover of assets is managed at the end of the contract | New infrastructure | Typically, design, build, finance, maintain, and some or all operations Under some definitions, BOT or BTO may not include private finance, whereas BOOT always includes private finance | Can be either government or user pays |
| Rehabilitate-Operate-Transfer (ROT), for example | In either of the naming conventions described above, "Rehabilitate" may take the place of "Build" where the private party is responsible for rehabilitating, upgrading, or extending existing assets | Existing infrastructure | As above, but "rehabilitate" instead of "build" | As above |
| Concession | "Concession" is used for a range of types of contract, as described in **Delmon** [#1, Box 1 on page 9]. In the PPP context, a concession is mostly used to describe a "user-pays" PPP. For example, in Brazil, the "concession law" applies only to fully user-pays contracts. On the other hand, "Concession" is sometimes used as a catch-all term to describe a wide range of PPP types—for example, all recent PPPs in Chile have been implemented under the "concession law", including fully government-pays contracts | New or existing infrastructure | Design, rehabilitate, extend or build, finance, maintain, and operate—typically providing services to users | User pays—in some countries, depending on the financial viability of the concession, the private party might pay a fee to government, or might receive a subsidy |
| Lease or affermage | A lease or affermage contract is similar to a concession, but with the government typically remaining responsible for capital expenditures. The **World Bank's explanatory notes on water regulation** [#4, pages 36-42] describes lease contracts, as well as concessions | Existing | Maintain and operate, providing services to users | User pays—private party typically remits part of user fees to government, to cover capital expenditures |

| Contract Type(s) | Overview Description and Reference | Type of Asset | Functions Transferred | Payment Mechanism |
|---|---|---|---|---|
| Franchise | "Franchise" is sometimes used to describe an arrangement similar to a lease or affermage contract for existing assets—as for example in **Yescombe** [#2, page 12] | Existing | As above | As above |
| Management | Under a management contract, a private party is paid a fee for managing an existing asset or business. Management contracts transfer limited responsibilities and risk to the private party, and are not always considered as a type of PPP. The **World Bank's explanatory notes on water regulation** [#4, pages 36-42] also described how management contracts are used in the water sector | Existing | Some aspects of operations (management)—typically many operational staff remain public-sector employees | Government pays—usually a fixed element plus performance-related element |
| Private Finance Initiative (PFI) | The United Kingdom was one of the first countries to introduce the PPP concept, under the term "Private Finance Initiative", as described in the House of Lords' review of the PFI program[13]. "PFI" is typically used to describe PPP as a way to finance, build and manage new infrastructure | New | Design, build, finance, maintain—may include some operations, but often not providing services directly to users | Government pays |

## 1.2.2 PPP Experience—Sectors and Services

PPPs have been used in a wide range of sectors, to provide many different kinds of assets and services. Table 1.2.2 below provides just a few examples, and overview resources, to give readers an idea of the range of worldwide experience with PPPs.

Some countries choose to focus their use of PPPs to certain sectors, as described in **Module 2, Section 1: PPP Policy**. This can reflect priorities for investment or for improvement in service performance, or prioritize sectors in which PPPs are expected to be most successful.

Conversely, some countries also define certain sectors, or services within sectors, for which PPPs will not be used. These are sometimes called "core" services—that is, services that should be provided exclusively by the government, and so should not be delegated to the private sector through a PPP. In practice, definitions of "core" services vary depending on local preferences and perceptions. For example, in the healthcare sector in the United Kingdom, PPPs have been used to construct hospitals and provide ancillary services, but the "core" medical services remain publicly-run.[14] On the other hand, the pioneering PPP hospital project in Lesotho included the full range of health services.[15]

---

13. United Kingdom House of Lords Select Committee on Economic Affairs (April 2010) 2nd Report of Session 2009-2010: *Government Response to Private Finance Projects and Off-Balance Sheet Debt* HL Paper 114, pages 8-10.

14. McKee, Edwards, and Atun (2006) *Public-Private Partnerships for Hospitals* Bulletin of the World Health Organization 2006;84:890-896.

15. As described in IFC (2011) *Healthcare and PPPs* Issue 3 of Handshake: IFC's Quarterly Journal on PPPs.

Useful resources providing cross-sector overviews of PPP experience in developing countries include:

- **Farquharson et al**'s book on PPPs in emerging markets [#3] includes case studies of PPPs for a new hospital in Mexico, an upgraded hospital in South Africa, a water concession in the Philippines, a water and electricity services concession in Gabon, a new metro line in Sao Paulo, Brazil, an airport expansion in Jordan, and a review of the PPP program in national highways in India
- **Yong**'s [#5, pages 87-104] chapter on recent PPP experience in Commonwealth developing countries, including case studies of 11 PPP projects, in the water, transport, power, and health sectors in Africa, Asia, and the Caribbean
- A paper by **Farlam on PPP experience in Africa** [#6] presents and draws lessons from eight PPPs, in the transport, prisons, telecommunications, water, power, and tourism sectors
- **The World Bank's review of lessons learned from Output-Based Aid projects** [#7] reviews experience with private participation in infrastructure—including PPP projects—supported by output-based aid, in the communications, roads, energy, water, health, and education sectors.

The PPIAF website, http://www.ppiaf.org/ppiaf/allpublications, includes further reviews of PPP experience in several developing countries. For more information on how PPPs have been used in developed markets, see the **European Investment Bank's European PPP Reports** [#8], which provide a detailed review of country experience and list of PPP projects throughout the region.

**Table 1.2.2: PPPs by Sector—Examples and Resources**

| Sector | Project Types | Overview Sources |
|---|---|---|
| Transport | Roads, tunnels, and bridges.<br>Rail.<br>Mass transit systems.<br>Ports.<br>Airports | The **USDOT Case Studies of Transportation PPPs** reviews international PPP experience with PPPs in transport, including case studies on bridges and highways from the United Kingdom, Europe, Australia, China, India, Israel, and Argentina [#9]<br>**Mandri-Perrott's publication on PSP in light rail** [#10, Annex 1] includes detailed case studies of PPPs for 12 light rail systems in the United Kingdom, Malaysia, the Philippines, Thailand, Canada, and South Africa |
| Water and waste | Bulk water treatment.<br>Water distribution and sewerage systems.<br>Solid waste management services | **Marin** [#11] reviews in detail experience with PPPs for urban water utilities in developing countries, drawing from over 65 example PPPs |
| Power | Generation assets.<br>Distribution systems | **Eberhard et al.**[#12] describes the experience with IPPs in Sub-Saharan Africa |

| | | |
|---|---|---|
| Social infrastructure | Education—school facilities and services.<br>Health—hospitals and other health facilities and services.<br>Prisons.<br>Urban regeneration and social housing projects | A **Deloitte report on how PPPs can help "close the infrastructure gap"** [#13, pages 19-28] provides a helpful overview of PPP experience in a wide range of sectors, particularly social infrastructure.<br>An **IFC publication on healthcare PPPs** [#14] includes examples from several developing countries.<br>**LaRocque's paper on contracting for the delivery of education services** [#15] includes examples of PPPs in the education sector.<br>A **Business News Americas report on social infrastructure concessions** [#16] describes recent experience in Latin America with PPPs across social sectors |

| Key References: How PPPs are Used | | |
|---|---|---|
| **Reference** | | **Description** |
| 1 | Delmon (2010) *Understanding Options for Private-Partnership Partnerships in Infrastructure* Policy Research Working Paper 5173 World Bank | Describes in detail the different PPP contract types and nomenclature, and which also introduces a new classification of PPP contracts intended to clarify and facilitate comparison |
| 2 | Yescombe (2007) *Public-Private Partnerships: Principles of Policy and Finance* Butterworth-Hienemann [ISBN: 978-0-7506-8054-7] | Chapter 1 "What are Public-Private Partnerships" describes the range of PPP structures and how these are classified |
| 3 | Farquharson, Torres de Mästleand Yescombe With Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets* PPIAF, World Bank | Chapter 2 "Defining Public-Private Partnerships" focuses on how PPPs differ from privatization and management contracts; and describes user-fee and availability-based PPPs. Several case studies throughout the book provide examples of PPPs in developing countries |
| 4 | Groom, Halpern, and Ehrhardt (2006) *Explanatory Notes on Key Topics in the Regulation of Water and Sanitation Services* Water Supply and Sanitation Sector Board Discussion Paper Series No.6 June 2006 PPIAF, World Bank | Note 4 "regulation and private sector contracts" describes typical features of concession, lease, and management contracts in the water sector |
| 5 | Yong (ed.) (2010) *Public-Private Partnerships Policy and Practice: A Reference Guide* Commonwealth Secretariat [**ISBN No:** 978-1-84929-020-3] | Section 7 reviews recent PPP experience in Commonwealth developing countries. Annex 5 presents case studies of 11 PPP projects, in the water, transport, power, and health sectors in Africa, Asia and the Caribbean |
| 6 | Farlam (2005) *Working Together: Assessing Public-Private Partnerships in Africa* Nepad Policy Focus Report No. 2, South African Institute of International Affairs | Reviews PPP experience in Africa, with detailed case studies of eight projects in the transport, prisons, telecommunications, water, power, and tourism sectors |
| 7 | Mumssen, Johannes, and Kumar (20110) *Output-Based Aid: Lessons Learned and Best Practices* World Bank | Reviews experience with private participation in infrastructure projects supported by output-based aid, in the communications, roads, energy, water, health, and education sectors |
| 8 | DLA Piper (ed) (2009) *European PPP Report 2009* DLA Piper | Provides an overview of the status and direction of PPP in Europe, detailed reviews by country, and a list of projects in the pipeline and implementation in the report year |
| 9 | United States Department of Transportation (Federal Highway Administration) (2007) *Case Studies of Transportation PPPs around the World* AECOM Consult | Reviews international PPP experience with PPPs in transport, including case studies on bridges and highways from the United Kingdom, Europe, Australia, China, India, Israel, and Argentina |

| Key References: How PPPs are Used | | |
|---|---|---|
| Reference | | Description |
| 10 | Menziesand Mandri-Perrott (2010) *Private Sector Participation in Light Rail-Light Metro Transit Initiatives* World Bank / PPIAF | Annex 1 provides case studies of light rail PPP projects from the United Kingdom, Malaysia, the Philippines, Thailand, Canada, and South Africa |
| 11 | Marin (2009) *Public-Private Partnerships for Urban Water Utilities: A Review of Experiences in Developing Countries* Trends and Policy Options No. 8 PPIAF / World Bank | Reviews the experience of 65 PPPs in the water sector in developing countries, finding consistent improvements in efficiency and service quality |
| 12 | Eberhardand Gratwick (2010) *IPPs in Sub-Saharan Africa: Determinants of Success* Update of paper published in Development Policy Review 2008 | Reviews experiences of IPPs in Sub-Saharan Africa, including a comprehensive list and details of all IPP projects in the region |
| 13 | Eggers and Startup (Deloitte Research) (2006) *Closing the Infrastructure Gap: The Role of Public-Private Partnerships* Deloitte | Page 5 provides a succinct description of different PPP contract types. The report also briefly reviews international PPP experience in transport, water and waste, education, housing, hospitals, defense, and prisons |
| 14 | IFC (2011) *Healthcare and PPPs* Issue 3 of Handshake: International Finance Corporation's Quarterly Journal on PPPs | Examines international experience in healthcare PPPs—particularly in developing countries—and draws lessons for how successes can be replicated. Features the Lesotho Hospital PPP, and also reviews experience in Ghana, India, and Mexico |
| 15 | LaRoque (2006) *Contracting for the Delivery of Education Services: A Typology and International Examples* Fraser Forum (New Zealand) Education Service Delivery | Describes the different ways in which the private sector is engaged in education, including through PPPs. Pages 20-24 focus on international PPP experience in schools |
| 16 | Business News Americas (2011) *Social Infrastructure: The New Frontier for Concessions* Infrastructure Intelligence Series August 2011 | Describes recent experience with PPP in social infrastructure sectors in Chile, Mexico, Peru, and Brazil |

## 1.3. How PPPs Are Financed

Transferring responsibility to the private sector for mobilizing finance for infrastructure investment is one of the major differences between PPPs and conventional procurement. Where this is the case, the private party to the PPP is therefore responsible for identifying investors and developing the finance structure for the project. However, it is important for public sector practitioners to understand private financing structures for infrastructure and also to consider the potential implications for government. This section:

- Provides a brief introduction to how private finance of PPP projects can be structured (Section 3.1)
- Highlights points that governments need to bear in mind when procuring a privately-financed PPP—that is, ways in which the government might need to enable or control how the private party raises finance, to help ensure the project is implemented successfully (Section 3.2)

- Describes different roles for public finance in PPPs—that is, why and how governments may be directly involved in the financing of PPPs (Section 3.3).

The chapter on **PPP Financing in Farquharson et al's book on PPPs in emerging markets** [#1, Chapter 5] provides a helpful overview of some of the topics covered in this section. ***Public-Private Partnerships: Principles of Policy and Finance*** by E. R. Yescombe [#2], and ***Private Sector Investment in Infrastructure: Project Finance, PPP Projects, and Risk*** by Jeffrey Delmon [#3] are more comprehensive resources that cover a wide range of topics on PPP financing. The relevant sections of these books, as well as links to additional resources, are provided throughout the section for more information on specific points.

## 1.3.1 Finance Structures for PPP

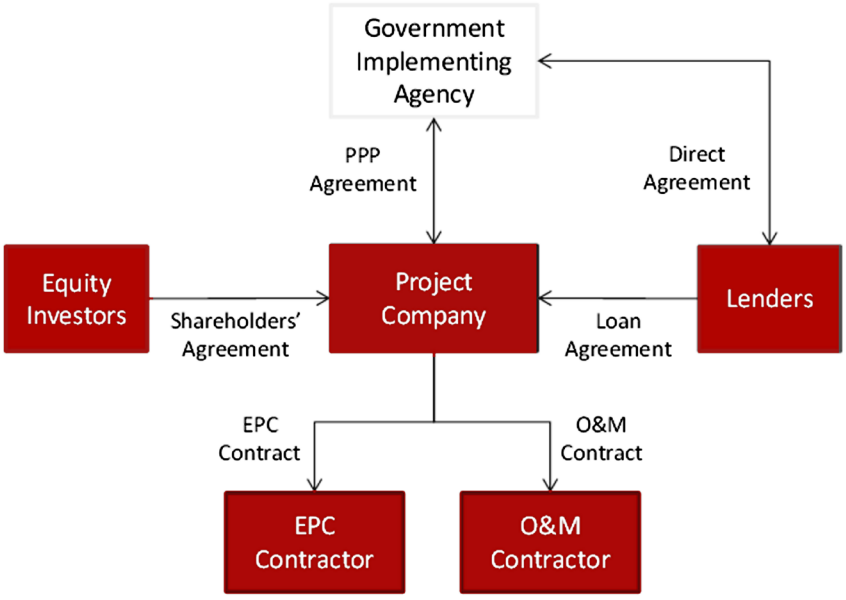
The private party to most PPP contracts is a specific project company formed for that purpose—often called a Special Purpose Vehicle (SPV). This project company raises finance through a combination of equity—provided by the project company's shareholders—and debt, provided by banks, or through bonds or other financial instruments. The finance structure is the combination of equity and debt, and contractual relationships between the equity holders and lenders.

Figure 1.3.1 shows a typical finance and contract structure for a PPP project. The Government's contractual relationship is with the project company. The initial equity investors, who develop the PPP proposal, are typically called project sponsors[16]. Typical equity investors may be project developers, engineering or construction companies, infrastructure management companies, and private equity funds. Lenders to PPP projects in developing countries may include commercial banks, multilateral and bilateral development banks and finance institutions, and institutional investors such as pension funds.

As shown in Figure 1.3.1, the project company in turn contracts with firms to manage design and construction (usually known as an Engineering, Procurement and Construction, or EPC contract), and operations and maintenance (O&M). These contractors may be affiliated with the equity investors. **Yescombe's book on PPP finance** includes examples of PPP structures for different types of PPP [#2, section 1.4].

16. As described by Yescombe [#2, pages 96-100], the project sponsor may subsequently sell their investment to secondary equity investors.

**Figure 1.3.1: Typical PPP Project Structure**




As described in **Farquharson's chapter on PPP financing** [#1, page 53], equity investment is "first in, last out"—that is, any project losses are borne first by the equity investors, and lenders suffer only if the equity investment is lost. This means equity investors accept a higher risk than debt providers, and require a higher return on their investment.

The aim of the project sponsor and its advisors in developing is typically to minimize the cost of finance for the project. Because equity is regarded as more expensive than debt, project sponsors often try to use a high proportion of debt to finance the project.

**Non-recourse project finance for PPPs**

Under non-recourse project finance, lenders can be paid only from the project company's revenues, without recourse to the equity investors. That is, the project company's obligations are ring-fenced from those of the equity investors, and debt is secured on the cash flows of the project. As described in **Yescombe's chapter on project finance for PPPs** [#2, Chapter 8] project finance structures typically involve a large proportion of debt—from 70 to 95 percent. From the equity investors' perspective, this helps manage risk, by limiting exposure to a project, and makes it possible to undertake much larger projects than would otherwise be the case. For lenders, it means undertaking rigorous due diligence, focusing on the project cash flow and contractual structure.

There is a large literature on project finance structures, including several comprehensive text books.The following books provide a starting point for readers interested in exploring the subject further:

- *Modern Project Finance: A Casebook* by Benjamin Etsy. John Wiley and Sons, 2004
- *The Law and Business of International Project Finance: A Resource for Governments, Sponsors, Lawyers, and Project Participants (2nd edition)* by Scott L. Hoffman. Translational Publishers, 2001
- *Principles of Project Finance* by E. R. Yescombe. Academic Press, 2002
- *Project Financing: Asset-Based Financial Engineering* by John D. Finnerty. John Wiley and Sons Ltd, May 2007.

**Alternatives to non-recourse project finance**

While helpful for raising finance for large, highly leveraged investments, project finance comes at a cost. Interest rates for project-finance debt are more expensive than government borrowing, and often more expensive than borrowing by established companies. The transaction cost—setting up the contractual structure, and carrying out adequate due diligence—can make it unattractive for smaller deals. For this reason, many PPPs adapt the non-recourse project finance structure, to achieve greater contractual flexibility, or lower the financing cost.

One option is for project sponsors to back up the project company by providing a **corporate or sponsor guarantee** to the lender, for repayment for all or part of the project debt. Box 1.3.1 provides examples.

**Box 1.3.1: Examples of Project Finance Structure with Corporate Guarantees**

In some cases, a project company may be unable to raise finance on a non-recourse basis. One option is for a major project sponsor to provide a partial or full guarantee on the project debt. For example:

- In 1997, a concession for the eastern section of metro Manila was awarded to the Manila Water Company, a consortium led by the Ayala Corporation of the Philippines, with interests from United Utilities, Bechtel, and the Mitsubishi Corporation. In the wake of the Asian Financial Crisis, the Manila Water Company was unable to raise debt to finance investments on a non-recourse project finance-basis, so Ayala provided a corporate guarantee to back up the project company
- In 1992, an oil pipeline in Colombia was being developed as a joint-venture between the national oil company and international oil companies with the IFC as the main lender. At the time, the IFC was concerned about possible guerilla attacks and the project stalled. To move forward, the sponsors provided a full loan guarantee on the project.

Sources: Esguerra (2003) *The Corporate Muddle of Manila's Water Concessions* WaterAid and Tearfund, page 19; Ahmed & Fang (International Finance Corporation) *Project Finance in Developing Countries* World Bank 1999, Box 5.7 page 68

A finance structure sometimes used to reduce the cost of finance for PPPs is the **forfeiting model**, which can be used for "government-pays" PPP projects.[17] Under this model, once construction is completed to a quality accepted by the government by issuing a "waiver of objection", the government is responsible for the debt service payments to the lender. This can lower the project's financing costs.[18] However, it means the government retains more risk under the PPP, and as debt service payments are no longer conditional on performance, the lender has no interest in project performance during operations The forfeiting model has been widely used in Germany, where over half of the PPPs implemented between 2002 and 2006 used this structure. For more detail on the forfeiting model, see **Daube's article comparing project finance to the forfeiting model** [#4].

Another alternative to lower the cost of finance for a PPP is for the **government to participate in the finance structure**, as described in **Section 3.3: The Role of Public Finance in PPPs**. The government—or a government-owned financial institution—could provide finance as a lender to the project company, or could provide a guarantee to some or all of the project debt.

## 1.3.2 Considerations for Government

When a PPP involves private finance, the project sponsor typically has primary responsibility for developing the finance structure. Nonetheless, there are several ways in which the government may need to influence the financing structure.

At the most basic level, government need to ensure that the project design is "bankable"—that is, able to raise debt. On the other hand, too much debt can undermine risk-transfer, so government may want to limit the amount of debt finance (leverage) allowed. More arcane but still important details include: how to manage risks in going from contract award to financial close; how to deal with the possibility of refinancing project debt; and how to define step-in rights for lenders and the government. These points are described in turn below.

Governments may also participate in the finance structure. Governments can provide debt, equity, or guarantees—either directly, orthrough government-owned financial institutions such as development banks and pension funds. **Section 3.3** describes the role of this kind of public finance in PPPs.

### 1.3.2.1 Bankability

The ability of a project to raise finance is often called bankability. "Bankable" really means that a project can attract not only equity finance from its sponsors, but the required amount of debt. **Delmon's chapter on bankability** [#3, Chapter 4] and **Farquharson's chapter on**

17. See Section 1.1 for an explanation of "government pays" project.

18. This assumes the government cost of borrowing is lower than that of the private company, which might not be true in some developing country cases.

**PPP financing** [#1, pages 54-57] both describe the factors banks will consider in deciding whether to lend to a project.

For a project to be bankable, lenders need to be confident that the project company can service the debt. Under a project finance structure as described in Section 3.1, this means that operating cash flows need to be high enough to cover debt service, plus an acceptable margin. It also means that the risk of variation to the cash flows must be highly likely to stay within the margin. Lenders therefore carefully assess project risks, and how these have been allocated between the parties to the contract.

If too much risk has been allocated to the private party, lenders will reduce the amount they are prepared to lend until the margin of cash flow over debt service is acceptable. When this happens, more equity will be needed. At the same time, the project company needs to be expected to generate high enough returns to compensate its equity-holders for their level of risk.

From the government's perspective, the key considerations for ensuring bankability are therefore the technical and financial viability of the project, and appropriate risk allocation. In **Module 3** of this Reference Guide, **Section 2: Appraising PPP Projects** provides guidance on assessing financial viability of a potential PPP project. **Section 3: Structuring PPP Projects** provides guidance and tools for practitioners on risk allocation.

Moreover, lenders and shareholders both have incentives to reduce their risks and maximize their return. This means that in structuring the PPP, the government undertakes a difficult balancing act—ensuring the project is bankable, while resisting pressure for the government to accept more risk than necessary.

## 1.3.2.2 Limiting the amount of debt allowed

Projects sponsors often have an incentive to finance a PPP with a high ratio of debt to equity—that is, to achieve high leverage. As **Yescombe** [#2, pages 120-121] describes, higher leverage typically enables equity investors to achieve higher returns, and makes it easier to manage the financial structure, since it can be easier to raise debt than equity. Moreover, as described in **Ehrhardt and Irwin** [#5, pages 10-13], governments often provide more protection to debt investors than to equity investors—for example, by providing guarantees on demand designed to ensure revenue can cover debt service—providing a further incentive for high leverage.

However, highly-leveraged projects can also be more vulnerable to default and bankruptcy, as also described in **Ehrhardt and Irwin** [#5, pages 35-38]. The **United Kingdom House of Lords' Review of the PPP Program** describes further the risk of high leverage, particularly when combined with government guarantees, drawing on the United Kingdom experience with a PPP for the London Underground system[19]. Box 1.3.2 below provides an example of a highly leveraged PPP that resulted in default.

19. United Kingdom House of Lords Select Committee on Economic Affairs (April 2010) 2nd Report of Session 2009-2010: *Government Response to Private Finance Projects and Off-Balance Sheet Debt* HL Paper 114 , page 22, on "what happens when things go wrong?"

To ensure a sustainable level of leverage, and large enough equity stake in the project, governments can consider introducing a minimum equity ratio for PPPs. As **Ehrhardt and Irwin** [#5, pages 49-50] note, this can be particularly important if the government is also providing guarantees that are designed to protect lenders' investment. However, restricting an investor's ability to choose its capital structure can increase the cost of capital, as described in a **World Bank Gridline note on financing Indian infrastructure** [#6, page 2]. The authors note that changing termination provisions to provide less of a clear incentive to use debt as another alternative.

**Box 1.3.2: Example of an Over-Leveraged PPP—Victoria Trams and Trains**
The State Government of Victoria awarded five franchises (similar to concessions) for operation of trams and commuter rail in Melbourne, and regional trains in the State of Victoria. The government expected total savings of A$1.8 billion over the life of the contract. However, the total equity contribution, including performance bonds, from the sponsors was only A$135 million, which is only 8 percent of the total gains. The payment structure of the PPP relied heavily on the expected growth in patronage and reduction in costs. When the growth and cost reductions were not realized, the franchisees experienced losses. Because the equity at stake was relatively low, the operators could walk away from the franchises, rather than endure the losses trying to improve it. This put the government in a position of having to renegotiate the contracts with the existing operators.

Source: Ehrhardt and Irwin (2004) Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy towards Leverage, Risk Allocation, and Bankruptcy World Bank Policy Research Working Paper 3274, April 2004

## 1.3.2.3 Risks in going from award to financial close

A PPP contract is typically awarded and signed before the project reaches financial close—that is, before the finance for the project is fully secured. In the interim period, lenders complete their due diligence process, including detailed review of the PPP agreements. Loan agreements also often set "conditions precedent" that must be in place, before the project company can access funds from the loan.

This process creates a risk that the project could be delayed, or even fall through, if the winning bidders are unable to raise finance on the expected terms. As described by **Farquharson** [#1, page 125], government can be under pressure to change the contract terms to meet lenders' requirements, since re-opening the procurement process at this stage would cause delays and additional transaction costs for the government.

Governments have a few options available to mitigate this risk. As **Farquharson** also explains, bidders can be required to provide a bond, which may be called if the preferred bidder fails to achieve financial close within a certain period. This may encourage bidders to develop more concrete financing plans before submitting bids. Another option, as described by **Delmon** [#3, pages 445-446], is for governments to require bids with financing commitments already in place (called an "underwritten" bid). In this case, lenders must complete due diligence before the tender process is complete. However, both these options increase the cost of bidding, which risks deterring bidders and undermining competition.

Another approach is to introduce stapled financing. Stapled financing is a pre-arranged financing package for the project, developed by the government and provided to bidders during the tender process. The winning bidder has the option, but not the obligation, to use the financial package for the project. Stapled financing is common in Mergers and Acquisition deals, and has recently been explored by some governments for infrastructure projects—for example, in Egypt[20].

### 1.3.2.4 Refinancing of project debt

"Refinancing" means taking on new debt to pay off existing loans. The project company and its sponsors may have two main reasons to refinance debt that was initially used to finance the project.

First, the project may have been unable to obtain a financing package with a long enough maturity to match the project's length. This could occur because long-term debt is not available at the time when the project awarded, or because lenders view the project as too risky to extend credit with a long maturity. In this case, the project could proceed with a shorter-term loan, as described in **Yescombe's chapter on financial structuring** [#2, Chapter 10, pages 157-158]. This creates a refinancing risk—that is, the risk that the shorter-term loan cannot be refinanced at the expected terms. The PPP contract should specify who bears refinancing risk, as described in **Module 3, Section 3: Structuring PPP Projects**.

One option to mitigate refinancing risk is "take-out financing", in which a second lender promises to take over a loan at some future point—thereby encouraging the original lender to provide longer-term debt than might otherwise be the case. For example, the **Indian Infrastructure Finance Company Limited** (IIFCL) has established a take-out financing scheme for infrastructure projects[21].

Refinancing can also provide an opportunity for the project company and its sponsors, if more favorable terms become available. Because infrastructure projects have long durations, capital markets could change during the life of the project and offer better terms on the existing

---

20. See for example "*Egypt's Local Banks Reach for their Staples*", Global Water Intelligence Volume 11, Issue 5 (May 2010).

21. See "*Takeout Finance Scheme for Financing Viable Infrastructure Projects*" available on the IIFCL website, http://www.iifcl.org/takeout_finance.pdf.

project debt. Lenders also tend to offer better financing terms to projects with demonstrated track records and have already moved past initial risks, such as construction. **Yescombe's section on debt refinancing** [#2, pages 297-307] further describes the potential gains to equity investors from refinancing.

Refinancing with more favorable terms can lower overall costs for users or government, improve returns to investors, or both. The government needs to consider upfront how benefits of refinancing will be treated. Options include:

- **Do nothing**—allow equity-holders to gain from refinancing through higher dividend payments
- **Share gains between project sponsors and customers**, by including in the PPP contract or PPP regulation a clause that means benefits of refinancing must be reflected in the price paid for the asset or service
- Building into the PPP contract the **right for the government to require or request refinancing of the project debt**, if it believes that more favorable terms are available in the market.

Several governments have introduced rules for how PPP refinancing benefits will be treated, as described by **Yescombe** [#2, pages 301-302]. For example, in 2004 the United Kingdom's Treasury introduced into its standard PFI contracts a 50:50 split of any refinancing gain between the investors and the government; this was subsequently revised to a 70:30 split in favor of the government[22]. South Korea has also introduced a similar provision in its legislation governing PPPs. Since 2008, the United Kingdom's government has also reserved the right to request for refinancing of project debt to take advantage of more favorable capital market conditions[23].

## 1.3.2.5 Step-in rights

Step-in rights refer to a power under the contract for the government or lender to take control of the project company in certain situations. Step-in rights for the government are normally reserved for situations in which the project poses significant health and safety risks, threats to national security, or when legal requirements call for the government to take over the project. The government may also terminate the PPP contract and take over the project if the project company fails to meet service obligations.

Lenders generally require step-in rights that come into effect if the project company fails to meet its debt service obligations, or if the PPP contract is under threat of termination for

22. United Kingdom House of Lords Select Committee on Economic Affairs (March 2010) 1st Report of Session 2009-2010: Private Finance Projects and Off-Balance Sheet DebtVolume 1: ReportHL Paper 63-I, Paragraph 174.

23. HM Treasury (October 2008) Standardisation of PFI Contracts Version 4 Addendum: Amended Refinancing Provisions.

failure to meet service obligations. In this situation, the lenders would typically appoint new senior management or another firm to take over the project company.

It is important that both the government and lenders have a clear framework and timeline for invoking their step-in rights so they are informed when problems start to occur and can take remedial actions. **Module 3** of this Reference Guide, **Section 4: Designing PPP Contracts** provides more detail on how step-in rights can be built into a PPP contract.

## 1.3.3 The Role of Public Finance in PPPs

Private finance is not a defining characteristic of a PPP—governments can also finance PPP projects, either in whole or in part. Reducing the amount of capital investment needed from the private party reduces the extent of risk transfer—weakening private sector incentives to create value for money, and making it easier for the private party to walk away if things go wrong. (See **Section 1.3.2.2** on the importance of ensuring enough private equity investment is at stake). Nonetheless, there are several reasons why governments may choose to provide finance for PPP projects. These include:

- **Avoiding excessive risk premiums**—the government may consider the risk premium charged by the private sector for the project to be excessive, in relation to the actual project risks. This can be a difficult call to make, since financial markets are usually better at assessing risk than governments, but can apply particularly for new projects or markets, or during financial market disruptions
- **Mitigating government risk**—where project revenues depend on regular payments from government, this **creates** a risk for the private party, which will be reflected in the project cost. Where reliability of government payments may be in doubt, this means that providing subsidies or payments upfront in the form of loan or grant finance, rather than on-going payments,could improve the bankability and lower the cost of the project
- **Improving availability or reducing cost of finance**—particularly when capital markets are under-developed, or disrupted, the availability of long-term finance may be limited, governments may choose to provide finance at terms that would otherwise be unavailable. Governments often have access to finance on concessional terms, which they may pass on to lower the cost of infrastructure projects. This may also be part of a broader policy of involving state financing institutions to provide long-term lending for developmental purposes.

There are also several different ways in which governments can contribute to the financing structure of a PPP. Governments may provide loan or grant finance directly to the project company, or provide a government guarantee on a commercial loan. Government-owned development banks or other finance institutions can also be involved—either providing finance to PPPs as part of a broader portfolio, or established specifically to support the PPP program. Finally, governments may simply not transfer the financing function to the PPP

project to the private sector, instead retaining on-going responsibility for capital expenditures. These options are described in more detail below.

The rationale for government financial support to PPPs may be strengthened during periods of capital market disruption, and many governments introduce specific forms of financial support in response. Box 1.3.3 describes how some governments have supported PPPs during the Global Financial Crisis of the late 2000s.

**Box 1.3.3: Pursing PPP During the Global Financial Crisis**

The Global Financial Crisis of the late 2000s significantly reduced the availability of debt finance for PPP projects and similar investments. Fewer lenders were prepared to lend to PPP projects—in developed and developing markets alike—and terms became tougher. An **IMF paper** [#11] presents evidence on the impact of the financial crisis on PPPs.

Several governments responded to this challenge by introducing specific measures to support PPP through the crisis. In the United Kingdom, the Treasury established an Infrastructure Finance Unit (TIFU), to lend at commercial rates to PPP projects that were unable to raise enough commercial bank finance. A **World Bank note on the TIFU** [#10] describes the United Kingdom's experience with PFI during the credit crisis. **Foster's paper on the experience in Victoria, Australia** [#12] describes how the government adapted on a project-by-project basis, by changing how certain financial risks were allocated, including by offering short-term guarantees.

An **EPEC paper on the financial crisis and the PPP Market** [#13] provides further ideas for governments on how to support PPPs under these circumstances. These include changes to procurement approaches, providing State guarantees or co-lending, particularly as a short-term measure, and adapting PPP structures to attract different types of investor.

## 1.3.3.1 Loan or grant finance directly from government to project company

Governments may provide finance directly to a PPP, in the form of loans or upfront grant subsidies. This can help mitigate government risk, as described above, or be a means to make finance available at better terms than would otherwise be possible. For example,

- In the United States, the **Transportation Infrastructure Finance and Innovation Act (TIFIA)** established a flexible mechanism for the United States Department of Transport to provide loans (as well as loan guarantees) directly to private and state project sponsors for eligible projects. The credit assistance is offered on flexible terms, and typically takes a and subordinated position, which in turn makes it easier to attract more private capital [#7, Chapter 4]

- **India's Viability Gap Fund** uses funds appropriated from the national budget to provide upfront capital subsidies for PPP projects, as described in **Module 2**, **Box 2.4.2: Viability Gap Funding in India**. The Indian government's guidelines on financial support for PPP in Infrastructure [#8] provide more information.

The willingness of the public sector to provide funds can also act as a signal to help build confidence of private investors. For example, after the 2008 financial crisis, the United Kingdom's Treasury recognized several infrastructure projects could have difficulty raising debt and were in danger of being scrapped. The Treasury created **the Treasury Infrastructure Finance Unit (TIFU)** to lend at commercial rates to PPP projects that were unable to raise enough commercial bank finance. The unit funded one major project in April 2009: the Greater Manchester Water project. According to a **United Kingdom National Audit Office report** [#9, page 8], the Treasury's willingness to lend improved market confidence, and as of July 2010, 35 further projects had been agreed without public lending.

### 1.3.3.2 Government guarantee of commercial loan to project

Rather than providing lending directly, governments may instead guarantee repayment of debt provided by commercial sources, in case of default by the private party. **Farquharson et al** [#1, page 63] notes that guaranteeing project debt undermines the risk transfer to the private sector. For this reason, governments often provide only partial credit guarantees—that is, a guarantee on repayment of only a part of the total debt.

Partial credit guarantees have been used by both developed and developing country governments to help support their PPP programs. For example:

- In 2000, **Poland guaranteed EUR358 million in subordinated debt from the EIB** for the A2 Motorway concession. The guarantee helped the concessionaire raise commercial debt for the project[24]
- **Korea's Infrastructure Credit Guarantee Fund** guarantees project debt through a counter-guarantee structure. That is, the Fund guarantees an on-demand term loan provided by a financial institution, that can be called by the project to meet its senior debt service payments[25]
- **Kazakhstan has provided guarantees on infrastructure bonds** issued for its transport PPPs. The guarantees on the bonds by the government gave security for the pension funds to invest in the projects.[26]

The **Government of Peru** has introduced a financing structure for PPPs that also effectively

---

24. See the description of the project financial structure in the following presentation: Kerali (undated) *Public-Private Partnerships, Lessons from the Roads Sector*, World Bank.

25. See description of the ICGF on pages 6-7 of Fitch Ratings (2006) *Outlook for Infrastructure Finance in Korea: Partnerships at Work* International Public Finance/Project Finance Special Report).

26. Described in USAID (30 June 2008) *Kazakhstan: PPP Opportunities in a Young Country.*

turns the government's on-going payment obligations into a form of guarantee on project borrowing. The "CRPAO" structure is described in Box 1.3.4.

The use of guarantees should be carefully considered, and targeted at risks which the government is best placed to manage. Guarantees that are inappropriately used by the government can risk increase its fiscal exposure, while reducing value for money by reducing real risk transfer to the private sector, as described in Sections 1.**3.2.2 on the danger of over-leverage,** and 1.**1.1.2 on the lack of fiscal clarity from PPPs**. For more information on government guarantees and public financial management for PPPs, see **Module 2** of this Reference Guide, **Section 4: Public Financial Management Framework for PPPs**.

**Box 1.3.4: CRPAOs in Peru**

In Peru, an innovative financing structure has been developed to finance construction of its road concessions. The Government of Peru issues PAOs (Pago Anual de Obras or "annual payments for work") to the private contractor for completing construction milestones. PAOs are obligation of the Government of Peru to make dollar-denominated payments on an annual basis (similar to bonds). After they are issued, the payments are not linked to the performance or operation of the roads and are irrevocable and unconditional. Debt for the project is raised through bonds that are backed by the securitization of the PAOs, known as CRPAOs (Certificado de Reconocimiento de Pago Annual de Obras).

Peru first used this financing structure in 2006 to finance the first 960 km piece of the IIRSA Interoceania Sur. The project raised US$226 million in debt for the project with a US$60 million partial credit guarantee from the Inter-American Development Bank (IADB). Two subsequent pieces of the Interoceania Sur have also used the CRPAO financing structure.

Source: Fitch Ratings (2006) *IIRSA Norte Finance Limited* Structured Finance, July 20, 2006; USAID (2009) *Enabling Sub-Sovereign Bond Issuances: Primer and diagnostic checklist* FS Series #1 Financial Sector Knowledge Sharing Project, Feb 2009.

## 1.3.3.3 Development bank or other state finance institution involvement in PPPs

Many governments have established publicly-owned development banks or other finance institutions, which may provide a range of financial products to PPP projects. These financial institutions may be capitalized by the government, and can often also access concessional financing. However, they often operate more or less as commercial finance institutions, which may be better-placed to assess the viability of a proposed PPP project than the government itself.

In some cases, established development banks may expand their activities into the PPP sector. For example, the **Banco Nacional de Desenvolvimento Econômico e Social in Brazil (BNDES)** has been a major lender to private infrastructure projects in Brazil[27].

Alternatively, governments may establish finance institutions specifically to serve PPPs, and sometimes other infrastructure investments. For example:

- The **India Infrastructure Finance Limited (IIFL)** was established in 2006 to provide long-term debt to viable infrastructure projects undertaken by public or private companies. In 2009, the IIFL obtained a US$1.2 billion line of credit from the World Bank for to on-lend to infrastructure projects in India. IIFL has introduced some innovative products—including the take-out financing product described in Section 1.3.2.4[28]
- The **Indonesian Infrastructure Guarantee Fund (IIGF)**, which was established in 2009 as a state-owned company to provide guarantees for infrastructure projects under PPP schemes.

Government-owned finance institutions can also be used to provide PPP policy coordination and enforcement, by establishing clear rules and requirements for when financing will be available. This can particularly apply when a financial institution is set up specifically to serve the needs of a PPP program. For example, in Mexico most PPPs are implemented with the support of FONADIN, an infrastructure investment fund under the national development bank BANOBRAS. The operating rules for FONADIN effectively established the rules and procedures by which PPP projects will be implemented, as described in Box 1.3.5.

**Box 1.3.5: Mexico's FONADIN**

Prior to 2012, Mexico had no PPP Law. However, most government agencies that implement projects through PPP schemes do so with the support of the Fondo Nacional de Infraestructura (FONADIN)[29]. In addition to providing subsidized lending and, in some cases grants, FONADIN can help agencies in providing grants for the preliminary studies for the project, preparing the project documentation and implementing the tender process.

In practice, this has meant that the **Presidential Decree that established FONADIN** in 2008 has effectively governed most PPP projects. Under that decree, the **Rules of Operation of FONADIN** set out the scope, and the processes and procedures to identify, assess, and approve PPP projects.

Source: BANOBRAS (2000) *FONADIN Reglas de Operacion* (Rules of Operations); FONADIN website: http://72.3.227.172:1111/productosyservicios/productos/paginas/fonadin.aspx.

27. See the BNDES website www.bndes.gov.br, and BNDES Annual Report 2010.

28. See www.iifcl.org. Information on the World Bank credit available online (as of December 2011) at: http://www.worldbank.org.in/WBSITE/EXTERNAL/COUNTRIES/SOUTHASIAEXT/INDIAEXTN/0,,contentMDK:22322364~menuPK:295589~pagePK:2865066~piPK:2865079~theSitePK:295584,00.html.

### 1.3.3.4 On-going government funding of capital expenditures

Under some types of PPP—particularly lease or affermage contracts for existing infrastructure networks, as described in Section 2.1: PPP Contract Types—the government remains responsible for on-going capital investment in the network or system. This provides a way to reduce private sector risk in PPPs for the management of water or electricity distribution systems, while providing on-going subsidy to the sector. For example, in **Senegal's water sector** the government established an Asset Holding Company, with contractually-defined responsibilities for capital expenditure, to complement its contract with private sector operator for managing the water system.[30]

| Key References: How PPPs Are Financed | | |
|---|---|---|
| | **Reference** | **Description** |
| 1 | Farquharson,Torres de Mästle, and Yescombewith Javier Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets* World Bank / PPIAF | Chapter 5 provides an overview of private finance for PPPs, focusing in particular on challenges faced in developing countries |
| 2 | Yescombe (2007) *Public-Private Partnerships: Principles of Policy and Finance* Butterworth-Hienemann [ISBN: 978-0-7506-8054-7] | Provides comprehensive coverage of PPP financing: putting PPPs in context; describing financial analysis of PPPs and how this informs investment decisions by both public and private parties; debt financing structures and sources; how PPP financing plans are constructed; and how financing requirements are reflected in contractual terms |
| 3 | Delmon (2009) *Private Sector Investment in Infrastructure: Project Finance, PPP Projects and Risks*, Second Edition World Bank Apsen Publishers Inc. [ISBN: 978-90-411-2714-3] | Also covers a wide range of topics on PPP financing. These include an introduction to project finance structures and typical terms (Chapter 2); typical contractual arrangements for a PPP (Chapter 3); and bankability (Chapter 4) |
| 4 | Daube, Vollrath, and Alfen (2007) *A Comparison of Project Finance and the Forfeiting Model as Financing Forms for PPPs in Germany* International Journal of Project Management | Describes the forfeiting model used in Germany as an alternative to project finance, to lower financing costs for PPP projects |
| 5 | Ehrhardt and Irwin (2004) *Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy toward Leverage,Risk Allocation, and Bankruptcy* World Bank Policy Research Working Paper 3274, April 2004 | Describes how high leverage combined with high-risk projects and a reluctance to allow a PPP company to go bankrupt can create problems for PPPs, and suggests options to help address the problem. Includes case studies of PPPs in Australia, the United Kingdom, Brazil, and Mexico. |
| 6 | Harris and Tadimalla (2008) *Financing the Boom in Public-Private Partnerships in Indian Infrastructure: Trends and Policy Implications* World Bank Gridlines Note No. 45, December 2008 | Describes how financing structures for PPPs in India have evolved as the use of PPPs has increased since the mid-1990s—in particular, noting an increasing proportion of debt financing—and provides some policy lessons |

29. Exceptions are typically projects that are "self-financing"—that is, projects that generate revenues that are sufficient to cover the costs. These projects have been developed by the responsible agencies, following public procurement legislation. The two government entities that generally follow this path are CFE (the national electric company) and PEMEX (the national oil company).

30. Described in World Bank (2004) Urban Water Sector Reform in Senegal: Innovative Contract Design to Expand Services to the Poor Water Feature Stories Issue 4, March 2006.

| Key References: How PPPs Are Financed | | |
|---|---|---|
| | **Reference** | **Description** |
| 7 | Federal Highway Administrator (2010) *Innovative Finance Primer* (update to the *Innovative Finance Brochure*, published by FHWA in 2002 Publication No. FHWA-AD-02-006)United State Office of Innovative Program Delivery, Federal Highway Administration, United States Department of Transportation August 2010 | Outlines the United States financing mechanisms for highway infrastructure. Chapter 4 describes three mechanisms by which the United States government may provide credit assistance to private investors in roads. |
| 8 | Department of Economic Affairs (2008) *Scheme and Guidelines for Financial Support to Public Private Partnerships in Infrastructure* PPP Cell, Ministry of Finance, Government of India New Delhi | Describes India's Viability Gap Financing scheme for providing capital subsidies to private infrastructure projects |
| 9 | United Kingdom House of Commons Committee of Public Accounts (2010) *Financing PFI Projects in the Credit Crisis and the Treasury's Response* Ninth Report of Session 2010–11 United Kingdom House of Commons | United Kingdom Treasury outlines their response to the financial crisis, which included establishing an Infrastructure Finance Unit to provide lending at commercial terms to projects unable to raise debt from commercial banks |
| 10 | Farquharsonand Encinas (2010) *The UK Infrastructure Finance Unit: Supporting PPP Financing During the Global Liquidity Crisis* The International Bank for Reconstruction and Development | Summarizes the United Kingdom's experience with PFI during the financial crisis, and describes the Treasury Infrastructure Finance Unit |
| 11 | Burger, Tyson, Karpowicz,and Delgado Coelho (2009) *The Effects of the Financial Crisis on Public-Private Partnerships* International Monetary Fund (IMF) Working Paper 09/44 | Investigates the impact of the global financial crisis on PPPs, and the circumstances under which providing support to new and existing projects is justified |
| 12 | Foster (2010) *Preserving the Integrity of the PPP Model in Victoria, Australia, during the Global Financial Crisis* The International Bank for Reconstruction and Development | Describes how the government of the State of Victoria, Australia, adapted its PPP program to the global financial crisis, by making changes on a project-by-project basis to how certain financial risks were allocated |
| 13 | European PPP Expertise Centre (EPEC) (2009) *The Financial Crisis and the PPP Market: Potential Remedial Actions* European PPP Expertise Centre (EPEC) | Provides ideas for governments on ways to support PPPs during the Global Financial Crisis. These include changes to procurement approaches, providing State guarantees or co-lending, particularly as a short-term measure, and adapting PPP structures to attract different types of investor. |

# Module 2: Establishing the PPP Framework

PPPs can be implemented on a one-off basis, without any specific supporting policy framework. However, most countries with a successful PPP program have built that program on a sound PPP framework. The "PPP framework" means the policy, procedures, institutions, and rules that together define how PPPs will be implemented.

Establishing a clear PPP framework publicly communicates the government's commitment to PPPs. It also defines how projects will be implemented, helping ensure good governance of the PPP program—that is, promoting efficiency, accountability, transparency, decency, fairness, and participation in how PPPs are implemented, as described in Box 2.1 below. This will help generate private sector interest, and public acceptance of the PPP program.

**Box 2.1: Good Governance for PPPs**

The United Nations Economic Commission for Europe (UNECE) Guidebook on Promoting Good Governance in PPPs defines governance as "the processes in government actions and how things are done, not just what is done". All elements of the PPP Framework described in this module contribute to the governance of the PPP program. UNECE further describes "good governance" as encompassing the following six core principles:

- Efficiency—use of resources without waste, delay, corruption, or undue burden on future generations
- Accountability—the extent to which political actors are responsible to society for their actions
- Transparency—clarity and openness in decision-making
- Decency—development and implementation of rules without harming people
- Fairness—equal application of rules to all members of society
- Participation—involvement of all stakeholders.
- One of the aims of establishing a sound PPP framework is to ensure these principles of good governance are followed in the implementation of PPP projects.

For further description of good governance in the context of PPPs, see the UNECE Guidebook on Promoting Governance for PPPs [#1, pages 13-14] Section 2.1: Principles of Good Governance in PPPs.

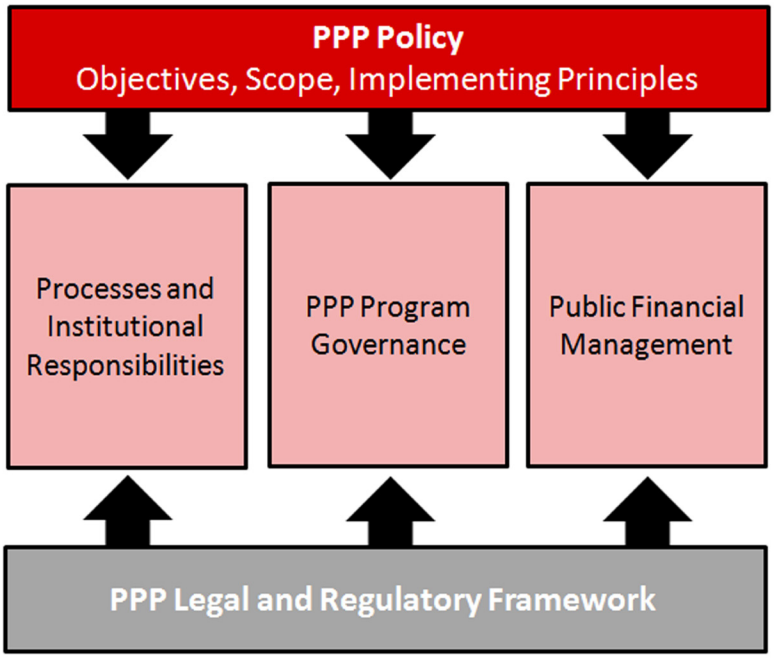
## Defining the PPP framework

There is no single "model" PPP framework. A government's PPP framework typically evolves over time, often in response to specific challenges facing the PPP program. In the early stages of a program the emphasis may be on enabling PPPs, and creating and promoting PPP opportunities. On the other hand, where many PPPs have already been implemented on an ad-hoc basis, concern about the level of fiscal risk in the PPP program may be the impetus for strengthening the PPP framework. In this case, the focus may be on strengthening control over how PPPs are developed, or improving public financial management for PPPs, as for example in South Africa.[31]

31. See for example Burger (2006) *The Dedicated PPP Unit of the South African Treasury* paper presented at the OECD Symposium on Agencies and PPPs, also referenced in Section 2: PPP Processes and Institutional Responsibilities.

The best solutions to similar challenges will likely also vary between countries—depending among other things on the country's existing legal framework, investment environment, government institutions, and capacity. Figure 2.1 illustrates the possible components of a "comprehensive" PPP framework into component parts, while Box 2.2 below provides a brief overview of the PPP frameworks in South Africa and Chile—both countries with well-respected PPP programs.

**Figure 2.1: PPP Framework Overview**




As shown in Figure 2.1, the components of a comprehensive PPP framework can include the following:

- **PPP policy**—articulation of the government's intent to use PPPs to deliver public services, and the objectives, scope, and implementing principles of the PPP program
- **PPP processes and institutional responsibilities**—the steps by which PPP projects are identified, developed, appraised, implemented, and managed; and the roles of different entities in that process. A sound PPP process is efficient, transparent, and is followed consistently to effectively control the quality of PPP projects
- **PPP program oversight**—how other entities such as the legislature, auditing entities, and the public, participate in the PPP program, and hold those responsible for implementing PPPs accountable for their decisions and actions
- **Public financial management approach**—how fiscal commitments under PPPs are controlled, reported, and budgeted for, to ensure PPPs provide value for money, without placing undue burden on future generations, and to manage the associated fiscal risk

- **Legal and regulatory framework**—the laws and regulations that underpin the PPP program—enabling the government to enter into PPPs, and setting the rules and boundaries for how PPPs are implemented. This can include PPP-specific legislation, other public financial management laws and regulations, or sector-specific laws and regulations.

The sections of this Module describe each of these elements of a PPP framework, providing examples and guidance for practitioners. In practice, these elements are closely inter-related. For example a well-controlled process for developing PPPs that considers their fiscal consequences and builds in finance ministry control is central to sound public financial management of the PPP program. Comprehensive public reporting of fiscal commitments to PPPs in turn enables effective oversight of the PPP program. These linkages are highlighted throughout this Module.

**Box 2.2: PPP Frameworks of Chile and South Africa**

Chile and South Africa are both countries with substantial PPP experience. As of 2009, Chile had implemented 50 projects in roads, airports, jails, reservoirs, urban transport, and other sectors. From 2000 to 2009, South Africa implemented 24 PPP projects totaling over SAR10 billion (US$1.2 billion) of total investment. Both have well-defined PPP frameworks, described in turn below.

**Chile**

The use of PPP in Chile was enabled in 1991 by Presidential Decree 164, which set out much of the framework still in use today. This law was updated in 2010 by the National Concessions Law, with a view to addressing some of the challenges Chile had faced in its PPP program to date. A history of the concession law, published by the Chilean Congress, summarizes the changes that were made.

The Concessions Law sets out the institutional responsibilities and processes for developing and implementing PPPs. The Concessions Unit of the Ministry of Public Works (MOP) acts as implementing agency for all PPPs in Chile. The MOP may receive proposals from government agencies or private investors, and follows a clearly-defined process to further appraise the project. If the project is a good PPP candidate, the MOP is responsible for preparing the detailed tender documents, carrying out a tender process, and selecting and announcing by decree the winning bidder. The MOP then manages the PPP contract over the project lifetime, receiving regular reports from the concessionaire—with the ability to request additional audits to check the information received—and managing any changes needed to the contract.

Other agencies with important roles include:

The Ministry of Finance, which must approve PPP tender documents before they can be published, any changes made during the tender process, and any changes made through the lifetime of the contract. The Ministry of Finance has established a Contingent Liabilities Unit,

which reviews all projects in detail prior to finance approval, and calculates the value of the government's liabilities initially and throughout the contract. The Minister of Finance must also sign the decree that officially awards the PPP contract to the winning bidder
The Concessions Council—led by the minister of public works, with an advisor selected by the MOP, and four other advisers representing the Civil Engineering, Economics and Management, Law, and Architecture departments of the University of Chile—must approve the initial decision to carry out project as a PPP
The National Planning Authority must review and approve the technical and economic analysis of the project.

Disputes that emerge during the implementation of the project can be brought by either party to a Technical Panel. If the solution proposed by the technical panel does not resolve the problem, the parties may bring up the Arbitration Commission or the Appeals Court of Santiago.
The Treasury (fisco) makes all the payments established in the PPP contract in accordance with the procedures and milestones stipulated in the PPP contract. The payments incorporated in the contract were previously approved by the Ministry of Finance during the project approval phase. Payment commitments are structured where possible to reduce fiscal risk—for example, demand guarantee payments are typically due the year after a demand shortfall, once the amount is known.
Chile publicly discloses its commitments to PPP projects in a detailed annual contingent liabilities report. Information on the PPP program is also included in budget documentation.

**South Africa**
The legislation governing PPPs is the Treasury Regulation 16, issued under the Public Finance Management Act of 1999. The Treasury regulation broadly sets out the PPP process, requirements and approvals, and institutional responsibilities of involved entities.
PPP processes and institutional responsibilities are established in a detailed PPP Manual This manual describes how the treasury regulations should be interpreted, and provides detailed guidance at every step in the PPP process, each in a separate module. Each module of the manual is issued as a Practice Note of the National Treasury, and can be updated separately.
Responsibility for implementing PPP projects rests with the contracting authority. Contracting authorities must identify and appraise PPP projects, and manage the tender process to select the winning bidder, following the detailed guidance and requirements (including checklists for each stage and standard forms) set out in the manual. The contracting authority is responsible for managing PPP projects through the contract lifetime, which includes ensuring the project meets performance standards, resolving disputes, and reporting on the PPP agreement in the institution's annual report.
PPP approvals are made by the Treasury. Projects are submitted for approval at four points, after: (1) the feasibility study has been completed, (2) the bid documents have been prepared,

(3) bids have been received and evaluated, and (4) negotiations have concluded and the PPP contract is in its final form. The Treasury established a PPP Unit in 2004, to review all PPP submissions and recommend the PPP for approval. The Treasury's evaluation focuses particularly on the value for money and affordability of the PPP project.
Payments for PPP commitments are made through the annual appropriations process. The Accounting Standards Board of South Africa has published guidelines for public sector accounting for PPPs. The PPP Manual also sets out the auditing requirements for PPP. The Auditor General's annual audits of contracting authorities should check that the requirements of the PPP regulations have been met, and the financial implications are reflected in the institution's accounts. The Auditor General may also conduct forensic audits if any irregularity is suspected.

Sources: Gobierno de Chile (2010) *Ley y Reglamento de Concesiones de Obras Públicas*; Biblioteca del Congreso Nacional de Chile (2010) *Historia de la Ley No. 20.410: Modifica la Ley de Concesiones de Obras Públicas y otras normas que indica*, Diario Oficial January 2010; South Africa National Treasury PPP Unit (2004) *Public Private Partnership Manual: National Treasury PPP Practice Notes issued in terms of the Public Finance Management Act*; Irwin and Mokdad (2010) *Managing Contingent Liabilities in Public-Private Partnerships: Practice in Australia, Chile, and South Africa* World Bank/PPIAF; Burger (2006); *The Dedicated PPP Unit of the South African Treasury* paper presented at the OECD Symposium on Agencies and PPPs.

For more on the typical components of a PPP framework, see **Farquharson et al** [#2, pages 15-16] and **Yong** [#3, page 30], which both provide brief overviews. Detailed assessments of PPP frameworks in a range of countries are available in the following:

- The **Economist Intelligence Unit's "Infrascope" index for Latin America and the Caribbean** [#4]—this annual publication sets out an index for assessing countries' readiness to carry out sustainable PPPs, and uses the index to evaluate the PPP environment in 19 countries in the region. The index includes many of the PPP framework elements described above, as well as the country's operational experience with PPPs, the availability of finance and financing support mechanisms, and the overall investment climate

- A **Castalia report to the World Bank Institute, benchmarking Indonesia's PPP program against other successful PPP programs** [#5]—Appendix A sets out the benchmarking approach, and describes in detail the PPP frameworks of Indonesia, Colombia, the Philippines, the Netherlands, and South Africa

- **Irwin and Mokdad's paper on managing contingent liabilities in PPPs** [#6] which describes the PPP approval, analysis and management approach in Australia, Chile, and South Africa, with a focus on fiscal management.

## Establishing the PPP framework

A PPP framework can be established in different ways. The options available typically depend on the legal system of the country, and on the norm for establishing government policies, procedures, institutions, and rules. They can include:

- **Policy statement**—common in developed countries with Westminster-style governments, PPP policy statements typically set out at least the objectives, scope, and implementing principles of the PPP program—as described further in Section 2.1 of this Module. Policy statements may also outline procedures, institutions, and rules by which the objectives and principles will be put into practice
- **Laws and regulations**—as described further in Section 2.5 of this Module, civil law countries often use legislation to enable PPPs to be pursued, and set out the rules for how PPPs will be implemented; many common law countries also introduce PPP legislation. This can be a dedicated PPP law, a component of broader public financial management law, subordinate legislation such as executive orders, presidential decrees, or regulations, or a combination
- **Guidance materials**, such as manuals, handbooks, and other tools. These may be used to establish PPP procedures upfront, or developed over time to supplement policy statements or legislation, as a codification of good practice. Module 3 of this Reference Guide provides and draws from many examples of good-quality guidance material from national PPP programs.

In additionto cross-sector PPP frameworks, policies or laws at the sector level can enable the use of PPPs and create a framework for PPPs within the sector.

Many PPP programs use a combination of these approaches. Table 2.1 below provides some examples from both developed countries and emerging markets.

| Overview References: PPP Framework | | |
|---|---|---|
| **Reference** | | **Description** |
| 1 | United Nations Economic Commission for Europe (UNECE) (2008) *Guidebook on Promoting Good Governance in Public-Private Partnerships* United Nations | This guide for policy makers provides a detailed direction on how to improve governance for PPP programs. The guide also gives insight into what are the key challenges and possible frameworks for solutions |
| 2 | Farquharson, Torres de Mästle,and Yescombe, with Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets* PPIAF, World Bank | This guide for public sector practitioners describes how to develop and implement a PPP successfully, by developing a marketable project and attracting the right private partners. Section 3 focuses on setting the PPP framework |
| 3 | Yong (ed.) (2010) *Public-Private Partnerships Policy and Practice: A Reference Guide* Commonwealth Secretariat [ISBN No: 978-1-84929-020-3] | This report provides a comprehensive review of PPP policies worldwide, including guidance to practitioners about key aspects of designing and implementing PPP policy and projects. Chapter 4 provides guidelines for public-sector appraisal of PPP projects |

| | | |
|---|---|---|
| 4 | Economist Intelligence Unit (2010) *Evaluating the Environment for Public-Private Partnerships in Latin America and the Caribbean: The 2010 Infrascope. A guide to the index and methodology* Economist Intelligence Unit Limited<br>Spanish Version: Economist Intelligence Unit (2010) *Evaluando el entorno para las asociaciones público-privadas en América Latina y el Caribe Infrascope 2010: Guía del índice y metodología* | This annual publication sets out an index for assessing countries' readiness to carry out sustainable PPPs, and uses the index to evaluate the PPP environment in 19 countries in the region |
| 5 | Castalia (2010) Indonesia's PPP Program: Recommendations for Success in 2010-14 and Beyond Report to the World Bank Institute | Examines the experience of Indonesia's PPP program and offers recommendations to strengthen the program. The report also provides case studies of PPP programs in the Netherlands, South Africa, the Philippines, and Colombia |
| 6 | Irwin and Mokdad (2010) *Managing Contingent Liabilities in Public-Private Partnerships: Practice in Australia, Chile, and South Africa* World Bank / PPIAF | Describes the approach in the State of Victoria, Australia, Chile, and South Africa, to approvals analysis, and reporting of contingent liabilities (and other fiscal obligations) under PPP projects, and draws lessons for other countries |

**Table 2.1: Examples of PPP Framework Documents**

| Jurisdiction | Policy Document | Laws and Regulations | Guidance Material |
|---|---|---|---|
| Australia | *National PPP Policy Framework* (Infrastructure Australia, December 2008) sets out the policy objectives, scope, the assessment of projects as PPPs, and the principles guiding the application of PPPs | None | *A National PPP Guidelines Overview* (Infrastructure Australia, October 2008) provides an overview of the PPP process and key features for designing and implementing PPPs in Australia<br>The National PPP Detailed Guidance Material (Infrastructure Australia, 2008) in six volumes provides more detailed guidance—for example, including a practitioner's guide, commercial principles, and guidance on specific technical issues *(Volume 1: Procurement Options Analysis; Volume 2: Practitioners' Guide; Volume 3: Commercial Principles for Social Infrastructure; Volume 4: Public Sector Comparator Guidance; Volume 5: Discount Rate Methodology Guidance)* |

| Jurisdiction | Policy Document | Laws and Regulations | Guidance Material |
|---|---|---|---|
| Brazil | None | The federal-level legal framework for PPPs in Brazil is different for Concessions ("self-financing" projects, which require no government subsidy support), and PPPs:<br>• *Law 8987* (1995) is the Federal Concessions Law. It establishes which government bodies can grant concessions, and defines concession types. It also sets out criteria for selecting bidders during tender, the required content of concession contracts, rights and responsibilities of the contracting government agency, the concessionaire and users, the tariff policy, and the acceptable reasons for step in and contract termination. Law 9648 (1998) made some updates to this law<br>• *Law 11079* (2004) is the Federal PPP Law. It defines PPPs in the Brazilian context, establishes the scope of the PPP program, defines the contents of PPP contracts, sets rules for providing guarantees, setting up the SPV, tendering the project, and defines the rights and responsibilities of the contracting authority | |
| State of São Paulo[32] | None | *State Law 11688* (2004) sets out the rules and the institutional framework for the State's PPP Program<br>*State Decree No. 57.289* (2011) defines the process for dealing with unsolicited proposals<br>*State Decree No. 48867* (2004) defines the roles and composition of the PPP Management Council, the São Paulo Partnerships Corporation, and the PPP Unit (within the Planning Secretary) | |
| Chile | None | *Law 20.410* (2010) **is the current Concessions Law**. It updated the previous legal instrument for concessions—Decree 900 (1996)—which had modified the original legal instrument for PPPs in Chile: the Ministry of Public Work's Regulation 164 (1991). The law sets out the institutional framework for PPPs, tender rules, concessionaire's rights and obligations, inspection and oversight requirements, and procedures for resolving conflicts | |
| Colombia | | *Law 1508* (2011) is the National PPP Law.It sets out the scope of the PPP program in the country, and the principles that should guide it, and establishes the procedures and institutional framework for PPPs. It sets out specific approaches on PPP procurement, PPP contract design, and on the budgetary approach for PPPs. The following laws also contribute to the legal framework for PPP:<br>• *Law 80* (1993): establishes norms and principles for government contracting. It also sets norms that regulate the legal relationship between the public and private partners<br>• *Law 1150* (2007): modifies some parts of Law 80. Specifically, it incorporates certain elements that make the tendering processes more efficient and transparent<br>• *Presidential Decree 4165* (2011), in article 4, establishes the National Infrastructure Agency (ANI Agencia Nacional de Infraestructura), which is in charge of identifying, assessing the viability, and proposing concessions and other forms of PPPs in transport and other related services, and of developing and implementing the resulting PPP projects | The Ministry of Finance has published a manual on processes and procedures for the implementation of PPP projects, the *Manual de Procesos y Procedimientos para la ejecución de Asociación Público Asociaciones Público-Privadas* (2010). It is a guidebook for implementing agencies involved in identifying, selecting, developing, tendering, adjudicating, and monitoring PPP projects (infrastructure and services) |

| Jurisdiction | Policy Document | Laws and Regulations | Guidance Material |
|---|---|---|---|
| France | | *Law 2004-559* on Partnership Contracts sets out the legal and institutional framework for PPPs in France. *Law 2008-735* incorporates adjustments to Ordinance 2004-559, as well as the codes for subnational governments, urbanisms, general tax, monetary policy and finance, to improve the PPP framework in France.<br>In addition, the Parliament has passed sector-specific laws to enable PPPs in the justice and penitentiary systems (Law 2002-1094, and Law 2002-1138), and the Public hospital System (Law 2003-850) | A detailed Methodological Guidebook for PPPs *(Les Contrats de Partenariat: Guide Methodologique)* (Ministry of Economics, Finance, and Industry, March 2011) sets out the rationale for PPP; the process for developing and implementing a PPP; and provides detailed guidance for each step |
| India | *National Public Private Partnership Policy-Draft* (Department of Economic Affairs, Ministry of Finance, 2011) sets out the policy objectives, principles of implementing PPPs, governance and institutional frameworks, and processes for identifying, procuring, and managing PPPs<br><br>Individual states in India—such as *Assam, Goa, Madhya Pradesh, Orissa,* and *Karnataka*—have passed their own PPP policies for PPPs within their jurisdiction. *Gujarat* and *Rajasthan* has also developed viability gap schemes for infrastructure which have been set out in policy documents | **Andhra Pradesh, Bihar, Gujarat**, and **Punjab** have enacted PPP laws and regulations, including rules for the PPP process and institutional responsibilities | The Ministry of Finance has published a range of guidance material, all available on its PPP website *(http://www.pppinindia.com/guidelines-forms.php)*. This includes guidelines for developing, appraising, and approving PPP projects; model documents; and guidelines on the various financing support mechanisms available for PPP in India<br>An online PPP Toolkit *(http://toolkit.pppinindia.com)* also provides details on the PPP process for highways, water and sanitation, ports, solid waste management, and urban transport systems |
| Mauritius | *Public Private Partnership Policy Statement* (Ministry of Economic Development, Financial Services, and Corporate Affairs, 2003) covers how PPPs fit into the larger economic framework of the country, defines a PPP, the objectives of the PPP policy, the sectors in which PPPs should be applied, and key considerations for assessing PPPs | *The PPP Act of 2004* (Gazette of Mauritius No 113, Act No. 37 of 2004) establishes the PPP Unit, defines the responsibilities of implementing agencies, and defines the key elements of PPP-related agreements and studies | *PPP Guidance Manual* (Ministry of Finance and Economic Development, 2006) provides an overview of PPPs and their relevance in Mauritius, and also guidance through the PPP design and implementation process |
| Mexico | | **Government of Mexico (2012) *PPP Law (Ley de Asociaciones Publico Privadas)*** sets out the principles, scope, institutional framework, contracting mechanisms, required studies, approval procedures, PPP registry, fiscal management, and other matters that make up the Federal PPP Policy in Mexico | |
| Peru | None | *Legislative Decree No. 1012* (2008) establishes the principles, processes, and role of the Public Sector in the evaluation, implementation, and operation of public infrastructure and public service involving private sector participation | |

| Jurisdiction | Policy Document | Laws and Regulations | Guidance Material |
|---|---|---|---|
| Puerto Rico | | *PPP Act No. 29* (2009) sets out the framework for PPPs in Puerto Rico and provides the enabling legislation<br>*Regulation for the Procurement, Evaluation, Selection, Negotiation, and Award of PPP Contracts*, issued by the PPP Authority in Puerto Rico, provides rules for the PPP procurement process | |
| Philippines | None | **The BOT Law** *(Republic Act 7718, 1993)* enables the use of PPPs to develop infrastructure in the Philippines. The law establishes rules concerning the bidding process, financing, government support, and regulatory authorities<br>*Executive Order No. 8* (President of the Philippines, 2010) under President Aquino III modifies the BOT law, reorganizing the BOT Office of the National Economic Development Authority (NEDA) into a PPP Center, and outlining its duties and responsibilities | Guidance is under development by the new PPP Center as of 2011 |
| South Africa | None | **The Public Finance Management Act** *(No.1, 1999)* is the enabling legislation for PPPs<br>In accordance with this Act, the National Treasury issued **Treasury Regulation** 16 *(Gazette #25915, 2004)* to the Act, "Public private partnerships", which establishes the rules for the nation's PPP program. | A detailed *PPP Manual* (National Treasury PPP Unit, 2004) describes how the treasury regulations should be interpreted, and provides detailed guidance at every step in the PPP process, each in a separate module. Each module of the manual is issued as a Practice Note of the National Treasury, and can be updated separately |
| Spain | | The **Law for Public Sector Contracts** *(Law 30/2007)* provides the enabling legislations for all public sector contracts, including PPP contracts. **Royal Decree 817/2009** updates Law 30/2007 by defining the criteria for assessing economic and financial solvency of firms, registering and classifying firms, setting up *mesas de contratación*[33], setting up the *mesas de diálogo competitivo*[34], describes the steps of and responsibilities throughout the tender process.<br>In addition, the Spanish Congress has passed Law 31/2007 which sets out the rules for public procurement in the water, energy, transport, and postal services sectors.<br>The *Comunidades Autónomas* (sub-national governments) may have their own PPP legislation[35]. | |
| Tanzania | *National Public Private Partnership Policy* (Prime Minister's Office, 2009) covers the economic and social reasons to pursue PPPs, the vision, mission, goals, and objectives of the PPP policy, issues the policy is aimed to address, and an implementation framework | The *PPP Act* (Gazette of the United Republic of Tanzania No. 13 Vol. 91, 2010) sets out the responsibilities of the private and public sectors, the functions and powers of the PPP Unit, and the approval process for PPPs | None |

32. Note that "PPPs" only covers PPP that require government subsidies. "Self-financing" concessions are implmented under a different framework, as is also the case at the federal level

33. Contracting Boards. These groups are formed for each contract, and are in charge of evaluating studies of the project and approving the project and the contract.

34. These are boards that are set up for competitive dialogue processes.

35. Even though Spain is a unitary country, the Constitution defines certain competencies that can be transferred to the Comunidades Autónomas. However, each Comunidad Autónoma decides which competencies to take responsibility over and which to leave in the hands of the central state. According to article 148 of the Spanish Constitution, most competencies related to the development of public infrastructure, and public services provision can be transferred to the Comunidades Autónomas.

# 2.1. PPP Policy

The first step in establishing a PPP framework is often for the government to articulate its PPP policy. "PPP policy" is difficult to define, and is used in different ways in different countries. Based on a definition of policy as a "course or principles of action"[36], this Reference Guide uses PPP Policy to mean the government's statement of intent to use PPPs as a course of action to deliver public services, and the guiding principles for that course of action. A PPP policy would typically include:

- **PPP program objectives**—why the government is pursuing a PPP program
- **PPP program scope**—what types of projects will be pursued under the PPP policy
- **Implementing principles**—how PPP projects will be implemented, to ensure the PPP program meets it objectives.

The following sections provide examples of how different countries define their PPP program objectives, scope, and implementing principles.

Many governments issue a PPP policy statement or document, to communicate to the public and to potential investors the government's intention to use PPP, and how PPPs will be implemented. Table 2.1 provides some example PPP policy documents. Other countries incorporate these elements of PPP policy within PPP laws and regulations, or guidance material.

## 2.1.1 PPP Program Objectives

Governments pursue PPP programs for different reasons. Some countries begin using PPPs in a particular sector, simply as a way to meet investment needs given fiscal constraints. For example, PPPs were first used in South Africa in the roads sector, with the specific objective of building more highways. In the Philippines, many of the first PPPs were in the power sector, where the state-owned power company contracted with Independent Power Producers (IPPs) to solve a power crisis. In both cases, the use of PPPs subsequently extended into other sectors.

Many governments define broader PPP program objectives when formulating and documenting PPP policies. The choice and relative priority of these objectives depends on the government's other policies and priorities. They can include:

- Enabling more investment in infrastructure, by accessing private finance
- Achieving value for money in the provision of infrastructure and public services
- Improving accountability in the provision of infrastructure and public services
- Harnessing private sector innovation and efficiency
- Stimulating growth and development in the country.

36. Oxford English Dictionary.

Table 2.1.1 provides examples of clear statements of PPP program objectives drawn from the relevant country's PPP policy statement or law.

**Table 2.1.1: Example PPP Program Objectives**

| Country | Reference | PPP Objectives |
|---|---|---|
| Australia | National PPP Policy Framework (2008) [#1, page 3] | Describes the aim of PPPs as being "to deliver improved services and better value for money, primarily through appropriate risk transfer, encouraging innovation, greater asset utilization and an integrated whole-of-life management, underpinned by private financing" |
| India | Draft National PPP Policy (2011) [#6, page 8] | The draft National PPP Policy sets several objectives for PPPs:<br>• Harnessing private sector efficiencies in asset creation, maintenance and service delivery<br>• Providing focus on life cycle approach for development of a project, involving asset creation and maintenance over its life cycle<br>• Creating opportunities to bring in innovation and technological improvements<br>• Enabling affordable and improved services to the users in a responsible and sustainable manner |
| Indonesia | Regulation of Government Cooperation with Business Entity in the Supply of Infrastructure (2005) [#8, Chapter II Article 3] | The purpose of "cooperation of government and the private sector" (through PPPs) is set out as follows:<br>• To fulfill sustainable funding requirements in the supply of infrastructure through mobilization of private sector funds<br>• To improve the quantity, quality and efficiency of services through healthy competition<br>• To improve the quality of management and maintenance in the supply of infrastructure<br>• To encourage the use of the principle where users pay for services received; or in certain cases the paying ability of the users shall be taken into consideration. |
| São Paulo (Brazil) | Law 11688 (2004) [#3, Article 1] | States that the objective of the PPP program is to "promote, coordinate, regulate, and audit the activities of the private sector agents who, as collaborators, participate in the implementation of public policies aimed at the development of the state and the collective wellbeing" |
| México | PPP Law (Ley de Asociaciones Publico Privadas, 2012) [#11, Article 1] | States that the objective of the PPP program is to increase social wellbeing, and investment levels in the country |

## 2.1.2 PPP Program Scope

Many governments bound the scope of their PPP program to particular types of projects or contracts. The aim can be to focus on those projects that are most likely to successfully achieve the government's objectives and provide value for money as PPPs. Where the PPP framework includes particular processes and institutional responsibilities, it may also be necessary to define under what circumstances these will apply. Governments may define the PPP program scope by a combination of the following:

- **PPP contract types**—there is no consistent, international definition of "PPP", which can be used to describe a wide range of contract types. **Module 1, Section 1.2: How PPPs Are Used** describes this range, which can stretch from management contracts to Design-Build-Operate-Finance-Maintain contracts for new assets. Some countries define the types of contract that are included under the PPP policy. The aim can be to prioritize contract types that are most consistent with the government's objectives. It can also be important to distinguish when the requirements and processes of the PPP framework will apply. For example, **India's draft National PPP Policy** (2011) describes the types of contracts that are considered as PPPs, types of contract that will not be used (those involving private ownership of assets), and those that are not covered by the PPP policy (Engineering-Procurement-Construction (EPC) contracts, and divestiture of assets). **Brazil's PPP Law** (Law 11079,2004) and **Chile's Concessions Law** (Law 20410,2010) both define limits on the contract duration: in Brazil, a minimum of five years, and in Chile, a maximum of 50 years

- **Sectors**—the PPP program may be limited to the sectors most in need of investment or improvements in service performance, or those in which PPPs are expected to be most successful. For example, **Singapore's PPP policy** (2004) is limited to those sectors "in which other similar countries have had proven success with PPP", including sports facilities, incineration plans, water and sewage treatment works, major IT infrastructure, education facilities, hospitals and polyclinics, expressways, and government office buildings

- **Project size**—many governments define a minimum size for PPP projects implemented under the PPP framework. Smaller projects may not make sense because of the relatively high transaction costs of implementing a PPP. In some cases, smaller projects can be implemented, but are not subject to the appraisal and approval requirements defined in the PPP framework.

In other cases, a size limit may mean PPP-type contracts cannot be used for smaller projects. For example, **Singapore's PPP policy** (2004) states that initially, PPPS will be pursued only for with an estimated capital value of over US$50 million. **Brazil's PPP law** (Law 11079,2004) sets a minimum size of 20 million reais (US$11.7 million) for individual projects.

Table 2.1.2 provides more detail on how various countries have defined the scope of their PPP programs.

## Table 2.1.2: Example Definitions of PPP Policy

| Country | Reference | PPP Policy Scope |
|---|---|---|
| Australia | National PPP Guidelines-PPP Policy Framework (2008) [#1, Section 3.1.3, page 6] | **Project size**—value for money considerations mean PPPs will likely only be applicable for projects over US$50 million |
| Brazil | National PPP Law (Law11079, 2004) [#2, Article 2, paragraph 4] | **Contract Types**—only two types of contracts will be considered PPPs in Brazil: (i) sponsored concession—returns for the private party come from user fees and government transfers—, and (ii) administrative concessions—all of the returns to the private party come from government transfers. Concessions not requiring government transferred are not considered PPPs in Brazil. The law also states that the concession must be at least five years long to be considered a PPP.<br>**Project Size**—PPPs will only be used for project over 20 million reais (US$11.7 million) |
| Chile | Concessions Law (Law 20.410, 2010)[#4] | **Contract types**—the law specifies a maximum duration for concession contracts of 50 years<br>**Sector**—the law does not specify the sectors. However, it states that PPPs are to exploit public works and services, the use of "national goods" to develop necessary services |
| Colombia | National PPP Law (Law 1508, 2011) [#5, articles 3 and 6] | **Contract types**—PPP contracts must always make the private investor responsible for operations and maintenance, and must be for less than 30 years. (If the project is longer, it will require approval from the national Council on Economic and Social Policy)<br>**Project size**—Total investment in the project must be above 6000 smmlv[37] |
| India | Draft National PPP Policy (2011) [#6, page 6] | **Contract types**—the policy lists preferred PPP contract types, as well as exclusions. The policy states that the government does not intend to use contracts involving private ownership of assets. It also clarifies that Engineering-Procurement-Construction (EPC) contracts, and divestiture of assets, are not covered by the PPP policy |
| Mauritius | Public Private Partnership Policy Statement (2003) [#10, Section 5, page 4] | **Sectors**—in the early stage of the PPP program, the government plans to focus on certain key areas—transport, public utilities, solid and liquid waste management, health, education and vocational training, and ICT |
| Mexico | PPP Law (*Ley de Asociaciones Publico Privadas,* 2012) [#11] | **Contract types**—defines PPPs as long term contractual relationships between public and private entities, to provide services to the public sector or the general public, and where the infrastructure is provided to increase social wellbeing and investment levels in the country. Contracts must not exceed 40 years in duration (including extensions)—contracts that are longer than 40 years must be approved by law |
| Puerto Rico | PPP Act (2009) [#13, Section 3] | **Sector**—defines ten eligible sectors: sanitary landfill, reservoirs and dams, electricity generation plants, transport systems, educational, health, security, correctional and rehabilitation facilities, affordable housing, sports, recreations, tourist, and cultural attractions, communication networks, high/tech, informatics and automation systems, and any other sector that has been identified as a priority through legislation |

| Country | Reference | PPP Policy Scope |
|---|---|---|
| Singapore | Public-Private Partnership Handbook (2004) [#14, Section 1.4.2, page 8] | **Sectors**—limited to those in which there are successful PPP examples in other countries—including sports facilities, incineration plans, water and sewage treatment works, major IT infrastructure, education facilities, hospitals and polyclinics, expressways, and government office buildings **Project size**—PPPs will be used only for projects over US$50 million |

## 2.1.3 Implementing Principles

PPP policies often set out implementing principles—the guiding rules, or code of conduct under which PPP projects will be implemented. These principles set out the standards against which those responsible for implementing PPPs should be held accountable. Principles are often supported by regulations and processes, detailing how the principles will be put into practice. For example, Box 2.1.1 lists the implementing principles established in Perú's national PPP law.

**Box 2.1.1: PPP Implementing Principles in Perú**

Perú´s PPP policy is set out through legislative decree 1012. In article 5, this defines the following guiding principles for the PPP Policy:

- **Value for Money**: a public service must be provided by the private actor that can offer better quality for a given cost or lower costs for a given quality outputs. This is how the policy seeks to maximize user satisfaction and optimize the use of public resources
- **Transparency**: All quantitative and qualitative information used to make decision during the evaluation, development, implementation and monitoring stages, must be made public in accordance with Article 3 of the Transparency and Public Information Access Law
- **Competition**: Competition must be sought in order to ensure efficiency and lower costs in the provision of public infrastructure and services. The government must also avoid any anti-competitive o collusion behavior

37. Salario Mínimo Mensual Legal Vigente (Minimum Legal MonthlyWage).

- **Adequate Risk Allocation**: There must be an adequate risk allocation between the public and private parties. This means that the risks must be assigned to the party that has the greatest capacity to manage the risks at a lower cost, considering both the public interest and the project´s characteristics
- **Budgetary Responsibility**: this is defined as the Government capacity to assume the firm and contingent financial commitments related to the implementation of PPP contracts without compromising the sustainability of public finances or the regular provision of the public service.

Source: President of Peru (2008) *Legislative Decree No. 1012* Presidency of the Republic of Peru

For other examples of strong guiding principles, see:

- The **State Government of Karnataka Infrastructure Policy** (2007) [#6, page 135], which clearly sets out and explains its "Touchstone Principles"
- **Australia's National PPP Policy Framework** (2008) [#1, pages 10-11], which sets out seven principles: value for money, public interest, risk allocation, output-orientation, transparency, accountability, and "engaging the market"
- **Brazil's Federal PPP Law** (Law 11079, 2004)[#2, Article 4] sets out seven principles for the use of PPPs—efficiency, respect for the interests of users and the private actors involved, non-transferability of regulatory, jurisdictional and law enforcement responsibilities, transparency, objective risk allocation, and financial sustainability
- In the **PPP Law** (Law 11688, 2004) **of the State of São Paulo, Brazil** [#3, Article 1] sets out eight principles that should guide PPP design and implementation. These include: efficiency, respect for the interests of the end users, universal access to essential goods and services, transparency, fiscal, social, and environmental responsibility
- **Indonesia's Presidential Regulation No. 67** (2005) [#8, Article 6], which presents PPP principles promoting transparency, fair consideration, and competition in the PPP program, as well as "win-win" structures for the public and private parties.
- **Colombia's National PPP Law** (Law 1508, 2011) [#5, Articles 4 and 5] sets out the key principles of the PPP policy in the country: efficiency, necessity, and efficient risk allocation. The law also states that all payments to the private investor must be conditional on the availability of the infrastructure to contractually-set levels.

A strong statement of principles can also be used to mark a change in previous norms for major infrastructure projects. For example, Jamaica has in the past procured several major projects through direct negotiation. Jamaica's **Privatization Policy** (2011) [#9, General Principles, page 5] calls for a more transparent and fair process by conducting transactions "at arms-length, creating equal opportunity for all potential investors".

| Key References: PPP Policy Examples | | |
|---|---|---|
| | **Reference** | **Description** |
| 1 | Government of Australia (2008) *National PPP Guide lines-PPP Policy Framework*, Infrastructure Australia | Sets out the policy objectives, scope, the assessment of projects as PPPs, and the principles guiding the application of PPPs |
| 2 | National Congress of Brazil (2004) *Law 11079 ("Federal PPP Law")* | Defines PPP, and sets out the PPP process, including requirements for tendering process, contract design. It also establishes the institutional framework for the PPP Program |
| 3 | Legislative Assembly of the State of São Paulo, Brazil (May 2004) *Law 11688 ("PPP Law")* | Sets out the objectives of the PPP Program, creates the PPP Management Council, the São Paulo Partnerships Corporation, and the PPP Unit within the Planning Secretariat. It also establishes the private partner's responsibilities, sand establishes the rule for PPP contracts |
| 4 | National Congress of Chile (2010) *Law 20410 ("Concessions Law")* | This law amends the previous Decree which acted as the PPP Law in Chile. It creates the Concessions Council, defines all the preparatory activities that must be carried out by the contracting agency, establishes the procurement process, sets rights and responsibilities, and establishes processes for dealing with change |
| 5 | Congress of Colombia (2011) *Law1508 ("PPP Law")* | Sets out the scope, principles, and processes for the PPP program in Colombia, as well as institutional responsibilities for developing projects |
| 6 | Government of India (2011) *National Public Private Partnership Policy-Draft* Department of Economic Affairs, Ministry of Finance | Sets out the policy objectives, principles of implementing PPPs, as well as guidelines for how PPPs should be developed and implemented |
| 7 | Government of India (undated) *Promoting Infrastructure Development Through PPPs: A Compendium of State Initiatives* Department of Economic Affairs, Ministry of Finance | Presents PPP policies, laws, and regulations from 12 states in India |
| 8 | Government of Indonesia (2005) *Presidential Regulation No. 67 concerning Government Cooperation with Business Entities in the Supply of Infrastructure* President's Office of Indonesia, as amended by Government of Indonesia (2011) *Presidential Regulation No. 56* | Sets out the purpose, scope, and principles of the PPP program in Indonesia, as well as defining the PPP process and responsibilities |
| 9 | Government of Jamaica (2011) *Government of Jamaica Policy Framework and Procedures Manual for the Privatization of Government Assets—Draft* Summarized on the following website: http://www.dbankjm.com/privatisation-of-goj-assets | Provides the overall policy framework for privatization and PPPs, including defining objectives and implementing principles, as well as an overview of the PPP process |
| 10 | Government of Mauritius (2003) *Public Private Partnership Policy Statement* Ministry of Economic Development, Financial Services, and Corporate Affairs | Describes how PPPs fit into the larger economic framework of the country, defines a PPP, the objectives of the PPP policy, the sectors in which PPPs should be applied, and key considerations for assessing PPPs |

| Key References: PPP Policy Examples | | |
|---|---|---|
| Reference | | Description |
| 11 | General Congressof the United States of Mexico (2012) *Ley de Asociaciones Publico Privadas (PPP Law)* | Sets out the scope, principles, and processes for the PPP program in Mexico |
| 12 | President of Peru (2008) *Legislative Decree No. 1012* Presidency of the Republic of Peru | This decree is the national law and it sets out the PPP policy in the country. Defines and classifies PPPs, sets out the principles that should guide the implementation of the policy, define the institutional framework, and sets out the financial rules for PPPs in Perú |
| 13 | Legislature of Puerto Rico (2009) *PPP Act No. 29* Commonwealth of Puerto Rico | Sets out the purpose, scope, principles, and processes of the PPP program in Puerto Rico |
| 14 | Government of Singapore (2004) *Public-Private Partnership Handbook* Ministry of Finance | Provides an introduction to PPPs, their structures, and the process for procuring and managing PPPs in Singapore. It also defines the scope of Singapore's PPP program |

## 2.2. PPP Processes and Institutional Responsibilities

Governments need skill, capacity, and coordination to implement PPPs successfully. The private party will design, finance, build and maintain the infrastructure, and provide services. Government remains responsible for ensuring the service is provided to the expected quality, in a way that achieves good value for money. The government must select a competent partner, and set and enforce the parameters within which that partner operates.

To this end, many governments define PPP processes and institutional responsibilities for PPPs—that is, the steps that must be followed when developing and implementing a PPP project, and the entities responsible for each step. This section provides examples and resources for practitioners on:

- **Establishing the PPP process**—there are several steps that a government must usually take to implement a PPP project successfully. Defining a standard PPP process, with approvals required at key points, helps ensure these necessary steps are taken consistently and efficiently. **Section 2.1** describes a typical PPP process, and gives examples from different countries' PPP programs
- **Defining institutional responsibilities for implementing PPPs**—the entities responsible for implementing PPPs, for approving a proposed PPP, and for coordinating and controlling the PPP process vary between countries, depending on the existing institutional architecture and experience. **Section 2.2** describes the skills required for each of these functions, and entities that are typically involved
- **Establishing a PPP unit**—some countries establish a "PPP Unit" as a focal point for PPPs. These units are often established within or linked to a central oversight agency, or sometimes within line agencies in key PPP sectors. **Section 2.3** briefly describes the various roles played by these units, with examples from different countries.

This section focuses on the process and responsibilities within the executive branch of government for implementing PPPs. **Section 3: PPP Program Oversight** provides further guidance on how other entities can input into the PPP process, and hold those responsible for developing PPPs accountable for their decisions and actions.

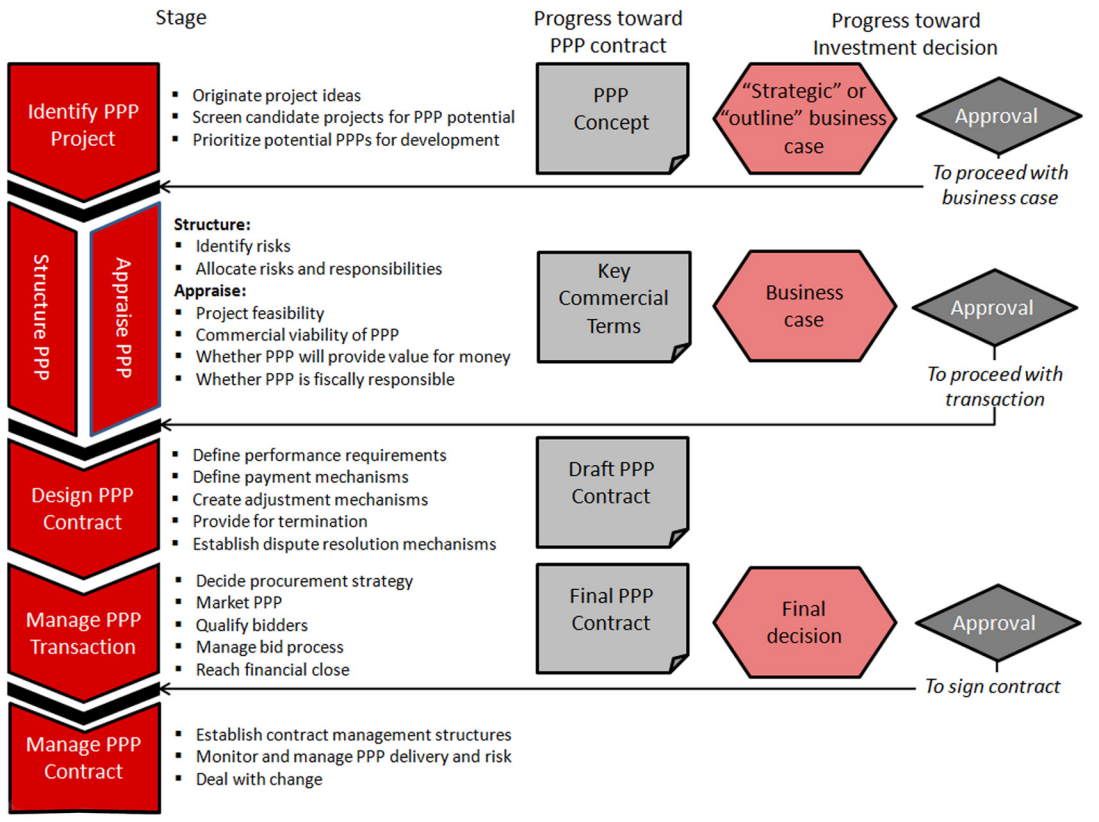
## 2.2.1 Establishing the PPP Process

Many governments set out a process that must be followed to develop and implement every PPP project. Standardizing the PPP process helps ensure that all PPPs are developed in a way that is consistent with the government's objectives. It also helps achieve coordination between the various entities involved.

Figure 2.2.1 shows an example of a well-defined PPP process. The process is broken down into several stages, in which the PPP is iteratively developed and appraised. At each key stage, approval is required to proceed[38]. There are two reasons to use an iterative approach to developing a PPP project. First, it enables timely involvement of oversight agencies in approving projects, as described further in Section 2.2.2.2. Second, it avoids wasting resources developing weak projects. Developing a PPP project is costly—early checks that the project is promising can help ensure development budgets are well-spent.

This section briefly describes each stage of the PPP process. Section 2.2.2 describes who is typically responsible for implementing, assessing, and approving the PPP.

**Figure 2.2.1: Typical PPP Process**




38. This diagram provides a generic example—the details of the process and approvals may vary by country. For example, the timing and extent of analysis required for approvals may differ; and detailed steps required at each stage may vary. Module 3 describes each stage in more detail, with options, guidance, and tools for practitioners.

As shown in Figure 2.2.1, typical stages in developing and implementing a PPP project can include:

- **Identifying the candidate project**—the first step is to identify projects with PPP potential. Where a government has already developed sector or infrastructure plans, these could provide the starting point. Often this stage involves developing the proposed PPP to a "concept" stage, and initial screening analysis to assess its potential to create value for money as a PPP. Approval may be required to continue to prepare a more complete "business case" for the project, as described further in Section 2.2.2.1 below

- **Structuring and appraising the project**—once a promising candidate project has been identified and initially approved, the next step is typically to study its feasibility from technical, economic, financial, legal, and environmental perspectives. On the basis of that information, the key commercial terms can be developed—including the proposed contract type, risk allocation, and payment mechanisms. A "business case" is often also developed, to demonstrate why the PPP is a good investment decision. Box 2.2.1 describes typical appraisal criteria and how these are assessed—these can include technical and economic viability, value for money as a PPP, and affordability, as well as likely marketability as a PPP. Approval is typically needed at this stage, based on the analysis in the business case, before going on to prepare for and implement the PPP transaction

- **Designing the PPP contract**—the final step to prepare the PPP for procurement is to draft the PPP contract and other agreements. This involves developing the commercial principles into contractual terms, as well as setting out the provisions for change and how the contract will be managed, such as dispute resolution mechanisms. Often the design of the draft contract is completed in the early stages of the procurement process, to allow for consultation with potential bidders

- **Implementing the PPP transaction**—in the transaction stage, the government selects the private party that will implement the PPP. This usually involves preparing for and conducting a competitive procurement process. Bidders submit information detailing their qualifications and detailed technical and financial proposals, which are evaluated according to defined criteria—often in a multi-stage process—to select a preferred bidder. The transaction stage is complete when the project reaches financial close

- **Managing the PPP contract**—once the PPP has reached financial close, the government must manage the PPP contract over its lifetime. This involves monitoring and enforcing the PPP contract requirements, and managing the relationship between the public and private partners.

An alternative to the government carrying out all these steps is to allow private companies to identify and propose PPP projects. Some governments have introduced specific requirements and processes to ensure that these unsolicited proposals are subject to the same assessment, and developed following the same principles, as government-originated PPPs. In **Module 3** of this Reference Guide, **Section 3.6: Dealing with Unsolicited Proposals** provides details

**Box 2.2.1: PPP Project Appraisal Criteria**

In deciding whether to pursue a project as a PPP, governments need to assess whether the PPP is a good use of resources. This typically involves assessing the project and proposed PPP against three key criteria:

- **Feasibility and economic viability of the project**—whether the underlying project makes sense, irrespective of implementation as a PPP or through traditional public sector procurement. This usually involves feasibility studies to check the project is possible, demonstrating it is in line with sector and overall policy priorities and plans, and economic appraisal to check the project is cost-benefit justified, and the least-cost approach to delivering the benefits
- **Value for money of the PPP**—whether developing the project as the proposed PPP can be expected to best achieve value for money, compared to the other options. This can include comparing against the alternative of public procurement (where that would be an option). It can also include comparing against other possible PPP structures, to check that the proposed structure provides the best value (for example that risks have been allocated optimally)
- **Affordability**—whether the project's overall revenue requirements are within the capacity of users, the public authority, or both, to pay for the infrastructure service. This involves checking the fiscal cost of the project—both in terms of regular payments, and fiscal risk—and establishing whether this can be accommodated within budget and other fiscal constraints.

When identifying and developing potential PPP projects, governments also need to consider their **commercial viability**—that is, whether the project is likely to be able to attract good-quality sponsors and lenders by providing robust and reasonable financial returns. This is confirmed through the tender process.

These criteria (with some variations) are described in more detail in "Public-Sector Investment Decision" chapter in **Yescombe's book on PPPs** [#1, Chapter 5], "Selecting PPP projects" in **Farquharson et al** [#2, Chapter 4], and "Project identification" chapter in the **EPEC "Guide to Guidance"** [#3, Chapter 1].

**Module 3** of this Reference Guide describes the PPP process in detail, setting out options and providing information and guidance for practitioners on each stage. The following provide examples of how the PPP process is defined in a range of countries:

- In **Chile, the Concessions law** (2010) presents a thorough description of the PPP process including the preliminary proposal by the contracting agency, the tender process [#16, Chapters II and III, Articles 2-14]

- In **Egypt**, the Ministry of Finance has published a step-by-step **guide to developing PPPs** (undated—accessed 2011) [#17]. The guide directs the relevant Ministries through the PPP process, from identifying a project through developing a business case and the procurement process

- An **ADB publication on PPP projects in Korea** (2011) [#18, pages 61-72] includes a detailed description of the PPP implementation process for different types of PPP, including unsolicited projects
- The **PPP Guidelines of the Government of Malaysia** (2005) [#19, page 11] provides an overview of its PPP process
- In **Mexico**, the **PPP Law** (2012) describes all the studies that must be carried out to assess the viability of a PPP project; sets out the PPP approval process; sets out the activities and institutional responsibilities in running a PPP tender process; and describes the bid evaluation process and the selection of the winning bid [#35, articles 14, 21-25, 38-51, and 52-59]
- **Peru's Legislative Decree No. 1012** (2008) lays out the process for carrying out a PPP, establishes the criteria for selecting projects and the PPP modality, and defines the steps and responsibilities in project design and approval [#20, Title III, Articles 7-9]
- The **Implementing Rules and Regulations of the Philippines BOT Law** (1993) set the PPP process in the Philippines [#21, pages 11-51 and Annexes]
- In **Puerto Rico**, the **PPP Act** (2009) [#23, Sections 7-10], presents a detailed description of the PPP process including conducting initial desirability and convenience analysis, setting up a Partnership Committee to implement the tender process and the PPP contract, and selecting proponents and awarding partnerships
- The **South Africa PPP Manual** (2004) [#24, Introduction] has an introduction that provides a brief overview of the PPP process. The process is explained in detail in the manual, with a module dedicated to each step.

## 2.2.2 Institutional Responsibilities for PPPs

Most governments define institutional responsibilities for PPPs—that is, which entity will play what role at each step of the process. Institutional arrangements differ widely from place to place—depending on the particular needs of the PPP program and the existing institutional responsibilities and capacities—and there is no one right way of setting them up. There is no "right" institutional architecture for PPP—the allocation of functions varies between countries, depending on existing institutional mandates, capacities, and the priorities of the PPP program and framework.

However, it is useful to consider generic responsibilities that some entity needs to have in any well-organized PPP system, and then look at how these responsibilities are allocated in a range of actual PPP systems.

Generic government responsibilities for PPPs include:

- **Implementing Projects**—that is, driving forward the steps on the left hand side of the PPP process diagram in Figure 2.2.1, from identifying potential projects, appraising, structuring, drafting the contract, bidding it out, and finally managing the contract after it is signed. This is typically the job of an agency with responsibility for the sector in which the PPP falls. Often that agency will be assisted with input from other agencies with relevant skills and experience

- **Approving Projects**—that is, giving the go ahead for the project to proceed. As shown in Figure 2.2.1, approvals may be needed at several stages of project development. This is often a Cabinet-level responsibility, in recognition of the importance of many PPP projects, and their implications for multiple portfolios

- **Regulating and controlling the process**—that is, making sure that the correct processes are followed, that analysis of a proposed PPP is complete and shows it meets any required criteria, that all the agencies that needs to comment or give their go ahead do so, and that the body with approval authority gets all the information it needs to make a sound decision.

The following sections describe the skills, focus and mandate required to carry out each group of functions successfully, and provide examples of institutional responsibilities from PPP programs worldwide.

## 2.2.2.1 Implementing

Implementing a PPP requires a range of skills and expertise. Agencies responsible for implementing projects need a sound understanding of the needs of the particular sector, skill in economic and financial appraisal of projects and PPPs, expertise in structuring privately-financed infrastructure project contracts, expertise in procurement and contract management, and experience in dealing with the private sector. The main challenge in designating the implementing agency is to ensure that all these skills are available to implement PPP projects successfully.

Responsibility for doing the PPP deal and managing the PPP contract typically falls to the entity with responsibility for ensuring the relevant asset or service is provided. This entity is often termed, for PPP purposes, the contracting authority, since it will usually be the public party to the PPP contract. The PPP law or policy may define the types of government entity that can be contracting authorities, and specify that these authorities are responsible for PPP implementation. For example:

- In the **Philippines**, **the BOT Law** (1993) delegates responsibility for developing and implementing PPPs to eligible government agencies, units, or authorities. These include Government-Owned or Controlled Corporations (GOCCs), Government Financial Institutions (GFIs), State Universities and Colleges (SUCs), and Local Government Units. These agencies are required to create a Pre-qualification, Bids and Awards Committee (PBAC) that will oversee the PPP process for each PPP project [#21, Implementation Rules and Regulations]

- Under **Tanzania's PPP Law** (2010), the contracting authority can be any eligible party within government. The contracting authority is responsible for facilitating project development, including project identification, a feasibility study, environmental impact assessment, and design and implementation of the PPP contract [#25]

- In **Colombia**, the **Manual for PPP procedures** (2010) allows contracting authorities to be ministries or other sector-specific institutions, and local and regional institutions. The contracting authorities are in charge of conducting eligibility and value for money analyses, and submitting the results to the PPP Unit—UPAPP[39]. The implementing agencies also manage the procurement process. [#26, Chapter 4.2, page 34].

However, sector agencies may lack some of the skills needed to identify and develop PPP projects successfully. For example, particularly at the early stages of a PPP program, sector agencies may have little or no experience with engaging with the private sector on privately-financed projects. Sector agencies may also lack expertise in rigorous project analysis, or have inadequate focus on achieving value for money for the government as a whole. For this reason, other government entities are often also involved, to provide additional skills or perspectives. This can be achieved in different ways, including:

**Forming inter-departmental committees to oversee each PPP transaction**—often including representatives from the sector ministry as well as ministries of finance and planning, and legal representatives. **Involving specialist entities in different implementing roles**. This is the case in Perú, for example, where the procurement agency is responsible for implementing the PPP transaction, and sector regulatory agencies are responsible for monitoring the private parties' compliance with the PPP contract. **Zevallos Ugarte's book on lessons learned in concessions in Perú** [#15] provides further details on the institutional framework for implementing PPPs

**Involving dedicated PPP units**, as described in Section 2.3. These units are a repository of skill and experience in developing PPPs. They often support contracting authorities in implementing PPP projects. In a few cases the PPP unit may take over primary responsibility as implementing agency. For example, the PPP Law in **Chile** (2010) authorizes the Ministry of Works as the implementing agency for PPPs, through its dedicated concessions unit [#16, Article 1-3, 6-9, 15-21, 25, 27-30, 35-36, 39-41]. Section 2.3 provides several more examples of PPP units and the extent of their roles in implementing PPPs.

## Use of external advisors

Even governments with long PPP experience do not have in-house all the expertise and skill needed to develop PPP projects. All engage external specialist advisors for detailed, technical tasks such as conducting feasibility studies and drafting PPP contracts.

The extent and nature of external advisory support needed may change as the government and the country gains PPP experience. For example, in the Netherlands, initially external

39. Unidad de Proyectos de Asociación P'ublico-Privada.

advisors constituted about 75% of the personnel engaged on any given PPP. This is slowly changing in favor of internal staff as they become more familiar and better qualified to prepare and procure PPP deals. Moreover, the Dutch government initially used UK advisors, as they were more experienced with PPPs. Over time these were displaced by local Dutch advisors, who had demonstrated their skills in this area.[40]

### 2.2.2.2 Approving

Most governments have rules for approving capital investment projects—that is, defining who can give the go ahead for a project to be implemented. Because PPPs often do not require capital investment by the government, they may not automatically be subject to these approval rules. Many governments therefore define similar approval requirements for PPPs. Often, several decision points are created, allowing weak projects to be stopped before they consume too many resources, or develop a momentum of their own. This is illustrated in Figure 2.2.1. At a minimum, approval is typically needed to enter into a PPP transaction. Because the final cost of a project is not known until procurement is concluded, final approval may be needed before the contract is signed.

Jurisdictions vary as to which entitycan approve a PPP. A few countries require legislative approval of projects. More often, approval may come from Cabinet or a Cabinet-level committee, the finance ministry, or a combination. As described in **Irwin's paper on controlling spending commitments in PPPs** [#4, pages 113-114], approval power may depend on the size of the project, as is typically the case for other capital investments.

Table 2.2.1 provides examples of approval requirements set out in national PPP frameworks. For further, detailed descriptions of approval requirements for PPPs see **Castalia's report benchmarking Indonesia's PPP program** [#14, Annex A], which describes the PPP institutional frameworks in Indonesia, Colombia, South Africa, and the Netherlands.

**Table 2.2.1: Example PPP Approval Requirements**

| Country | Reference | Approval Requirements |
|---|---|---|
| State of Victoria, Australia | National PPP Guidelines-Partnership Victoria Requirements Version 2 (2010) [#27, page 5]. | A "gateway" approval of the PPP (by special committee) is required at four stages: project selection (to proceed to develop the business case); before issuing the requests for expressions of interest; before issuing project briefs and contract; and before the contract is executed |

40. As described in Castalia (2009) *Benchmarking Indonesia's PPP Program* Report to the World Bank, page 21.

| | | |
|---|---|---|
| Chile | Concessions Law (Law 20410, 2010) [#16, Article 7, 20, and 28] | Final approval of a PPP—through signing the decree that formalizes the concession—rests with the President and the Ministry of Finance together. Contracts cannot be bid out unless the Ministry of Finance has approved the bidding documents. The Ministry of Finance must also approve any changes to economic aspects of the bidding documents, as well as certain changes during implementation |
| Colombia | PPP implementation rules (2010) [#25, Section 3.2.3]<br>Also set out in the National PPP Law (Law 1508, 2011) [#32, article 26] | PPPs must be approved by:<br>• **CONFIS**—the National Fiscal Council, which leads the national fiscal policy and coordinates the budgetary system, approves the future appropriations (vigenciasfuturas) for PPP projects. CONFIS is made up of the Ministry of Finance, the Director of the Administrative Department of the National Planning Agency, the Chief Economic Advisors of the Presidency, the Vice-minister of Finance, and the directors of the National Treasury, Public Credit, and Tax and Customs Authority. Before reaching the CONFIS the project must have the approval of the sector ministry, and the National Planning Department<br>• **CONPES**—the National Council for Economic and Social Policy, which is the highest planning authority in Colombia and advises the government in all aspects related to the economic and social development of the country, certifies the strategic importance of the project. Such certification is required for the project to be eligible to receive future appropriations. In addition, this sets the limits on how many future appropriations can be approved by CONFIS in any given year. CONPES comprises the President, Vice President, the Cabinet, the director of the administrative department of the presidency, the director of the national planning department, and the director of Colciencias |
| Philippines | The Philippines BOT Law (1993) [#21, Rule 2, pages 16-19] | All national projects and projects over PHP 200 million (US$4.6 million) require approval from the Investment Coordination Committee under the National Economic and Development Authority (NEDA) Board. Build-Own-Operate projects require approval from both the NEDA Board and the President. The members of the NEDA Board are Cabinet members responsible for the major infrastructure, economic and finance departments |
| South Africa | Public Finance Management Act and Treasury Regulation 16 (2004) [#24, pages 8-10] | PPP approvals are made by the Treasury. Projects are submitted for approval at four points, after: (1) the feasibility study has been completed, (2) the bid documents have been prepared, (3) bids have been received and evaluated, and (4) negotiations have concluded and the PPP contract is in its final form |

### 2.2.2.3 Regulating and controlling the process

In most successful PPP programs, one entity is responsible for making sure that the right process is followed, that all the appropriate agencies in government are involved, and that the final decision-maker gets the information it needs. This responsibility is generally given to a central agency that already exercises a cross-government coordination and control function—typically a Ministry of Finance or Planning Agency. The "regulatory" function is often exercised through defined check-points or "gateways" in the course of PPP development.

### Role of the finance ministry

The finance ministry is often central to the controlling function for PPPs. In some governments, the finance ministry has approval power for PPPs, as described in Section 2.2.2.2. Even where

this is not the case, in successful PPP programs the finance ministry typically has a control role throughout the process. This helps ensure that the PPP program is focused on achieving value for money, and that fiscal risks are managed. The IMF emphasizes the importance of the role of the finance ministry in a booklet on **Public Investment and PPPs** [#6, page 10]. For example, **Monteiro's article on PPPs and Fiscal Risks: Experience of Portugal** [#5, pages 5-8] describes a typical "gateway" process, and how this process works in Portugal. At several stages, the finance ministry must check and may stop a PPP from proceeding if it believes it is not affordable, or that the proposed PPP structure will not offer value for money. The IMF also emphasizes the importance of the role of the finance ministry in its booklet on **Public Investment and PPPs** [#6, page 10].

The **State of Victoria,** Australia PPP Guidelines (2010) set out a similar control process for all major investment projects involving an independent panel of experts. All "high value or high risk" projects—including PPPs—go through a "gateway approval" process, established by the Department of Treasury and Finance. A panel of experts that are not directly involved in the project carries out reviews at key stages in developing and implementing the project, called "gates". For PPPs, there are five gates: strategic assessment, business case, readiness for market, readiness for service, and benefits evaluation [#27, pages 5-6].

As discussed in Section 2.2.3, many Ministries of Finance have built special PPP units through which to carry out their regulatory function.

## Role of planning agencies

In countries where planning agencies perform a strong coordination function in infrastructure or economic policy generally, they may also be given the role of regulating the PPP process. For example, in the **Philippines**, under the BOT Law (2004) PPPs must be approved by the NEDA Board, as described in Section 2.2.2.2. Projects are recommended to the NEDA board by the Investment Coordinating Committee (ICC), which is a subset of the members of the NEDA board. The ICC's recommendation is in turn informed by a review by NEDA's technical staff, to check the project submission is complete, and adequately demonstrates the project complies with requirements for financial, economic, social, and environmental impacts [#29] Where a planning agency is involved in a control function, the program generally works best when there is also a mechanism for effective coordination with the finance ministry. For example, the **Philippines** achieves this through having the Secretary of Finance on the ICC and the NEDA Board[41]. In Chile, Ministry of Planning approval of project economic and social analysis is defined as a prerequisite for the Ministry of Finance to approve a PPP [#16, Article 8]. In contrast, in Indonesia BAPENAS—the planning agency—houses the PPP unit, but lacks an effective way to involve the Ministry of Finance in PPP project development. **Castalia's review of PPP Programs in Indonesia and elsewhere** [#14, pages 37-38] highlights this deficiency as one of the main reasons for the slow progress of PPPs in Indonesia.

41. NEDA (2005) *ICC Guidelines and Procedures*, page 2.

## Input from other oversight agencies

An important function of the "regulating agencies" can be to make sure that the necessary reviews and input from other government entities is brought in at the right time. This could include sign-off from the attorney general, or other agencies with regulatory responsibilities relevant to the PPP, such as environmental agencies, or bodies responsible for land use.

For example, The PPP law of **Tanzania** (2010) requires that the implementing agency to submit the final draft PPP contract for approval by the Attorney General, before the contract is executed [#25, pages 15-16]. The approval of the Attorney General is also required in **Jamaica** [#30]. The PPP approval process in **Korea**, as described in a 2010 ADB report, requires consultation with "related administrative agencies"—that is, agencies with responsibilities mandated in any law that are relevant to a proposed project. To ensure speedy process, the related agency has 30 days to respond in writing and non-response is considered a consultation [#31, Article 17, pages 17-18].

## 2.2.3 Establishing a PPP Unit

Many Governments with successful PPP programs have created a dedicated entity tasked with implementing, facilitating, or advising on PPPs. These are referred to as PPP Units.

A **World Bank review of experience with PPP Units worldwide** [#7, pages 25-37] canvasses the roles played by a number of PPP units around the world. These often include:

- **Regulating the PPP process**—as described in Section 2.2.2.3**,** this includes making sure that the right steps are taken in developing a PPP, that the required analysis shows the project is consistent with appraisal criteria, and that all required approvals have been obtained
- **Promoting PPPs within government**—for example, reminding implementing agencies that it may be desirable to do large new projects as PPPs
- **Helping agencies to implement PPPs**—offering experience and special skills acquired because of their focus on PPPs and involvement in so many projects, as described in Section 2.2.2.1
- **Providing channels to investors**—helping bidders and financiers, who may otherwise be unsure who to ask, with information about the program and up-coming opportunities.

Many PPP units fulfill a combination of these functions. The mix of functions performed is a matter of design, history, and local context, as the examples in Table 2.2.2 illustrate. The **World Bank's review of PPP Units** [#7, page 3] highlights that the design of the unit also needs to reflect its functions. For example, units that focus on regulating and controlling the PPP process may often be located in **finance ministries** or **planning agencies**, as described in Section 2.2.2.3. In some Latin American jurisdictions, an **investment promotion agency** leads in promoting and structuring PPP projects, with finance ministry approval needed for

fiscal commitments. Some countries have housed PPP units in **development banks**, whose experience with private sector investments can help in implementing PPPs.

If a unit is both guiding and advising and approving, then it needs to be designed to handle the potential conflict of interest. This can be handled by internal firewalls, involving other entities in approvals, or adding scrutiny by audit or other oversight agencies [#8, pages 3-4].

The **World Bank review** [#7, pages 61-65] also points out that despite the wide spread tendency to create PPP units, they are not always required, nor will they always succeed in creating successful PPP programs. In particular, PPP's will probably not help much where high-level political commitment to a quality PPP program is lacking.

**Table 2.2.2: PPP Unit Example**

| Parent Entity | Examples and Functions |
|---|---|
| Finance Ministry or Treasury | The PPP units in the **UK** and **Victoria** (Australia) have played an important role in promoting PPP as an implementation method. Both were attached to the Treasury. Since 2004, a PPP unit in **South Africa** has also been attached to the Treasury, and appears very similar, but has had a stronger emphasis on controlling the PPP process and preventing fiscally risky PPPs from proceeding [#24, pages 48]. In 2009, **New Zealand** created a Unit in the Treasury, naming it the National Infrastructure Unit in recognition of its function of promoting more, and more effective, investment in infrastructure. Its focus is therefore on promoting the best options for infrastructure investment, rather than just PPPs[42] |
| Planning Agency | • As of 2010, the **Philippines** is moving away from the previous model of a BOT Center that provided information and advice on PPPs, to a unit within the National Economic and Development Authority (NEDA) with a stronger regulatory and control function [#22]<br>**Colombia** has a PPP unit within the National Planning Department[43]. This unit is responsible for developing and implementing PPP-related policies and coordinating the PPP procurement process and project transactions, such as managing transaction advisors [#32] |
| Investment Promotion Agency | • In **Uruguay**, under Law 18786 (2011), the CND—a state owned investment promotion agency—acts as a PPP Unit in many respects. It helps structure projects, gives advice and produces guidance materials for implementing agencies. The contracting authority and CND may sometimes agree to have the CND implement the PPP project. A separate **PPP Unit** in the Ministry of Finance approves financial and budgetary aspects of projects, and monitors implementation of the PPP. The PPP Unit is also responsible for approving any contract adjustments during implementation. [#33, Articles 9-13, 23, 38]<br>• Similarly in **Peru**, Legislative Decree No.1012 (2008) enables PROINVERSION (the investment promotion agency) selects the type of PPP, designs it, and drafts the contract. Ministry of Finance approval is needed if the project requires subsidies [#20, Article 9]<br>• In the **State of São Paulo, Brazil**, CPPwas established in 2004 as an investment promotion agency that helps to develop and structure PPPs. CPP also manages a trust fund that provides guarantees to PPP projects [#34, Article 12-18] |

| Parent Entity | Examples and Functions |
|---|---|
| Development Bank | • In **Jamaica** the National Investment Bank of Jamaica, and its successor the Development Bank of Jamaica, has long functioned as the Government's privatization and PPP agency. In recognition of the fiscal risk Jamaica took on in many of its previous PPPs, the government is creating a new PPP framework as of 2011, with a stronger role for the Ministry of Finance, but has retained the Development Bank as lead PPP agency [#30]<br>• **Puerto Rico**'s PPP Law (2009) created an effective PPP Unit within its Development Bank [#22, page 1]<br>• In **Mexico**, FONADIN, part of the national development bank Banobras, functions like a PPP Unit for some PPPs. FONADIN's Rules of Operation (2011) assign responsibilities to various secretariats (finance, communications and transport, tourism) [#28, Title One, Chapter IV, Rule 5.13, Title Two, Chapter II, Rule 8.6, Title Three, Chapter IV Rules 18], and to different units within FONADIN (technical committee, business units, evaluation sub-committee, and monitoring unit) for developing and approving PPPs [#28, Title Seven. Chapters I-VI, Rules 37-56] |

The following papers review the experience of various units worldwide, describing their roles, responsibilities, and structures, when they have been successful, and when less so, drawing lessons for their design:

**World Bank and PPIAF publication on PPP Units: Lessons in their Design and Use** reviews experiences of PPP units in Bangladesh, Jamaica, Philippines, Portugal, South Africa, UK, and Korea [#7]. The lessons drawn are also summarized in a shorter, Gridlines paper [#9]

A second **World Bank paper on PPP Units—What Are They, and What do they Do** [#8]—briefly describes the roles of PPP units in India, Canada, Ireland, Italy, the Netherlands, the Philippines, South Africa, the UK, and Australia. The paper draws lessons for PPP unit design [#10]

A **study by Stanford University** examines PPP units in eight developed countries, and also offers a road map to help guide public officials wanting to establish a PPP unit. The study also provides a list of PPP units from around the world [#11]

An **OECD survey of PPP unit institutional and governance structures** reviews experience with PPP units in the OECD, and includes detailed case studies describing the location, functions, and roles of PPP units in the State of Victoria, Australia, Germany, Korea, the United Kingdom, and South Africa [#12]

A paper by **Philippe Burger reviews the PPP program in South Africa** and the role of the dedicated PPP unit [#13].

The **UNESCAP website**[44]also provides a long (but not exhaustive) list of web links for PPP Units and related entities worldwide.

---

42. For a description of the responsibilities of the unit, see http://www.infrastructure.govt.nz/aboutniu/responsibilities

43. Colombia also has two other PPP units. One is located in the Ministry of Finance and is responsible for the fiscal aspects of PPP projects. The other unit is housed in the Ministry of Transport, which is responsible for PPP projects related to highways and roads

44. http://www.unescap.org/ttdw/ppp/PPPUnits.html.

| Key References: PPP Processes and Institutional Responsibilities | | |
|---|---|---|
| | **Reference** | **Description** |
| 1 | Yescombe (2007) *Public-Private Partnerships: Principles of Policy and Finance* Butterworth-Hienemann [ISBN: 978-0-7506-8054-7] | This book provides a comprehensive review of PPPs, including guidance to practitioners about key aspects of designing and implementing PPP policy and projects. Chapter 5 provides guidelines for public-sector appraisal of PPP projects |
| 2 | Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets* World Bank and PPIAF | This guide for public sector practitioners describes how to develop and implement a PPP successfully, by developing a marketable project and attracting the right private partners. Chapter 4 describes guidelines for PPP project selection |
| 3 | European PPP Expertise Center (2011) *The Guide to Guidance: How to Prepare, Procure, and Deliver PPP Projects* European Investment Bank | A guide and sourcebook for PPP policies and project implementation. Chapter 1 presents a short guide on project identification |
| 4 | Irwin (2007) *Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects* World Bank | This report covers topics relating to fiscal impacts of PPP projects and provides frameworks to guide policymakers. It offers lessons learned in managing liabilities, direct or contingent, and case studies |
| 5 | Monteiro (2007) *PPP and Fiscal Risks: Experiences from Portugal* Paper presented to the "International Seminar on Strengthening Public Investment and Managing Fiscal Risks from Public-Private Partnerships", sponsored by the International Monetary Fund, the Hungarian Ministry of Finance, and the International Center for Economic Growth, Hungary, March 7-8 | This paper explores the experience of Portugal's PPPs experience, with regard to the regulation and governance, "gateway process", and fiscal impact and affordability |
| 6 | Akitoby, Hemming, and Schwartz (2007) *Public Investment and Public-Private Partnerships* IMF Economic Issues No. 40 | A short booklet describing the implications of PPPs for public investment, including how PPP commitments should be managed and controlled |
| 7 | World Bank Sustainable Development Department in East Asia & Pacific (2007) *Public Private Partnership Units: Lessons for their Design and Use in Infrastructure* World Bank, PPIAF | This report provides a comprehensive assessment of the effectiveness of PPP units in developed and developing countries. The report offers lessons of the context in which PPP units have been most effective |
| 8 | Dutz, Harris, Dhingra, andShugart(2006) *Public Private Partnership Units: What Are They, and What Do They Do?* World Bank Public Policy for the Private Sector Note 311 | A short note reviewing several country experiences with PPP units, and provides high-level recommendations to improve governance and their effectiveness |
| 9 | Sanghi, Sundakov, and Hankinson (2007) *Designing and Using Public-Private Partnership Units in Infrastructure: Lessons from Case Studies Around the World* Gridlines Note No. 27, Sept 2007 | Summary of lessons from source #7 above |
| 10 | Energy and Infrastructure Unit and Finance and Private Sector Development Unit, South Asia Region (2006) *India: Building Capacities for Public-Private Partnerships* World Bank | More details on case studies presented in source #8 above, including their applicability to India |

| Key References: PPP Processes and Institutional Responsibilities | | |
|---|---|---|
| | **Reference** | **Description** |
| 11 | Farrugia, Reynolds, and Orr (August 2008) *Public-Private Partnership Agencies: A Global Perspective* Stanford University Collaboratory for Research on Global Projects, Working Paper #39 | A review of PPP units with a focus of experience of developed countries. The report includes case studies and reviews the key aspects of eight difference agencies |
| 12 | OECD (2010) *Dedicated Public-Private Partnership Units: A Survey of Institutional and Governance Structure* OECD [ISBN: 9789264006515] **French Version**: *Les Unités Consacrées aux Partenariats public-privé: une etude des structures at de gouvernance* OECD [ISBN 9789264083851] | Provides an overview of dedicated PPP units in OECD countries, including case studies of the experience of five jurisdictions (State of Victoria, Australia, Germany, Korea, the United Kingdom, and South Africa) |
| 13 | Burger (2006) *The Dedicated PPP Unit of the South African Treasury* Paper presented at the OECD Symposium on Agencies and PPPs | This paper provides a review of the PPP program in South Africa and its dedicated PPP unit |
| 14 | Castalia (2009) *Benchmarking Indonesia's PPP Program* Report to the World Bank Institute | Report examining the progress of Indonesia's PPP program and offering recommendations for growth based on comparisons with programs in South Africa, Netherlands, and Colombia |
| 15 | Juan Carlos Zevallos Ugarte (2011) *Concesiones en el Perú: Lecciones Aprendidas* (*Concessions in Peru: Lessons Learned*) Fondo Editorial de la USMP | Describes lessons learned from Perú's PPP program, including a description of the institutional arrangements for implementing PPP projects |
| | **PPP Processes and Institutional Responsibilities Examples** | |
| 16 | National Congress of Chile (2010) *Law 20410 ("Concessions Law")* | Sets out the processes for handling unsolicited proposals, tendering, monitoring, and dispute resolution |
| 17 | Public Private Partnership Central Unit (2007) *National Program for Private Partnership* 2nd Edition, Ministry of Finance, Government of Egypt | Egypt's comprehensive guidelines and policies for PPPs, including regulations for the PPP procurement process. It also provides an outlines of the institutional responsibilities within the government and the approval process |
| 18 | Kim, Kim, Shin and Lee (2011) *Public-Private Partnership Infrastructure Projects: Case Studies from the Republic of Korea, Volume 1: Institutional Arrangements and Performance* Asian Development Bank | This report reviews the PPP program in Korea, including case studies of interesting PPP projects |
| 19 | Malaysia PPP Unit (2005) *Garis Panduan: Kerjasama Awam-Swasta (Guidelines: Public-Private Partnership)* Prime Minister's Department, Government of Malaysia | The Government of Malaysia's policy framework and procurement process for PPPs are outlined in this document |
| 20 | President of Peru (2008) *Legislative Decree No. 1012* Presidency of the Republic of Peru | Sets out the entire PPP process (from appraisal to tendering and the implementing the contract), and it also defines the institutional framework for PPPs in infrastructure—this includes defining the role of the Ministry of Finance and the PPP promotion Agency PROINVERSION) |
| 21 | Congress of the Philippines (1993) The Philippine BOT Law *Republic Act No. 7718* Republic of the Philippines | The set of laws for PPPs in the Philippines, including implementing rules and regulations of the PPP process |
| 22 | President of the Philippines (2010) *Executive Order No. 8* Office of the President | The decree amends some of the rules and regulations for the PPP policy, and also dissolves the BOT Center and establishes a PPP unit under NEDA |

| Key References: PPP Processes and Institutional Responsibilities | | |
|---|---|---|
| Reference | | Description |
| 23 | Legislature of Puerto Rico (2009) *PPP Act No. 29* Commonwealth of Puerto Rico | Sets out the processes for assessing the desirability and convenience of the PPP project, tendering the project, designing the contract, and monitoring its implementation. It also establishes the PPP Authority, and assigns responsibilities to the Authority and other government agencies. |
| 24 | National Treasury PPP Unit (2004) *PPP Manual* Government of South Africa | The comprehensive PPP manual outlining the PPP procurement process for South Africa., including the approval process |
| 25 | The United Republic of Tanzania (2010) *Public Private Partnership Act, 2010* Government of Tanzania | Tanzania's PPP law, which creates and outlines responsibility for a new PPP unit. The law also describes the requirements for PPP projects in the country and the responsibility of each actor and stakeholder |
| 26 | Government of Colombia (2010) *Manual de Procesos y Procedimientos para la ejecución de Asociación Público Asociaciones Público-Privadas* (*Process and Procedures Manual for PPP Projects)* Ministerio de Hacienda y Credito Publico, Subdireccion de Banca de Inversion | Manual that provides, in detail, the PPP procurement process in Colombia |
| 27 | Partnerships Victoria (2010) *National PPP Guidelines: Partnership Victoria Requirements Version 2* Department of Treasure and Finance, State of Victoria | These guidelines outline the objective, scope, and principles of the PPP program in the State of Victoria, Australia. The guidelines also include a revised PPP procurement process to adhere to changes in the national guidelines |
| 28 | BANOBRAS(2000) FONADIN *Reglas de Operacion* (*Rules of Operations)* | Sets out the process for assessing, approving, tendering, selecting, and monitoring PPP projects supported by FONADIN. It also assigns responsibilities to various secretariats (finance, communications and transport, tourism), and to the different units within FONADIN |
| 29 | Philippines National Economic and Development Authority (2004) *ICC Project Evaluation Procedures and Guidelines* Investment Coordination Committee | The guidelines by which projects are evaluated by the Investment Coordination Committee (ICC) in the Philippines, including reporting requirements of the implementing agency |
| 30 | Government of Jamaica (2011) *Government of Jamaica Policy Framework and Procedures Manual for the Privatization of Government Assets—Draft* Summarized on the following website: http://www.dbankjm.com/privatisation-of-goj-assets | The forthcoming policy guidelines and procurement procedures for the PPP program in Jamaica |
| 31 | Government of Korea (2010) *Act on Public Private Partnerships in Infrastructure* | Korea's law and regulations for PPP projects in infrastructure. This act outlines the institutional responsibilities of the different actors and also provides detail on the implementation and procurement process for PPPs |
| 32 | Congress of Colombia (2011) *Law 1508 ("PPP Law")* | Sets out the institutional responsibilities and processes for PPPs in Colombia. In particular, it sets out the roles of the Ministry of Finance and the National Planning Department, the Committee on Economic and Social Policy (CONPES), and the Committee on Fiscal Policy (CONFIS) |
| 33 | Parliament of Uruguay (2011) *Law 18786("PPP Law")* | Sets out the institutional framework for PPP and the process for identifying, assessing, approving, tendering, contracting, and monitoring PPP projects. Article 13 sets out the PPP Unit within the Ministry of Finance and defines its responsibilities, such as monitor economic and financial aspects, verify compliance with budgetary requirements, assess related risks, and carry out the additional analyses required by the Ministry of Finance |

| Key References: PPP Processes and Institutional Responsibilities | | |
|---|---|---|
| Reference | | Description |
| 34 | Legislative Assembly of the State of São Paulo, Brazil (May 2004) *Law 11688 ("PPP Law")* | Establishes how the CPP is funded, its composition, organizational structure, and role |
| 35 | General Congress of the United States of Mexico (2012) *Ley de Asociaciones Publico Privadas (PPP Law)* | Sets out in detail the process and institutional responsibilities for developing and implementing PPP projects in Mexico |

## 2.3. PPP Program Oversight

The executive branch of government is largely responsible for implementing PPP projects. The processes and institutional responsibilities described in Section 2 largely aim to create checks and balances within the executive branch on how those decisions are made. This section describes the broader governance of the PPP program—how other entities and the general public participate in the PPP process, and hold the executive accountable for its decisions and actions.

The entities and groups outside the executive with a role to play in ensuring good governance of the PPP program can include:

- **The legislature**—the legislative branch of government oftendefines the PPP framework, by passing PPP legislation. In some cases, the legislature may be directly involved in the PPP process, approving PPP projects. More commonly, it exercises ex-post oversight, scrutinizing reports on the government's PPP commitments

- **Auditing entities**—many jurisdictions have independent audit entities, which can have a role in ensuring good governance of PPP programs. These entities may simply consider PPP commitments as part of their regular audit responsibilities—for example in auditing government financial statements. They may alsoreview PPP project performance or investigate particular points of concern, or review the value for money of the program as a whole. These reviews in turn enable the legislature and the public to check on PPP program performance

- **The public**—the public can directly participate in PPP project design, through consultation processes, and in monitoring service quality by providing channels for feedback. Transparency of the PPP process as a whole, and an active media, can inform public opinion and—if the issues are serious enough—influence elections.

Creating mechanisms through which the legislature, audit bodies, and the public can engage in the PPP processstrengthens accountability, and helps make the PPP program more participatory, transparent, and legitimate.

## 2.3.1 Role of the Legislature

The legislative branch of government—that is, the elected, law-making parliament or assembly—may engage in the PPP process in several ways. These include:

- **Defining the PPP framework**—the PPP Framework is often established in specific PPP legislation. As described in Section 2.5: PPP Legal and Regulatory Framework, one rationale for introducing a PPP law is to enable the legislative branch of government to set rules for how PPPs will be developed and implemented, against which those responsible can be held accountable

- **Defining limits on PPP commitments**—as described in Section 2.3.3.2,the legislature may limit total PPP commitments, or the amount taken on in a year, or otherwise govern the risk and inter-generational equity issues that PPPs can create

- **Approving PPP projects**—PPP projects may require parliamentary approval, as described in Section 2.2.2.2. This requirement can be limited to PPP projects above a certain size. For example, the Hungarian PPP Act (1992) states the government must seek Parliament's approval before signing a contract creating multi-year payment obligations with a present value of more than US$230 million[45]. In Guatemala, on the other hand, all PPP contracts require approval from Congress[46]

- **Receiving and reviewing reports on the PPP program**—as described in **Section 4: Public Financial Management Framework for PPPs**, many governments include information on the PPP programing budget documents and other financial reports. This gives Parliament the opportunity to scrutinize the government's commitments to PPPs, and hold the decision-makers responsible after the event. Parliament may also commission and receive auditors' reports on the PPP program and processes,as described further in Section 2.3.2.

Examples of legislative audits and reviews of PPP programs are described below:
In 2005, the Parliament (House of Commons) of the UK published a performance audit of the **30-year PPP for the London Underground urban mass transit system**. The report assessed the government's justification for the maintenance and upgrade contract with the private sector, the value for money analysis, and overall structure of the PPP. The report provided conclusions and offered recommendations for future changes, which the UK Treasury then addressed to Parliament [#4]

The Public Accounts and Estimate Committee in the Parliament of Victoria, Australia reviewed Partnerships Victoria, the PPP program, in the context of governance, risk allocation, accountability, protecting the public interest, economic benefits and value for money, and international accounting standards for PPPs. Recommendations are then made to improve PPP policies and strengthen governance of the projects.[47]

---

45. Irwin (2007) *Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects* World Bank.

46. Congress of the Republic of Guatemala (2010) *Ley de Alianzaspara el Desarollo de InfraestructuraEconómica (Law of Partnerships for the Management of Economic Infrastructure).*

47. *Report on Private Investment in Public Infrastructure, Seventy First Report to the Parliament*, Public Accounts and Estimates

## 2.3.2 Role of Audit Entities

Supreme audit entities are an important link in the chain of accountability for public expenditure decisions—providing independent reviews of government finances and performance to parliaments and to the public. The International Organization of Supreme Audit Institutions (INTOSAI) provides an online list of its member audit entities.[48]

The mandate of supreme audit entities varies by jurisdiction, butoften includestwo types of audit. The first is regularity audits, which can include auditing the financial statements of government entities and of government as a whole, and auditing decision-making processes for compliance and probity. The second is performance, or value for money audits—reviewing the government's effectiveness and efficiency.[49]Other entities may play a similar role—for example, government procurement agencies may be responsible for checking that procurement processes have been followed, as does the Contractor General in Jamaica.

Supreme audit entities can also have a role in PPP programs. In some jurisdictions, audit entities must sign off on PPP contracts before they can be implemented. Audit entities may then need to consider PPP commitments and processes as part of regular audits of contracting authorities and of the government as a whole. Audit entities may also conduct performance audits of PPP projects, or review the value for money of the program as a whole. This section describes each of these elements of auditing PPP programs.

For further examples of how PPP auditing works in practice, see the articles on PPP Audits in Portugal, and Hungary's audit experience with PPPs, in the IMF publication on Public Investment and PPPs [#1, Chapters 17 and 18].

---

Committee, Parliament of Victoria, 2006.

48. See http://www.intosai.org/about-us/organisation/membership-list.html

49. INTOSAI's International Standards of Supreme Audit Institutions (ISSAI) 100 sets out basic principles in government auditing. Paragraphs 34-44 describe the mandates of audit institutions, and define regularity and performance audits.

**Box 2.3.1: Audit Entity Access to PPP Company Information**

While the remits of supreme audit entities vary, they typically extend only to government agencies, and entities wholly or majority owned by government. Supreme audit entities therefore typically do not have the right or responsibility to audit PPP companies. Nonetheless, the private company often holds a lot of relevant information. The access of the audit entity to information held by the private party has the potential to create conflict.

**Public Auditing Guidelines for PPPs issued by the Comptroller and Auditor General (CAG) of India** (2009) discuss this issue in Section III: Scope and Objectives of PPP Audit. The guidelines suggest that access rights for the CAG in carrying out PPP projects may need to be defined in the public audit statute. In the meantime, the guidelines note that the audit entity is likely only to have access to information held by the contracting authority given its contract monitoring role [#2, Section 3, pages 29-38].

INTOSAI has published **guidelines for auditing PPP projects** (2007) which note that the audit entity must be clear about its access rights to the private company associated with the PPP [#3, Section 1, Guideline 1, page 9].

## 2.3.2.1 Regularity auditing for PPPs

When carrying out regularity audits of contracting authorities, audit entities may need to check that PPP commitments are appropriately reflected in accounts, and that PPP processes have been followed. For example, the **South Africa PPP Manual Module 7: Auditing PPPs** [#5] describes how the scope of the Auditor General's annual regularity audits applies to PPPs. This includes:

- Checking compliance—the Auditor General is required to check that the requirements of the PPP Regulations have been met, for example that the appropriate treasury approvals were sought and granted
- Checking financial reporting—the Auditor General must also check the financial implication of the PPP for the institution. This includes checking that information on PPPs in "notes to the financial accounts" is correct, and that commitments to PPPs have been accounted for appropriately. (For more on accounting requirements for PPPs see **Section 2.4.3: Fiscal Accounting and Reporting for PPPs**).

According to the guidelines, the Auditor General in South Africa may also carry out forensic audits (should the regular audits raise any suspicion of fraud or corruption), or performance audits, as described further in the following section.

## Performance auditing of PPP projects

Auditing agencies may also carry out performance, or value for money audits of particular PPP projects. INTOSAI published guidelines for auditing PPP projects in 2007 [#3] with the aim to help audit entities carry out thorough performance audits of PPP projects, leading to recommendations for improved performance, and the spread of good practice.

The INTOSAI guidelines recommend that the audit office review a PPP project soon after procurement, and carry out further reviews over the project lifetime. The guidelines recommend the review cover all major aspects of the deal that have a bearing on value for money. They provide guidance for reviewing how the PPP was identified, how the transaction process was managed, the tender process adopted, how the contract was finalized, and on-going management of the PPP contract.

Auditors and other similar bodies may in particular review particular projects where there is concern over whether processes have been appropriately followed, or whether the project is providing value for money.

The following are examples of PPP project performance audits:

- In the State of New South Wales, Australia, the Auditor-General audited the **Cross City Tunnel** through Sydney. The 2006 report included an analysis of the process in which the PPP contract was awarded, how the contracted was eventually amended, and whether the costs of the project to citizens were justified. The project was criticized for its high tolls, lower than expected levels of traffic, and a lack of transparency in the amendment of the initial contract. The Auditor-General provided opinions on each of these issues based on the analysis [#6]

- In Jamaica, the Contractor General undertook a detailed investigation of the procurement process for a proposed **Natural Gas Regasification project**, prompted by a letter from a "concerned citizen" noting that the project had been the subject of direct negotiation. The 2011 report reviewed the entire process of the procurement process, examining each of the actors and highlighting potential conflicts of interest[50]

- The State of Victoria, Australia, awarded concession contracts (called "franchises") for the **tram and train system in the city of Melbourne**. When these operators ran into financial difficulties, the government decided to renegotiate with the existing private contractors, rather than re-tender. Because of the concerns this raised for the resulting value for money, the government committed to carrying out an ex-post value for money audit of the concessions and renegotiations. The report, published in 2005, focused on the effectiveness of the responsible agency, transparency of the process, proper risk

50. Office of the Contractor General of Jamaica (2011) *Special Report of Investigation: Allegations Regarding the Proposal for the Financing, Development, Ownership, and Operation of a FSRU LNG Re-Gasification Terminal and Natural Gas Transportation System* available online at: http://www.japarliament.gov.jm/attachments/628_OCG%20LNG%20Special%20Investigation%20Report%20Part%201.pdf.

allocation of the project, the development of public sector benchmarks, and adequate monitoring systems.[51]

### 2.3.2.3 Auditing the PPP program

In some countries with well-developed PPP programs, audit entities have undertaken value for money reviews of the PPP program as a whole. For example, in the UK, audit entities have compared PPPs and traditionally procured public projects, to assess whether and how PPPs provide value for money, and feed back into PPP decision-making. In 2011, the National Audit Office published a review of the PFI program and other large procurement projects and provided key lessons from the UK's experience. The NAO assessed various aspects of the program, including value for money, project preparation and implementation, and accountability. Based on this analysis, the NAO offered recommendations for future improvements to the PFI program [#7]. These findings are summarized in Module 1.

## 2.3.3 Role of the Public

PPPs are meant to provide value to the public. Getting the right level of public involvement in the PPP process and program can make or break the legitimacy of a PPP program, and directly contribute to good governance as defined in Box 2.1: Good Governance for PPPs.Direct public participation at various points in the PPP process can improve project design. Equally important, making PPP projects and processes transparent enables PPP performance to be afactor inpublic policy debate, and in the formation of public opinion on the government's overall performance.

### 2.3.3.1 Public participation in the PPP process

Public participation can be introduced into the PPP process at three stages:

- PPP program development—engaging the public from the onset, by involving them in the development of the PPP policy framework and continuing to seek feedback as the program is developed
- PPP project development—introducing stakeholder consultation in the PPP development process, so public concerns can be taken into consideration when structuring and implementing PPPs. Module 3, Section 3.3: Structuring PPP Projects provides more guidance on carrying out stakeholder consultations as part of developing a PPP
- PPP contract monitoring—building mechanisms for user feedback and grievance resolution into contract agreements and management frameworks. Module 3, Section 3.7: Managing PPP Contracts provides guidance and examples for how the public can play a role in monitoring contractor performance.

---

51. Auditor General Victoria (2005) *Franchising Melbourne's Train and Tram System* Victorian Government Printer, available at: http://download.audit.vic.gov.au/files/ptfranchising_report.pdf.

## 2.3.3.2 Transparency of the PPP program

Many governments make information about the PPP program publicly available. This enables the media to report on the program, and the public to develop informed opinions on the government's performance in implementing PPPs. Where the performance of PPP projects is a sufficiently serious concern, the public may in turn exert pressure on government to improve its performance—for example, through protests, and ultimately through elections. For example:

- In 2002, the Government of Ghana tried to establish a PPP for the urban water sector, and awarded a contract to Azurix through direct negotiations. However, the PPP was subsequently halted due to a lack of transparency and accusations of corruption in the selection process. Local citizens, NGOs, and other members of civil society then formed the National Coalition Against Privatization of Water, which has since played a major role in driving decision-making for the urban water sector[52]

- One of the most famous cases of a failure of the PPP is the case of the concession of the water supply and services in Cochabamba, Bolivia from 1997 to 2000. The concession was awarded a private consortium, Aguasdel Tunari, led by International Water (a joint-venture between Bechtel and Edison of Italy) and including Abengoa of Spain and four local Bolivian companies. The concession contract was signed without clear information on the financial situation of the utility and also included the construction of an expensive new water supply. These factors drove a tariff increase of over 38 percent. There were also disputes about water rights. Protests ensued, and the contract was cancelled[53]

- In the UK, there is a robust debate over the use of PPPs and their advantages and disadvantages. Advocates against PPPs have used many forms of media to mobilize opposition to PPPs. For example, a group called Globalize Resistance has openly criticized the PFI program.[54]

As described in Section 2.4.3, international standards require disclosure of financial commitments to PPPs in national accounts. Some governments go further, requiring disclosure of key contract clauses, or entire PPP contracts. Typically, any commercially sensitive elements of the contract are excluded from the published version. For example, the Victorian Freedom of Information Act of 1982 requires that all PPP contracts be published on Victorian Government Purchasing Board website (www.vgpb.vic.gov.au). In addition, a project summary is required, providing information on the key project features and commercial terms of the project. [#8, Section 19, page 10

52. *Framing the Water and Sanitation Challenge: A history of urban water supply and sanitation in Ghana 1999-2005*, University of Umea Doctoral Dissertation, Anna Bohman, 2010.

53. *The Cochabamba "Water War": An Anti-Privatization Poster Child?,* David Bonnardeux, 2009.

54. See resist.org.uk.

| Key References: PPP Program Oversight | | |
|---|---|---|
| | **Reference** | **Description** |
| 1 | Machado *PPP Audits in Portugal*, and Bager *Hungary's Audit Experience with PPPs* Both in Schwartz, Corbacho, and Funke (eds.) (2007) *Public Investment and Public-Private Partnerships* IMF [available from Palgrave in hard back, ISBN-13 978-0-230-20133-0] | A collection of papers on managing the fiscal impact of PPPs, drawing form an IMF conference held in Budapest in 2007. Part Four: PPP Accounting, Reporting, and Auditing examines the role of different institutions to ensure accountability |
| 2 | Comptroller and Auditor General of India (2009) *Public-Private Partnerships in Infrastructure Projects: Public Auditing Guidelines* Comptroller and Auditor General of India | These draft guidelines outline the regulatory framework in which the Comptroller and Auditor General of India will audit PPP projects. It first provides a justification for audits under the PPP law and then provides an overview of the methodology and evaluation criteria for the audit |
| 3 | INTOSAI (2007) *Guidelines on Best Practice for the Audit of Public/Private Finance and Concessions (revised)* **Spanish version:** *Lineamientos para la Mejor Prácitca en la Auditoría de Financiamiento Público/Privado y Concesiones* **French version:** *Directives sur les meilleures pratiques pour le contrôle des financements public/privé et des concessions* **German version:** *Richtlinienüber das beste Vorgehenbei der Prüfung des öffentlich-privatenFinanzierungs- und Konzessionswesens* | Provides guidelines on best practices for evaluating PPP project throughout the entire lifecycle |
| **PPP Program Oversight and Accountability: Examples** | | |
| 4 | Committee of Public Accounts (2005) *London Underground Public Private Partnerships*: 17*th Report of Session 2004-2005* House of Commons | The Parliament of the UK conducted an evaluation of the maintenance and rehabilitation contract for the London Underground with a private operator |
| 5 | National Treasury PPP Unit (2004) *South Africa PPP Manual Module 7: Auditing PPP Projects* Government of South Africa | The comprehensive PPP manual outlining the PPP procurement process for South Africa., such as the approval process It also provides technical guidance for value-for-money and affordability analysis. Module 7 provides guidelines for auditing PPP projects |
| 6 | New South Wales Auditor General (2006) *Auditor-General's Report Performance Audit: The Cross City Tunnel Project* The Audit Office of New South Wales | This report from the Auditor General of New South Wales, Australia evaluates a tunnel project through Sydney against the criteria set in the PPP guidelines |
| 7 | Comptroller and Auditor General (2011) *Lessons from PFI and Other Projects* National Audit Office The report can be seen online in the House of Commons *Forty-fourth Report of Session 2010–12* House of Commons Committee of Public Accounts | The National Audit Office has published an extensive review of the PFI program and other large infrastructure projects to evaluate value-for-money of the program and the performance of government units |
| 8 | Partnerships Victoria (2010) *National PPP Guidelines: Partnerships Victoria Requirements Version 2* State of Victoria | These revised PPP guidelines outline the objective, scope, and principles of the PPP program in the State of Victoria, Australia. The revised guidelines also include a revised PPP procurement process to adhere to changes in the national guidelines |

## 2.4. Public Financial Management Framework for PPPs

PPP contracts often have financial implications for Governments. Payment commitments under PPP contracts are often long-term, and can be contingent on one or more risks as Box 2.4.1 describes. This can create particular challenges for public financial management, which is generally geared to annual appropriations for expenditure. For this reason, PPP-specific approaches to public financial management have been developed.

**Box 2.4.1: Types of Fiscal Commitments to PPPs**

Fiscal commitments to PPPs can be regular payments constituting all or part of the remuneration of the private party, a means to share risk, or a combination of the two. Common types of government fiscal commitments to PPPs include the following:

**Direct liabilities**

Direct liabilities are payment commitments that are not dependent on the occurrence of an uncertain future event (although there may be some uncertainty regarding the value). Direct liabilities arising from PPP contracts can include:

- **Upfront "viability gap" payments**—an up-front capital subsidy (which may be phased over construction, or against equity investments)
- **Availability payments**—a regular payment or subsidy over the lifetime of the project, usually conditional on the availability of the service or asset at a contractually specified quality. The payment may be adjusted with bonuses or penalties related to performance
- **Shadow tolls, or output-based payments**—a payment or subsidy per unit or user of a service—for example, per kilometer driven on a toll road.

**Contingent liabilities**

Contingent liabilities means payment commitments whose occurrence, timing and magnitude depend on some uncertain future event, outside the control of government. Contingent liabilities under PPP contracts can include:

- **Guarantees on particular risk variables**—an agreement to compensate the private party for loss in revenue should a particular risk variable deviate from a contractually specified level. The associated risk is thereby shared between the government and the private party. For example, this could include guarantees on demand remaining above a specified level; or on exchange rates remaining within a certain range
- **Compensation clauses**—for example, a commitment to compensate the private party for damage or loss due to certain, specified, uninsurable *force majeure* events
- **Termination payment commitments**—a commitment to pay an agreed amount, should the contract be terminated due to default by the public or private party—the amount may depend on the circumstances of default

- **Debt guarantees or other credit enhancements**—a commitment to repay part or all of the debt used to finance a project. The guarantee could cover a specific risk or event. Guarantees are used to provide more security to a lender that their loan will be repaid.

Polackova's paper on **Government Contingent Liabilities** [#1] defines direct and contingent liabilities, and describes the fiscal risks posed by contingent liabilities in general.

For more information, resources, and examples on these types of payment commitment to PPPs, see the following sections of this Reference Guide: **Module 3, Section 3.3: Structuring PPP Projects** (for risk allocation and payment mechanisms), and **Module 3, Section 3.4: Designing PPP Contracts** (for more detail on payment mechanisms, and termination payment commitments). **Module 1, Section 1.3: How PPPs Are Financed** provides more information on credit enhancements governments may provide for PPPs.

In **Module 1** of this Reference Guide, **Section 1.1.1.2: PPP limitations and pitfalls—lack of fiscal clarity** describes some of the problems that commonly arise when the fiscal implications of PPPs are not carefully addressed and managed. Without specific rules to prevent this, PPPs can be used to bypass budget or borrowing limits. Governments also often underestimate the cost of bearing risk under PPPs, which can result in unsustainable levels of exposure to PPP-related risks.

This chapter provides guidance for practitioners on public financial management for PPPs, to help avoid these pitfalls. The following sections describe how governments can:

- Control fiscal exposure to PPPs
- Budget for fiscal commitments to PPPs
- Reflect fiscal commitments to PPPs in government accounts and reports.

An **IMF publication on Public Investment and Public-Private Partnerships** [#2] provides a helpful set of articles on public financial management for PPPs, including sections on fiscal risks from PPPs, and on PPP accounting, reporting, and auditing. These are referenced in the relevant sections below.

## 2.4.1 Controlling Fiscal Exposure to PPPs

The most important aspect of sound public financial management of PPPs is controlling what fiscal commitments the government accepts. This section describes how governments canassess and limit fiscal commitments under proposed PPP projects and controlaggregate exposure to PPPs.

## 2.4.1.1 Assessing and controlling fiscal commitments to a PPP project

Public investment projects normally need to go through a project appraisal and approval process (to determine whether it is a good project), usually closely integrated with the budget process (determining whether and when the project is affordable). The finance ministry typically plays a central role in this process. Because PPPs often involve neither capital investment nor other expenditure in the short term, they may not be automatically included in these control mechanisms.

Section 2.2.1 describes how governments often create an approval process for PPPs, which mirrors that used for their large investment projects. Such processes generally provide a central role for the finance ministry. This section offers guidance on **how the finance ministry can decide whether to approve the fiscal commitments to a proposed PPP project**. There are normally two questions a finance ministry considers. Will the project provide value for money and is the project affordable?

### Assessing whether a PPP will provide value for money

For most projects, assessing value for money means assessing whether the project is cost-benefit justified, and the least-cost way of achieving the benefits. When assessing a PPP, some additional analysis is needed—to check whether the PPP has been structured well, and will provide better value for money than public procurement. In **Module 3** of this Reference Guide, **Section 3: Appraising PPP Projects** describes this analysis, and provides links to examples and guidance.

### Assessing whether a PPP is affordable

The second question is even harder to answer is the PPP project affordable? There are two main challenges in answering this question for a PPP project.

First, **it is not always clear how much the PPP will cost.** Direct fiscal commitments are long-term, and may depend on variables, such as demand (in the case of shadow tolls), or exchange rates (where payments are made in foreign currency). Moreover, many fiscal commitments to PPPs are contingent liabilities, whose occurrence, timing, and value all depend on some uncertain future events. **Module 3, Section 3.3: Appraising PPP Projects** provides guidance and examples on how the cost of fiscal commitments to a proposed PPP can be calculated. Mostly this involves considering the modal or "best estimate" value, hopefully correcting for optimism bias, and scenarios for how that value might vary.

**Second, because costs are long-term, and may be contingent, it is not easy to decide whether they are affordable**. An **OECD publication on PPPs** [#3, page 36] defines affordability to mean the "ability to be accommodated within the inter-temporal budget constraint of the government". For most government expenditures, affordability is assessed by considering the annual budget constraint, and in some cases the medium-term (typically

three-year) expenditure framework. Table 2.4.1 describes two alternatives for PPPs. The approach may be different for different types of fiscal commitments.

**Table 2.4.1: Options for Assessing the Affordability of Fiscal Commitments to PPPs**

| Option | References and Examples |
|---|---|
| **Forecast budget limits** —that is, make conservative assumptions for how overall budget limits will evolve, and consider whether the estimated annual payments for a PPP (under a reasonable range of scenarios) could be accommodated within those limits | An **OECD survey published in 2008** [described in #3, pages 42-43] found:<br>• In **Brazil**, project studies must include a fiscal analysis for the next ten years<br>• In the **UK**, procuring authorities must demonstrate the affordability of a PPP project based on agreed departmental spending figures for the years available, and on cautious assumptions of departmental spending envelopes thereafter<br>• In **France**, affordability of a PPP is demonstrated by reference to a "ministerial programme"—a multi-year indicative budgeting exercise.<br>The **PPP Manual of South Africa** (2004) section on affordability [#12, pages 34] also describes a similar approach. |
| **Introduce budget rules** that mean the affordability of PPP commitments are considered in the annual budget process | For example:<br>• In the **State of Victoria, Australia**,a department considering a PPP must first seek approval for the capital spending that would be required if the project received public funds—as required in the 2010 PPP Guidelines [#13, page 5] and described in Irwin's review of PPP contingent liability management [#4, pages 10-11]<br>• **Colombia's law on contingent liabilities** (1998) requires implementing agencies to make a cash transfer to a contingency fund when a PPP project is signed. The cash transfer is set equal to the expected value of programs under any revenue guarantees provided (these payments may be phased over several years). This means the decision to accept a contingent liability has an immediate budget impact that must be considered [#14, Article 6] |

Limits on the total stock of fiscal commitments to PPPs may also affect decision-making for particular projects.

## 2.4.1.2 Controlling total exposure to PPPs

As well as considering fiscal exposure project-by-project, some governments introduce targets or rules limiting aggregate exposure. A challenge is defining which types of fiscal commitments should be included—for example, does the rule apply to direct liabilities only, or are contingent liabilities included?

One option is to introduce specific limits on PPP exposure. This approach is described in **Irwin's article on controlling spending commitments in PPPs** [#5, pages 114-115]. For example:

- **Peru's Legislative Decree No. 1012** (2008) [#15, Article 13] states that the present value of the total fiscal commitments to PPPs—firm commitments and measurable contingent

liabilities—shall not exceed 7 percent of GDP. However, every three years, the President may, with the endorsement of the Ministry of the Economy and Finance, issue a decree increasing or decreasing this limit, depending on the infrastructure needs of the country

- In **Hungary**, the **public finance law** limits the total nominal value of multi-year commitments in PPPs to 3 percent of government revenue [Act 38 of 1992, Article 12, quoted in Irwin paper in [#5]
- **Brazil's Federal PPP Law** (Law 11079, 2004) limits total financial commitments undertaken in PPP contracts to a maximum of 1 percent of annual net revenue [#16]. Hemming notes that accounting rules for PPPs are being defined, including the valuation of guarantees and their treatment in relation to this limit.

As Irwin describes, creating PPP-specific limits—distinct from other limits on public expenditure—can simply create incentives for agencies to choose public procurement over PPP even when PPP would provide better value for money (or vice versa). Nonetheless, given the difficulties in deciding whether a particular PPP commitment is affordable, limits on aggregate exposure can be a helpful way to ensure the government's total exposure to PPP costs and risk remains within manageable limits.

An alternative is to incorporate limits on PPP commitments within other fiscal targets. For example, some governments introduce targets or limits on public debt. As described in Section 2.4.2, some types of PPP commitment may be included within measurements of public debt, following international norms or national rules. However, this usually only applies in limited cases. **Irwin** [#5, page 115] describes an alternative of establishing a limit on "debt plus PPP commitments".

## 2.4.2 Budgeting for Government Commitments to PPPs

Budgeting for PPPs involves making sure that money is appropriated and available to pay for whatever cost government has agreed to bear under its PPP projects. Because such cost may be contingent or occur in the future, PPP budgeting can be hard to manage in traditional annual budget cycles. Nevertheless, credible and practical budgeting approaches are needed for good public financial management, and to assure private partners that they will be paid. This section describes how some countries have introduced systems specifically to enable better budgeting for PPP payments, both direct and contingent.

### 2.4.2.1 Budgeting for direct commitments to PPPs

Direct commitments to PPP include upfront payments, as well as ongoing payments such as shadow tolls or availability payments.

When governments provide **upfront payments** to PPPs, the payments required are similar to those for traditionally government-procured projects. Because these payments are typically

made within the first few years of a project, they can be relatively easily built into annual budgets and medium-term expenditure frameworks. Nonetheless, some governments have introduced particular funds (called Viability Gap Funds) from which such payments will be made. One example of such a fund is in India, as described in Box 2.4.2.

**Box 2.4.2: Viability Gap Fund in India**

In July 2005, the Cabinet Committee on Economic Affairs established India's Viability Gap Fund program through its approval of the *Scheme for Financial Support to Public Private Partnerships in Infrastructure*.

The program has been very successful. Twenty-three PPP projects with a total investment of US$3.5 billion have received subsidies or "viability gap funds". An additional 43 projects are under review or have received in principle approval.

The primary objective of India's VGF program is to attract more private investment in infrastructure by making PPP projects financially viable. Dissecting this primary objective reveals three underlying objectives:

- Attracting more private investment to mobilize additional finance and more rapidly meet India's infrastructure needs
- Prioritizing PPP projects to improve efficiencies, control timing and cost, and attract private sector expertise
- Developing projects through an "inclusive" approach that does not neglect geographically or economically disadvantaged regions.

Critically, knowing that the funding is available encourages firms to bid on India's PPP projects. The resulting keen competition has meant that many projects that the government thought might need a subsidy have in fact been fully privately financed, without a VFG contribution being called on.

**How are funds appropriated in the budget?**

An appropriation from the state budget of about US$335 million was used to capitalize India's VGF program.[55]Rather than being disbursed in that year, the appropriation was set aside as a dedicated fund to be managed by the Ministry of Finance. This is a significant amount of capital and, to date, only about half of the amount has been disbursed to PPP projects. It is expected that additional funds will be allocated to the VGF program through further annual appropriations once the initial capital is spent.

VGF for projects in India's National Highway Development Program is appropriated separately. Starting in 2006 a portion of road user tax revenue in the Central Road Fund has been earmarked for viability gap funding. The amount of funds earmarked for VGF is determined annually by the Planning Commission with input from the Ministry of Finance and the Ministry of Shipping, Road Transport, and Highways.

Source: Castalia (2011) Report to the World Bank Institute *Subsidy Funding Mechanisms for Public Private Partnerships in Latin Americ*a

Budgeting for **long-term direct commitments**, such as availability payments, is more challenging. The mismatch between the annual budget appropriation cycle and the multi-year payment commitments exposes the private party to the risk that payments may not be appropriated when due. This problem is not unique to PPPs—many other types of contractual payment commitments may extend beyond the budget year.[55]In many jurisdictions, governments do not introduce any particular budgeting approach for direct, long-term PPP commitments, on the assumption that a responsible legislature will always approve appropriations to meet the government's legally binding payment commitments.

Where appropriations risk is high—typically in systems with a true separation of powers between the legislature and executive—mechanisms to reduce this risk may be warranted. In **Brazil** at the federal level, Law No. 101 of 2000 requires subsidy payments to PPPs to be treated in the same way as debt service payments—that is, they are automatically appropriated.[56] This means that once the subsidy is approved, the appropriations needed are not subject to further legislative approval. Although no federal subsidies have been disbursed yet, this policy should help reduce the likelihood that committed funds are retracted and provides investors with more certainty.

For more on budgeting for direct commitments to PPPs, see the **Castalia and WBI report on fiscal subsidies for PPPs** [#6].The study presents the appropriations mechanisms for Brazil at the Federal and State levels (pages 15-16), Colombia (page 31), Mexico (page 46), and India (page 59).

## 2.4.2.2 Budgeting for PPP contingent liabilities

Budgeting for contingent liabilities can be particularly challenging, because payments may become due unexpectedly. If savings cannot be found within the existing appropriations, government may need to go back to the legislature to request a supplementary appropriation—often a difficult and contentious affair.

To overcome these difficulties, some governments introduce particular mechanisms for budgeting for contingent liabilities under PPP projects. As described in **Cebotari's paper on managing contingent liabilities** [#7, pages 26-28], the first option is to **create additional budget flexibility**. This can include creating a contingency line in the budget from which unexpected payments can be made. A contingency line could be specific to a particular liability—say, those that are considered relatively higher risk—or cover a range of contingent liabilities. **Cebotari** also notes that some countries allow spending in excess of the budget without need for additional approval in certain, defined circumstances.

---

55. Leases for government buildings are an obvious example.

56. *Lei Complementar No. 101* (2000) Articles 29, 30, and 32.

A second option, also described in detail by **Cebotari** [#7, pages 27-29], is to **create a contingent liability fund**. A contingent liability fund (or guarantee fund) is an account (which may be within or external to the government's accounts) to which transfers are made in advance, and from which payments for realized contingent liabilities will be made when due. The following are examples of contingent liability funds for PPPs:

- **Colombia**—Colombia has developed a sophisticated system for managing contingent liabilities arising from guarantees offered to toll road concessions. This system includes assessing the fiscal impact of guarantees before these are granted, and setting aside funds to cover the expected payments from the guarantees [#6, pages 32-33]. A Government Entities Contingent Liabilities Fund, established in 1998, has a special account that is managed by *La Previsora*, a Trust Company. The fund is funded by contributions by the government entities, contributions from the national Budget, and the returns generated with its resources. The government entities carry out the contingent liabilities valuation which is then approved by The Public Credit Divisions of the Ministry of Finance. Once the PPP is approved and implemented, the division carries out ongoing assessments of the value of the associated contingent liabilities [#14, Articles 3-8]

- **São Paulo, Brazil**—In the State of São Paulo, the São Paulo Partnerships Corporation (*Companhia Paulista de Parcerias—CPP*) was established in 2004 using resources from the sale of the government's stake in State Owned Enterprises [#17, Articles 12-23]. Section 5 of State Governor's Decree [#18, Articles 11-12] describes the duties of CPP. The CPP manages its resources as a fiduciary fund provides real and fiduciary guarantees to PPP projects [#18, Article 15].The CPP is managed by a Directorate made up of up to three members selected by the Governor of the State, a Management Council made up of up to five members selected by the Governor of the State, and a fiscal council. The CPPis an independent legal entity (it is a *sociedade de ações*[57]). The Government of the State can add capital to the fund using funds from the sale of shares in state owned companies or government-owned buildings, public debt titles, other goods or rights that are directly or indirectly owned by the Government. A Castalia and WBI review of **Subsidy Funds for PPPs in LAC** [#6, page 16] provides more background about the CPP

- **Indonesia**—Indonesia Infrastructure Guarantee Fund, or IIGF, is a state owned enterprise established by Government Regulation and Ministry of Finance Decree in 2009. As one of the fiscal tools of the Government, IIGF is under direct supervision of the Ministry of Finance and has mandate to provide guarantees forinfrastructure projects under of PPP schemes. IIGF is part of the government's efforts to accelerate infrastructure development in Indonesia, by providing contingency support/guarantee for the risks caused by the government's action or inaction. The Fund operates as a single window for appraising, structuring, and providing guarantees for PPP infrastructure projects. The single window provides certainty because it constitutes a consistent policy for appraising guarantees, a single process for claims, and it introduces transparency and consistency in the process

57. Made up of various shareholders.

which is critical for market confidence. IIGF provides guarantees against specific risks based on private sector demand in a variety of sectors—including power, water, toll roads, railways, bridges, ports, and others.[58]

As well as providing a clear budgeting mechanism and thereby improving credibility, creating a fund can also help control the government's fiscal commitments to PPPs—depending on how the fund is designed. For example, Colombia's approach encourages discipline when deciding what liabilities to accept, as described in **Section 2.4.1: Controlling Fiscal Exposure to PPPs**. Requiring a cash transfer from the implementing agency's budget when a contingent liability is incurred means the decision to accept a contingent liability has an immediate budget impact that must be considered. In Indonesia, the intention is that the government will no longer bear any contingent liabilities under its PPP projects—these will be borne by IIGF based on careful assessment of the risk by these funds' management. In the State of Sao Paulo in Brazil, the contingent liabilities under PPP projects have been borne by the CPP since the PPP Law 11688 was passed in 2004.

## 2.4.3 Fiscal Accounting and Reporting for PPPs

Governments need to account for and report on their financial commitments, including those under PPP contracts. When reporting is done well, it encourages the government to scrutinize its own fiscal position. Making financial reports publicly available enables other interested parties—such as lenders, rating agencies, and the public—to reach an informed opinion on the government's public financial management performance.

Box 2.4.3 briefly describes the three types of government financial accounting and reporting—government financial statistics, government financial statements, and budget documentation and reporting—and the relevant internationally-recognized standards and guidelines that apply in each case. In general, these standards set rules or guidelines for whether and how different kinds of liabilities and expenditures should be **recognized**—that is, formally recorded in the financial statements and statistics, or **disclosed**—that is, reported in notes or narratives. This section briefly describes how these standards apply to PPPs, with some examples of how different countries have interpreted them in practice.

**Box 2.4.3: Types of Government Financial Reporting**

Most governments capture and report financial information in three related frameworks:

- **Government finance statistics**—these are summary statistics on the state of a government's finances, which are intended to be internationally comparable. These statistics may follow regional or international standards, such as those set by Eurostatfor European Union countries, or the **IMF's Government Finance Statistics Manual (GFSM)** published in 2001 [#8]

58. More information about the IIGF is available on its website: *http://www.iigf.co.id/Website/Home.aspx*

- **Government financial statements**—most governments to publish audited financial statements. There are internationally-recognized standards on what should be in those financial statements, although in practice few governments meet those standards. The **International Public Sector Accounting Standards (IPSAS)** is a modified version of the International Financial Reporting Standards (IFRS).IPSAS is designed for use in the public sector, while IFRS applies to companies. Some governments adopt local accounting standards that are a simplified version of the IPSAS standards (for further information see http://www.ipsas.org/en/ipsas_standards.htm)
- **Budget documentation and reporting**—most governments prepare reports on financial performance as part of budget preparation and reporting. These are not subject to any international standards, although there are international guidance materials that promote transparency—for example, the **IMF's Manual on Fiscal Transparency (2007)** [#9] and the **OECD's Best Practices for Budget Transparency (2002)** [#10].

Helpful overview resources on reporting and accounting for PPPs include:

- Part 4: PPP Accounting, Reporting, and Auditing in the collection of **articles published by the IMF on Public Investment and Private Partnerships** [#2]
- An **OECD report on PPPs, value for money, and fiscal risk**, which includes a section on budget scoring and accounting treatment of PPPs [#3, pages 90-105]
- **Cebotari's report on contingent liabilities**, which includes a section on disclosing contingent liabilities [#7, pages 32-41], with practical examples of different countries' approaches, and an annex on the relevant international standards.

## 2.4.3.1 Recognizing PPP liabilities in government accounts

Governments need to decide whether and when PPP commitments should be recognized—that is, formally recorded in financial statements as a liability or expense. This is important because limits or targets are often set on the government's liabilities and expenditures. Whether or not PPP commitments are recognized as expenses or liabilities can therefore influence a government's decision to pursue PPPs, or how to structure them, in a way that is not driven by achieving value for money. **Module 1**, **Section 1.1.1.2: PPP limitations and pitfalls—lack of fiscal clarity** describes how some governments have used PPPs to circumvent limits on liabilities.

The financial standards mentioned in Box 2.4.3 vary in their treatment of PPP fiscal commitments. Two standards specifically address when and how **direct liabilities and assets** of PPP projects should be recognized by the contracting governments:

- **IPSAS Standard 32**—introduced in 2011, IPSAS 32 defines when PPP assets and liabilities should be recognized, assuming agovernment is following IPSAS accrual accounting standards. Under IPSAS 32, PPP assets and liabilities appear on the government's balance sheet, provided (i) the government controls or regulates the services the operator must provide with the PPP asset, to whom, and at what price; and (ii) the government controls any significant residual interest in the asset at the end of the contract. Under this definition, "government-pays" PPPs would appear on the government's balance sheet; the treatment of "user-pays" PPPsis less clear, and may depend on the details of the contract[59] [#19, 20]

- **Eurostat guideline**—before the introduction of IPSAS32, the only standard specifically addressing PPPs was a Eurostat ruling. This ruling requires European governments to recognize PPP liabilities in debt statistics where the government retains both demand and construction risk. Rougemont's article on **Accounting for PPPs—the Eurostat Approach** [#2, pages 256-268] provides more detail. Since most PPPs at least transfer construction risk to the private party, under this rule most PPPs remain off the government's balance sheet.

**Hemming's 2007 article on accounting and reporting issues** [#2, pages 235-244]provides examples of countries that recognize their direct PPP commitments in public accounts and fiscal statistics in practice. As of 2007, the UK recognized PPP obligations based on an assessment of the risk allocation. Australia used rules for financial leases to determine which obligations to recognize the accounts. South Africa was also developing accounting standards for PPPs.

Most accounting and reporting standards do not require governments to recognize **contingent liabilities**, including those arising from accepting risk under PPP contracts. **Cebotari's report on contingent liabilities** [#7, Annex I] describes one limited exception: IPSAS standards for governments implementing accrual accounting require contingent liabilities to be recognized, only if it is more likely that not that the underlying event will occur, and the amount of the obligation can be measured with sufficient reliability. In this case, the net present value of the expected cost of the contingent liability should be recognized as a liability and as an expense (a provision) when the contract is signed.

## 2.4.3.2 Disclosing PPP liabilities

Most international reporting and statistical standards agree that even when PPP commitments are not recognized as liabilities, they should be disclosed in notes to the accounts and reports. For example, an **IMF booklet on Public Investment and PPPs** [#11, pages 14-17] describes what information should be disclosed for PPPs in general, and specific disclosure requirements for guarantees.

---

59. See **Module 1, Section 2: How PPPs are Used** for a definition of "government pays" and "user pays" PPPs. As of January 2012, no government has fully adopted IPSAS standard 32, so it remains to be seen how it will be interpreted in practice.

Disclosing contingent liabilities can be particularly challenging, since it can be difficult to estimate their value. In Module 3 of this Reference Guide, **Section 3.3: Appraising PPP Projects** provides guidance on how the value of contingent liabilities can be estimated. **Cebotari's paper on Government Contingent Liabilities** [#7, pages32-41] describes international guidelines for how contingent liability exposure should be disclosed—including those under PPP programs—and provides examples from several countries.

Cebotari's paper also describes how some countries have interpreted these standards in practice. For example, New Zealand and Australia disclose contingent liabilities—including to PPPs—in notes to financial statements, available online.[60]Since 2007, Chile's Budget Directorate[61] of the Ministry of Finance has published an **annual contingent liabilities report** [#21], which initially presented information on contingent liabilities from revenue and exchange rate guarantees to PPPs. This report has since been expanded to cover other types of government contingent liability

| Key References: Public Financial Management for PPP | | |
|---|---|---|
| **Reference** | | **Description** |
| 1 | Polackova (1998) *Government Contingent Liabilities: A Hidden Risk to Fiscal Stability* World Bank Policy Research Working Paper No. 1989 | This paper provides the conceptual structure used by many subsequent articles to describe different types of government liabilities—distinguishing between contingent and direct liabilities, and explicit and implicit liabilities |
| 2 | Schwartz, Corbacho, and Funke (eds.) (2007) *Public Investment and Public-Private Partnerships*, IMF [available from Palgrave in hard back, ISBN-13 978-0-230-20133-0] | A collection of papers on managing the fiscal impact of PPPs, drawing form an IMF conference held in Budapest in 2007. Part Two: Fiscal Risks from PPPs, and Part Four: PPP Accounting, Reporting, and Auditing are particularly relevant to public financial management for PPPs |
| 3 | OECD (2008) *Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money* Organization for Economic Cooperation and Development [ISBN-9789264042797] | The book identifies best practices for maximizing value-for-money for PPP projects, including accounting for fiscal impacts and affordability. The book also covers issues with regulatory reform, governance, and developing institutional capacity |
| 4 | Irwin and Mokdad (2010) *Managing Contingent Liabilities in Public-Private Partnerships: Practice in Australia, Chile, and South Africa* World Bank / PPIAF | Describes the approach in the State of Victoria, Australia, Chile, and South Africa, to approvals analysis, and reporting of contingent liabilities (and other fiscal obligations) under PPP projects, and draws lessons for other countries |
| 5 | Irwin (2007) *Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects* World Bank | This report covers topics relating to fiscal impacts of PPP projects and provides frameworks to guide policy makers. It offers lessons learned in managing liabilities, direct or contingent, and case studies. |
| 6 | Castalia and WBI (2011) *Subsidy Funding Mechanisms for Public Private Partnerships in Latin America* | The report provides a framework for why subsidies are sometimes needed for PPPs. The report has case studies of PPP subsidy programs in Brazil, Colombia, Mexico, and India |

60. For New Zealand, see http://www.treasury.govt.nz/government/financialstatements; for Australia, see http://www.treasury.gov.au/contentlist.asp?ContentID=519&classification=10&titl=Annual%20Reports.

61. Dipres: Dirección Presupuestaria fromthe Ministerio de Hacienda.

| Key References: Public Financial Management for PPP | | |
|---|---|---|
| **Reference** | | **Description** |
| 7 | Cebotari (2008) *Contingent Liabilities: Issues and Practice* IMF Working Paper WP/08/245 | A seminal paper on managing contingent liabilities, including to PPP projects. Includes case studies to illustrate management challenges and practices from different countries and issues. These case studies also highlight best practices |
| 8 | International Monetary Fund (IMF) (2001) *Government Finance Statistics Manual* | The IMF guidelines on how to report government fiscal statistics |
| 9 | International Monetary Fund (IMF) (2007) *Manual on Fiscal Transparency* | Manual for public sector disclosure of fiscal reporting. The manual provides a framework for responsibilities for transparency, the transparency of the budget process, and openness and integrity of information |
| 10 | OECD (2002) *OECD Best Practices in Budget Transparency* | A tool designed to help countries to increase transparency in their budget process, based on best practices |
| 11 | Akitoby, Hemming, and Schwartz (2007) *Public Investment and Public-Private Partnerships* IMF Economic Issues No. 40 | A short booklet describing the implications of PPPs for public investment, including how PPP commitments should be managed and controlled |
| **Public Financial Management for PPPs Examples** | | |
| 12 | National Treasury PPP Unit (2004) *National Treasury PPP Manual Module 4: PPP Feasibility Study* Government of South Africa | Part 6 "Demonstrate Affordability" describes the methodology and requirements to demonstrate affordability of a PPP project |
| 13 | Partnerships Victoria (2010) *National PPP Guidelines: Partnerships Victoria Requirements Version 2* Treasury Department | These PPP guidelines set out the objectives, principles, and processes for the PPP program in the State of Victoria, Australia. The guidelines highlight the need for a comprehensive test of affordability for the project before project is considered |
| 14 | Congress of Colombia (1998)*Law448 (on managing contingent liabilities of government entities)* | Establishes the Contingent Liabilities Fund, defines where the resources will come from, states how its operative costs will be covered, and describes how it will monitor the contingent liabilities throughout the duration of the project. |
| 15 | President of Peru (2008) *Legislative Decree No. 1012* Presidency of the Republic of Peru | Sets out the entire PPP process (from appraisal to tendering and the implementing the contract), and it also defines the institutional framework for PPPs in infrastructure—this includes defining the role of the Ministry of Finance and the PPP promotion Agency PROINVERSION) |
| 16 | Presidency of the Republic (2004) *Law 11079* National Congress of Brazil *("Federal PPP Law")* | Sets out the tendering process and assigns roles for the Ministry of Finance, the Ministry of Planning, and establishes the Federal PPP Management Council. The law also sets the limits of the government´s financial commitments |
| 17 | Legislative Assembly of the State of São Paulo, Brazil (May 2004) *Law 11688 ("PPP Law")* | Establishes how the CPP is funded, its composition, organizational structure, and its role |
| 18 | Governor of the State of São Paulo (2004) *State Decree 48.867* | Defines in detail the specific duties of the CPP, including the management of the CPP fund |
| 19 | International Public Sector Accounting Standards Board (2011) *IPSAS 32 Service Concession Agreements: Grantor* International Public Sector Accounting Standards Board, Oct. 2011 | Sets out the accounting requirements for the government party to a PPP contract. Specifies when and how PPP assets and liabilities should be recognized as assets and liabilities of the government |

| Key References: Public Financial Management for PPP | | |
|---|---|---|
| Reference | | Description |
| 20 | International Public Sector Accounting Standards Board (2011) *IPSAS 32 At a Glance—Service Concession Agreements: Grantor* International Public Sector Accounting Standards Board | Provides an overview of the IPSAS Standard 32 described above |
| 21 | Dipres (2010) *Informe de Pasivos Contingentes 2010* Government of Chile | Describes the conceptual framework for assessing contingent liabilities and the government's contingent liability exposure in the given year. This includes quantitative information (maximum value and expected cost) on government guarantees to PPP projects (concessions) |

# 2.5. PPP Legal and Regulatory Framework

The "PPP legal and regulatory framework" can be thought of as all the laws and regulations that control whether, or how, PPPs can be implemented. These laws and regulations can include PPP-specific legislation, public financial management laws and regulations, and sector-specific laws and regulations, as summarized in Box 2.5.1.

At a minimum, the PPP legal framework needs to **enable the government to enter PPP contracts**. In most common law countries, this ability is provided by the inherent power of government to contract, so no special laws are needed for this purpose. In many civil law countries, PPP-specific laws are used to empower governments to enter PPP contracts. Under either system, PPP laws may be needed to remove constraints on government contracting and finance imposed by other laws.

The PPP legal and regulatory framework may also **constrain how Government may develop and manage PPP contracts**. PPPs may be subject to general public financial management rules and procedures. Dedicated PPP laws may also be used to establish specific rules for how PPPs will be developed and implemented.

**Box 2.5.1: Components of the Legal and Regulatory Framework**

The PPP legal and regulatory framework can include **specific PPP legislation**. A wide range of other law and regulations can also apply to PPPs, including:

- **Administrative law**—in many civil law countries, government agencies are governed by administrative laws that govern their functions and decision-making process
- **Procurement law**—the transaction process for a PPP must typically comply with public procurement law and regulations, unless PPPs are specifically exempt

- **Public financial management law**—institutional responsibilities, processes, and rules established in public financial management laws and regulations can contribute to the PPP framework. For example, this could include project approval requirements, fiscal limits, budgeting processes, and reporting requirements
- **Sector laws and regulatory frameworks**—PPPs are often implemented in sectors that are already governed by sector-level law and regulatory frameworks. These may constrain the government's ability to contract with the private sector, or provide rules for doing so.
- **Other laws affecting the operation of private firms** also apply to PPP companies, and should be taken into consideration when defining PPP projects and processes. These can include:
- Environmental law and regulations
- Laws and regulations governing land acquisition and ownership
- Licensing requirements, particularly for international firms
- Tax rules
- Employment law.

The following resources provide guidance on assessing and developing the legal and regulatory framework for PPPs:

- **Annex 2 of the EPEC Guide to Guidance** has an overview of legal and regulatory requirements for PPPs in countries with different legal traditions [#1]
- The World Bank has useful online tools for assessing governments' legal environment for PPPsin the **PPP Infrastructure Resource Center** [#2, "Legislative Frameworks"]
- **Farquharson et al.** [#3, pages 16-21] set out "key questions" that investors and lenders are likely to ask about the legal and regulatory framework, and some principles on developing effective frameworks
- The World Bank's online **PPP Toolkit for Roads and Highways** [#4, Module 4] section on "legislative framework" describes the types of enabling law forPPPs, and lists and describes the other laws that typically impact a PPP project in highway infrastructure
- The **United Nations Commission on International Trade Law** has published general recommendations and model legislative provisions for enabling privately financed infrastructure projects [#5].

The remainder of this section describes in more detail two key considerations when establishing the legal and regulatory framework for PPPs. Section 2.5.1 describes and provides examples for why and how some countries have introduced dedicated PPP legislation. Section 2.5.2 describes how PPPs relate to sector-specific law and regulation.

## 2.5.1 Dedicated PPP Legislation

Some countries enact special PPP laws. Whether a PPP law is needed or beneficial typically depends on the country's legal and administrative systems. **In civil law countries**, a law is commonly used empower government to enter PPP contracts, and to resolve other limitations in existing administrative law that may constrain how PPP contracts can be structured or managed. **In common law countries**, a law is often not required to legally enable the government to enter into PPP contracts. Nonetheless, many common law countries adopt PPP laws to address inconsistencies between the proposed PPP policy and existing laws.[62] In certain cases, PPP laws are designed to limit the discretion of the executive branch of government in implementing PPPs and to bolster accountability and credibility of the government's commitment to PPPs, on the basis that a policy may not be as strictly followed as a law.

**Table 2.1: Examples of PPP Framework Documents**, in the introduction to this Module, provides examples of PPP laws and regulations in a range of countries. **Yong** [#6, page 33] summarizes the suggested content of a dedicated PPP law. The **World Bank PPP in Infrastructure Resource Center for Contracts, Law and Regulation** [#2, "Legislation"] provides more information, including summaries of different legislation types (such as general PPP laws, concession laws), sector specific legislation, example provisions, and PPP legislation from over 30 countries.

## 2.5.2 PPPs and Sector Regulation

PPPs often deal with the supply of essential services in monopoly (or near-monopoly) conditions. Monopoly essential service providers are typically regulated by government, to control tariffs and service standards. The main job of this regulation is to protect customers, in particular by limiting the use of market power. Regulation is particularly important in the water, electricity, gas, and telecommunications sectors, and can also be found in other sectors, such as airports or highways. Tariffs and service standards can be controlled by establishing a sector regulatory regime, directly through PPP contracts, or sometimes through a combination of the two.

A "sector regulatory regime" refers to rules and responsibilities, set in laws and regulations,designed to control tariffs and service standards in the sector. Often this includes assigning responsibilities to an independent regulatory agency. Beside governing tariffs and service standards for final consumers, sector regulation may govern the terms on which providers deal with each other, as interconnection regimes do in telecommunications. Regulation may also control entry to the sector through licensing, or govern investment decisions.

An alternative approach to introducing a sector regulatory regime is to define tariffs and service standards directly in a contract with a private provider (usually called "regulation by contract").

---

62. These could include procurement law, public financial management law, privatization law, and sector law and regulations.

When implementing a PPP that involves the private sector providing services to customers in these monopoly sectors, governments need to ensure that the contract, or sector regulatory regime, or both, are effective in protecting customers. Where sector regulation is already in place—or may be considered—the government also needs to ensure this regulation does not conflict with any PPP contract in the sector. Such conflicts cause confusion, and may lead private firms not to bid because of legal uncertainty. Section 2.5.2.1 describes how many governments implement PPPs without a sector regulatory regime. Section 2.5.2.2 describes considerations and experience when implementing PPPs alongside sector regulation.

The **Body of Knowledge on Utility Regulation** (www.regulationbodyofknowledge.org) is an online resource that provides detailed guidance and further reading on a wide range of regulation topics. The following references also discuss regulation in more detail, including how it relates to PPPs:

- **Yong** [#6, section 4.1.3] discusses regulatory frameworks for PPPs. Box 4.4 in this section provides an overview of the different approaches to regulation of infrastructure
- The **Explanatory Notes Series on Key Topics in Regulation of Water and Sanitation Services** [#7] cover a wide range of topics in water sector regulation, including guidance on assigning regulatory functions, and the options of regulation by contract or by an independent agency
- **Eberhard's paper on hybrid and transitional models of regulation in developing countries** [#8] provides an overview of different regulatory models and the advantages and potential pitfalls of each model. The paper also provides recommendations on how to improve the performance of regulatory models
- **Two papers by Ian Alexander** [#9,#10] focus on establishing predetermined rules for committing regulators to future actions, and building confidence in the regulatory system to attract private investors.

## 2.5.2.1 Doing PPPs without a sector regulatory regime

Many governments implement PPPs without creating an overall sector regulatory regime. A common approach to sector regulation is to address tariff and service standards directly through the contract with a private service provider. In this approach, no special tools or regulatory bodies are required. The contract itself sets out the service standards to be reached.

In the case of a concession contract, the contract will also sets out what the tariff is, and rules and processes for adjusting the tariff from time to time. In a lease or affermage contract, tariff setting powers may be retained by the government, but the payment to the operator—which is also linked to the amount of the service supplied—is set in the contract. This approach is used successfully in France, and in many Francophone countries. For example:

- **Urban water concession, Senegal**—in the 1995, the government implemented reforms to bring in private operator under anaffermage and performance contractto improve the performance of the water sector. Provisions within the contracts outlined performance standards and indicators, allowed for monitoring by a committee, and included an effective dispute resolution mechanism. The private operator was legally obliged to meet the standards—such as water quality, access, non-revenue water—set out under the contract [#12]

- **Manila water concessions, Philippines**—when the government of the Philippines decided to end a water crisis in Manila by letting two concession contracts for supply of water in the city, it considered establishing an independent statutory regulator. However, it decided that going to Congress to pass the necessary laws would be too time-consuming and risky. It therefore created a regulatory office for the two concession agreements within the public utility (which remains the asset owner and counterpart to the PPP contract). A clause in the concession agreement required the private operators to "cooperate" with the regulatory office, which in turn was responsible for interpreting the regulations in the agreements [#12]

- **The Bucharest water concession, Romania** also provides an interesting example of a regulatory structure created under contract. The concession had two different regulatory bodies—a technical regulator and an economic regulator. The technical regulator was created for the specific purpose of monitoring the technical performance of the private operator against the indicators set out under the concession contract. The economic regulator, a national government agency, approved tariff adjustments according to the formula set out by the concession contract.[63]

- For further discussion of issues specific to "regulation by contract" and case studies, refer to **Regulation by Contract: A New Way to Privatize Electricity Distribution?** [#11] and **Explanatory Notes Series on Key Topics in Regulation of Water and Sanitation Services** [#7].

## 2.5.2.2 Doing PPPs with a sector regulatory regime

Some countries decide to establish sector regulatory regimes when introducing a PPP for service provision in a sector. In other cases, sector regulation may already be in place. In either case, the PPP agreement and sector regulation will need to be carefully harmonized—this could require changes to pre-existing sector regulation. For example:

- **Vanuatu** has had concession contracts governing the private supply electricity in urban areas of the islands since the 1940s. For decades these contracts were enforced directly by the relevant government ministry. However the government became concerned that

63. Erhardt, Rekas, and Tonizzo (Castalia) (2010) *Evaluation of the Bucharest Water and Wastewater Concession-Final Report to the IFC.*

it lacked the capacity to monitor and enforce the contracts adequately. It also wanted to increase the transparency and popular legitimacy of its oversight of the electricity providers. Therefore, in 2008 it passed the Utilities Regulatory Authority Act No. 11 of 2007, which created a new Authority regulate both the electricity and water sectors[64]

- **In Colombia, the municipality of Monteria** concluded a new concession contract with a private firm in 1999. Colombia's water regulatory authority, the CRA is responsible for rules governing tariff setting and service standards in the sector. So far there has not been a conflict between the rules established in the concession contract and the rules established by the national regulation, but there is a risk that such a conflict could arise in the future [#12].

The risks of having rules set in PPP contracts that conflict with decisions made under sector regulation are obvious. Not only will there be dispute and acrimony about which is to prevail, but the legal risk will likely lead private firms not to bid on the PPP opportunity in the first place. To resolve this problem, governments could choose either to exempt the PPP contract from some or all provisions of sector regulation, or to leave tariff and service standards for the PPP to the sector regulator. A fallback option is for the PPP contract to provide for the government to compensate the private firm in the event that regulatory decisions are inconsistent with the terms of the contract.

Finally, where sector regulatory regimes are already in place, their requirements can also affect PPPs that do not involve providing services directly to customers. Government will need to check that the proposed PPP project can get licensing and investment approvals under the existing regime—a coordination problem can arise when these are decided on by an independent regulator. For example, in the **power sector in Jamaica** this issue is resolved by having the Office of Utilities Regulation run the tender process for any new IPPs. Licensing and investment approval are thereby easily bundled in with selection of the winning bid and award of the contract.[65]

| Key References: PPP Legal and Regulatory Frameworks | | |
|---|---|---|
| **Reference** | | **Description** |
| 1 | European PPP Expertise Center (2011) *The Guide to Guidance: How to Prepare, Procure, and Deliver PPP Projects* European Investment Bank | A guide and sourcebook for PPP policies and project implementation. Annex 2: A Note on Legal Frameworks for PPPs describes typical legal and regulatory requirements for PPPs, in countries with different legal traditions |
| 2 | **PPP Resource Center (2011)***PPP in Infrastructure Resource Center for Contracts, Law and Regulation* World Bank | "Legislation" section includes information and questions for assessing legal environments for PPPs, information on types of legislation, and example PPP legislation from over 30 countries |

64. Government of Vanuatu (2007) *Utilities Regulatory Authority Act No. 11 of 2007.*

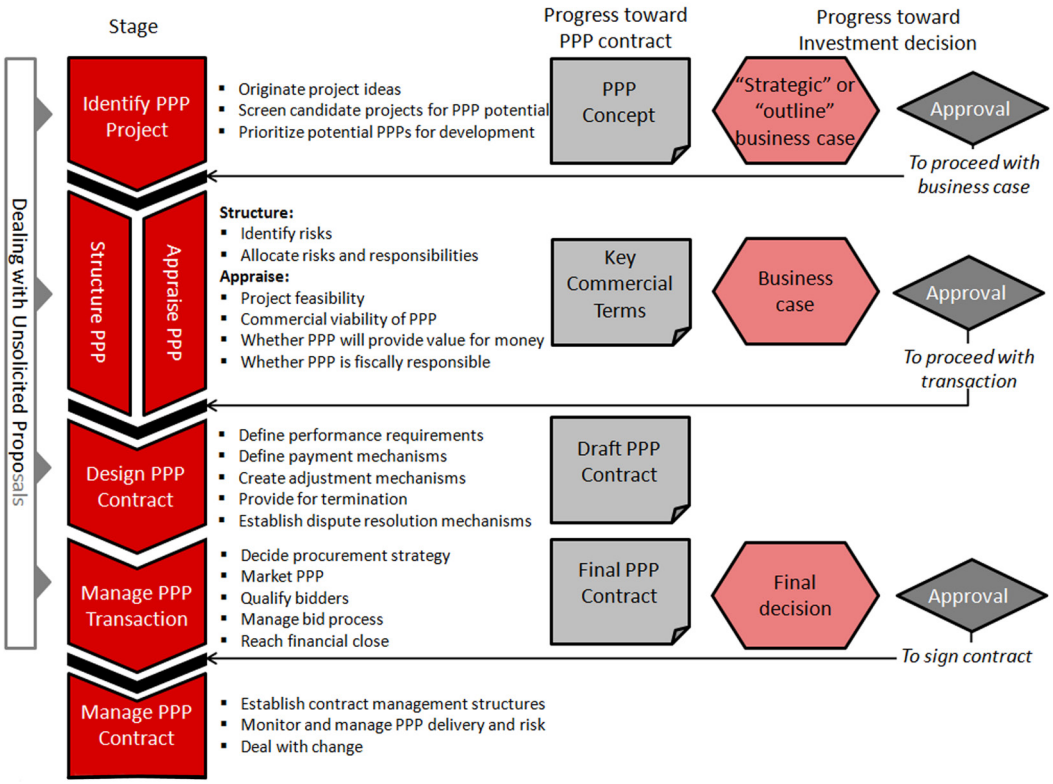
65. *Regulatory Policy for Electricity Sector: Guidelines for the Addition of Generating Capacity to the Public Electricity Supply System*, Sections 1-4, Office of Utilities Regulation, 2006. The independent power projects in Jamaica are not strictly public-private partnerships, because the power purchase agreement is with the majority-privately owned Jamaica Public service Company. However the same regime could work well for a regulated public utility.

| Key References: PPP Legal and Regulatory Frameworks | | |
|---|---|---|
| | **Reference** | **Description** |
| 3 | Farquharson, Torres de Mästle,and Yescombe,with Encinas(2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets* PPIAF, World Bank | This guide for public sector practitioners describes how to develop and implement a PPP successfully, by developing a marketable project and attracting the right private partners. Chapter 3 provides a review of PPP legal and regulatory frameworks |
| 4 | PPIAF (2009) *Online Toolkit for Public Private Partnerships in Roads and Highways* World Bank | Module 4 on Laws and Contracts section of the online toolkit on "Legislative Framework" describes the various types of laws that comprise the framework for PPPs in roads |
| 5 | UNCITRAL (2004) *Model Legislative Provisions on Privately Financed Infrastructure Projects* United Nations Commission on International Trade Law | This report by the UN offers legislative recommendations and model provisions for PPP legislation that are favorable to privately financed infrastructure projects |
| 6 | Yong (ed.) (2010) *Public-Private Partnerships Policy and Practice: A Reference Guide* Commonwealth Secretariat [ISBN No: 978-1-84929-020-3] | This report provides a comprehensive review of PPP policies worldwide, including guidance to practitioners about key aspects of designing and implementing PPP policy and projects. Chapter 4.1 outlines key issues for a PPP legal framework, and principles for PPP legislation |
| 7 | Groom, Halpern, and Ehrhardt (2006) *Explanatory Notes on Key Topics in the Regulation of Water and Sanitation Services* Paper No.6, June 2006 The World Bank | A series of notes covering topics related to governance of infrastructure, with particular focus on water and sanitation. The topics include a conceptual framework for regulation, design of regulation, institutional arrangements, regulation by contract, regulating government-owned utilities, and regulation of wastewater in developing countries |
| 8 | Eberhard (2007) *Infrastructure Regulation in Developing Countries: An Exploration of Hybrid and Transitional Models* Working Paper No.4, Public-Private Infrastructure Advisory Facility (PPIAF) | Provides an overview of different regulatory models and the advantages and potential pitfalls of each model. The paper also provides recommendations on how to improve the performance of regulatory models |
| 9 | Alexander (2008) *Regulatory Certainty Through Committing to Explicit Rules – What, Why and How?* Paper based on a presentation made at the 5th Annual Forum of Utility Regulators (AFUR) conference | Focuses on the establishment of predetermined rules committing regulators to future actions |
| 10 | Alexander (2007) *Improving the Balance Between Regulatory Independence, Accountability, Decision-making and Performance* Paper prepared for Fourth Annual Meeting and Conference, African Forum for Utility Regulation (AFUR) (2007). | Focuses on the importance of investor confidence in the regulatory regime |
| 11 | Bakovic, Tenenbaumand and Woolf *Regulation by Contract: A New Way to Privatize Electricity Distribution?* World Bank Working Paper No.14, World Bank | Describes the key features of "regulation by contract"; how different countries have handled some key regulatory issues through this mechanism; describes the strengths and weaknesses of different approaches, drawing on international experience |
| 12 | Castalia (2005) *Case Studies on Water and Sanitation Sector Economic Regulation* Report to the World Bank | Presents four detailed case studies of the water sector in the Philippines, Colombia, Vanuatu, and Senegal—all cases where PPPs have been implemented, under different overall regulatory approaches. A note on "themes from four case studies" draws on the cases to provide guidance applicable to other governments |

# Module 3: Implementing PPP Projects

This module provides guidance on each stage of developing and implementing a PPP project—from initially identifying candidate projects, to managing PPP contracts through the project lifetime. **Module 2**, **Section 2.2.1: Establishing the PPP Process** introduced the overall PPP development and implementation process, also shown in Figure 3.1. This module describes each stage in the PPP process in more detail, providing links to resources, tools, and further guidance for PPP practitioners.

**Figure 3.1: PPP Development and Implementation Process**




Governments only want to develop "good" PPP projects—that is, PPPs for projects that are cost-benefit justified, where the PPP provides better value for money than traditional public procurement, and is fiscally responsible (see **Box 3.2.1: PPP Project Appraisal Criteria**) However, whether a project meets all these criteria cannot be fully assessed until the project is fully designed, and cannot be confirmed until bids are received. This creates a Catch 22 situation— the government does not want to incur the considerable costs of developing a PPP unless it knows the project meets the criteria, but cannot tell if it meets the criteria until the project has been developed.

Successful PPP programs tackle this problem through an iterative approach, of progressively more rigorous screening at successive stages of project development. The idea is that projects must seem likely to be suitable for development as a PPP before any public money is spent on them. Then, the processes of preparation is broken into successively more intensive and expensive phases, with a check before each phase that it seems likely that the project will continue to meet the criteria required for all successful PPPs.

This module describes this iterative process for developing a PPP, as follows

- **Project origination and screening**—the process starts with project origination, typically following the same or a similar process as for originating public sector investment projects, while screening projects for their potential suitability as PPPs. Screening at this stage is usually indicative, limited to the information available at relatively low cost
- Candidate projects that survive the "screening" are then **developed** and **appraised**. Again, this is an iterative, or multi-stage, process—hence appraisal and structuring are shown in parallel in Figure 3.1 above. Because appraisal and structuring are different things conceptually, the Reference Guide discusses first one (Section 3.2 on appraisal) and then the other (Section 3.3 on structuring). In reality, projects will typically be partially structured, then partially appraised, then more fully structured, and more fully appraised. Different countries break up these iterative steps differently. The end result, often called a "Business Case", is typically the basis for approval to proceed with the PPP transaction
- Before the PPP transaction can be implemented, the **draft PPP contract needs to be prepared**—further refining the PPP structure by setting out its details, in appropriate legal language. Section 3.4 sets out some key elements of PPP contract design
- **Managing a PPP transaction** is a complex process. A well-designed and well-implemented procurement is central to achieving value for money from the PPP. As described in Section 3.5, this can include marketing the PPP, checking the qualifications of bidders, inviting and evaluating proposals, interacting with bidders during the process, and identifying and finalizing the contract with the selected bidder. At the end of the transaction, after bids are received and the contract agreed, government will finally know the cost and risks in the PPP project. At this point it may be checked once more to ensure it still meets the PPP criteria
- As an alternative approach to originating and developing PPP project ideas, some governments accept **unsolicited proposals** for PPP projects from private companies, as described in Section 3.6
- Finally, having executed the contract, the PPP enters the final and longest "stage"—**managing the contract** throughout its lifetime, as described in Section 3.7.

This guidance module is far from an exhaustive resource—developing a PPP is a complex process and every project has vagaries. Public officials should hire experienced advisors

when implementing a PPP project. The **World Bank toolkit for hiring advisors for PPP in infrastructure**[66] provides extensive guidance on engaging and managing advisors.
Overall guidance on implementing PPP Projects

As described in **Module 2**, some governments develop detailed guidance material or manuals for PPP practitioners. The World Bank and other multilateral institutions have also published guidance material and toolkits on developing and implementing PPP projects, including sector-specific materials.

The table below lists some of the best PPP guidance documents published by governments with successful PPP programs, and by multilateral organizations. The relevant sections of these manuals are included as "further resources" for each PPP stage in the sections below.

| Key References: PPP Legal and Regulatory Frameworks | | |
|---|---|---|
| **Reference** | | **Description** |
| **PPP Program Material** | | |
| 1 | Infrastructure Australia (2011) *National PPP Guidelines volume 2: Practitioners' Guide*, Commonwealth of Australia | Detailed guidance material for implementing agencies on how to implement PPP projects under the national PPP policy, including project identification, appraisal, PPP structuring, the tender process, and contract management. Includes detailed guidance in annexes on technical subjects |
| 2 | Government of Colombia (2010) *Manual de Procesos y Procedimientos para la ejecución de Asociaciones Público – Privadas* (*Process and Procedures Manual for PPP Projects)* Ministerio de Hacienda y Credito Publico – Subdireccion de Banca de Inversion | A guide for civil servants from national, regional and local governments. It sets out in detail the processes and requirements for identifying, assessing, preparing, tendering, and implementing PPP contracts |
| 3 | Ministry of Finance, Government of India (2011) *PPP Toolkit for Improving PPP Decision-Making Processes*, Department of Economic Affairs, Ministry of Finance, Government of India | Online toolkit describing PPP process and providing sector-specific guidance and tools for practitioners on all stages of managing a PPP |
| 4 | Government of Rio de Janeiro (2008) *Manual de Parcerias* | A guide for civil servants of the State of Rio de Janeiro on developing and implementing PPP. Defines PPPs, and provides guidance on drafting a preliminary proposal, carrying out detailed technical studies, managing the tender, and managing the contract |
| 5 | National Treasury, PPP Unit (2004) *Public Private Partnership Manual,* Government of South Africa | Manual for implementing agencies setting out in detail the process and requirements for developing and implementing PPPs in accordance with the national PPP regulation. Includes modules on PPP Inception, the PPP Feasibility Study, PPP Procurement, and Managing the PPP Agreement. Includes tools and templates in annexes for use at each stage |

66. Available online at: http://rru.worldbank.org/Documents/Toolkits/hiringadvisors_fulltoolkit.pdf.

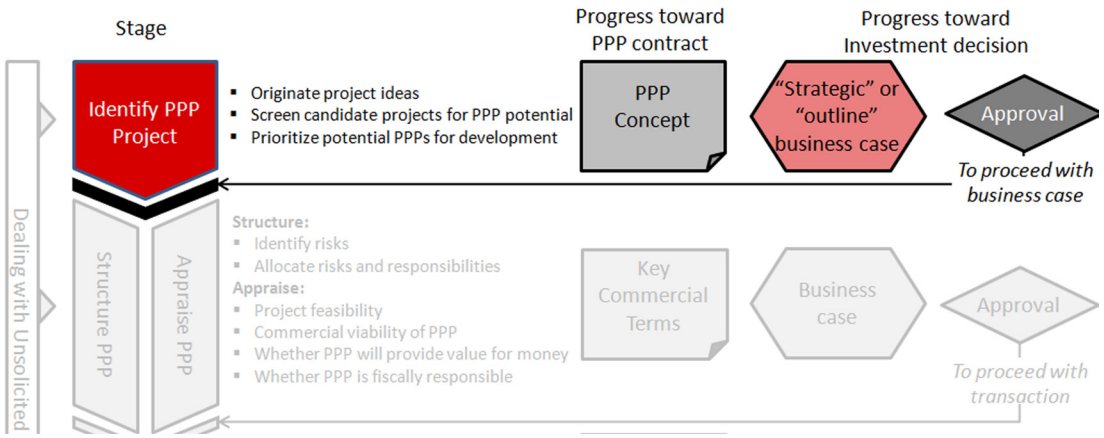
| Key References: PPP Legal and Regulatory Frameworks | | |
|---|---|---|
| Reference | | Description |
| Other Guidance Material and Toolkits | | |
| 6 | Kerf, Gray, Irwin, Levesque, and Taylor, under the direction of Michael Klein (1998) *Concessions for Infrastructure: A guide to their design and award*, World Bank Technical paper no. 399, World Bank and Inter-American Development Bank | Describes and provides examples on several of the important steps in developing and implementing PPPs—focusing on user-pays PPPs, or concessions. Includes sections on detailed design, the tender process, and the institutional (regulatory) structure for contract management |
| 7 | Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets*, PPIAF, World Bank | Describes and provides guidance on the whole PPP process, highlighting the experience of developing countries. Briefly covers project selection; the focus is on preparing and bringing the project to market, and engaging with the private sector |
| 8 | PPIAF (2009) *Online Toolkit for Public Private Partnerships in Roads and Highways*, World Bank | Module 5: Implementation and Monitoring provides guidance and links to further material on project identification, feasibility studies and analysis, procurement, contract award, and contract management |
| 9 | World Bank and PPIAF (2006) *Approaches to Private Participation in Water Services: A Toolkit* | Provides guidance on the PPP process, from planning and upstream policy, to the detail of structuring a PPP and implementing a transaction. Focus is on user-pays PPPs in the water sector |
| 10 | World Bank and PPIAF (2007) *Port Reform Toolkit Second Edition* | Provides guidance on several aspects of PPPs in the port sector—including guidance on risk identification, financial analysis, contract structuring, and contract management approaches |

# 3.1. Identifying PPP Projects

This section describes how governments can identify projects that may be candidates for PPPs. The aim at this stage is to choose those projects that are most likely to be implemented successfully as PPPs, given the limited information available at this early point in the PPP process.

The starting point in originating PPP project ideas may be the broader infrastructure or sector planning process, or a strategic assessment of where PPPs may add most value. There are then several factors to consider when screening projects for their potential to achieve better value for money if implemented as a PPP. Limited resources mean that not all potential PPPs can be developed at once—governments must prioritize which projects will be taken forward to the next stage of development. The **online toolkit for PPPs in India** [#1] provides a good overview of PPP project identification.

**Figure 3.1.1: Identifying PPP Projects**




As shown in Figure 3.1.1: Identifying PPP Projects, the output of the project identification stage is typically a PPP concept, and an initial assessment (sometimes called a strategic, or outline business case) of the rationale for pursuing the project as a PPP. In many countries this must be formally approved before continuing to develop the PPP further.

## 3.1.1 Project Origination

Ideas for PPP projects need to come from somewhere. This could include building PPP project origination into public sector planning and project selection processes—which could initially require building the capacity of those responsible for identifying sector needs to understand how PPPs can be used. Central agencies may also propose PPP programs as part of an overall shift in how public services are provided, or as an instrument of reform for an under-performing sector. Examples of these various approaches are given below.

### PPP origination as part of public sector planning and project selection processes

Many PPP ideas originate as part of the overall public sector planning, policy-setting, and project selection process. The process of originating infrastructure project ideas—and so how PPPs can be integrated into that process—differs between countries.

It could include the following:

- **Public sector planning process**. The starting point for identifying PPPs may be a national, regional, infrastructure, or sector-level planning process. For example, in **Colombia**,

each new government administration creates a National Development Plan. One of the preliminary documents that the implementing agency must provide to the PPP Unit to initiate the PPP process is a report demonstrating that the project is in line with this plan [#2, page 34]

- **Infrastructure gap analysis**. Some countries that do not undertake comprehensive planning processes nevertheless develop infrastructure gap analyses, identifying service shortfalls and investment needs in a sector, as a way to identify investment projects. These reports often also show that public finance and procurement methods will not be able to close the infrastructure deficit—thereby helping make the case that alternative finance and procurement methods are needed. **Box 3.1.1** describes how infrastructure gap analysis is used in **Peru**

- **Policy-driven project selection**. Many countries do not follow an overall, coordinated planning process, instead generating project ideas on a project-by-project basis, driven by policy priorities. These projects can then be considered for suitability for PPP. For example, in the **State of Victoria, Australia**, PPP projects must initially go through the usual selection process for, and be included in the Budget as, public investment projects. Those with PPP potential are then chosen to enter the PPP process[67]. The **South Africa PPP manual** [#4 Module 4 Pages 1-13] also sets out the process of "needs analysis and options assessment" as the first stages of establishing the feasibility of any project—suitability for PPP is one of the factors that should then be considered by responsible agencies when analyzing "solution options".

In countries with relatively new PPP programs, this often means sifting through the various project concepts already generated by sector agencies, and screening these projects for PPP potential using the approach described in **Section 3.1.2**. Under new PPP programs sector agencies often need support—and may need prompting—to overcome initial unfamiliarity or reluctance to adopt PPPs.[68] This can be among the roles of a central PPP unit, as described in **Module 2** of this Reference Guide, **Section 2.2.3: Establishing a PPP Unit**.

Developing a PPP and running a PPP transaction is often more expensive than the equivalent process for a traditional public investment project, which can also deter agencies from identifying PPPs. Providing additional funds for PPP project development can help level this playing ground. For example, the **India Infrastructure Project Development Fund** [#5] was established as a revolving fund, and can fund up to 75 percent of PPP project development expenses.

---

67. As described in Irwin and Mokdad (2010) *Managing Contingent Liabilities in Public-Private Partnerships: Practice in Australia, Chile, and South Africa* World Bank / PPIAF.

68. Indonesia's experience in this regard is described in Castalia (2010) *Indonesia's PPP Program: Recommendations for Success in 2010-14 and Beyond* Report to the World Bank Institute.

**Box 3.1.1: Infrastructure Gap Analysis in Peru**

In **Peru**, **Presidential Decree 104 (2007)** states that project identification should be carried out by the contracting agency—ministry, regional or local government—based on a public services analysis showing a gap between demand and supply in terms of quality and coverage. Once this gap is precisely defined, the contracting agency must make sure that the project is within the national, sectoral, regional, and local priorities.

The Ministry of Finance has developed guidelines for this "infrastructure gap" approach. **Guidelines for identifying and evaluating public investment projects** [#6, pages 15-46] set out the steps to be followed. These steps include: situation analysis, identifying the causes and effects of the problem; set out the intermediate and final objectives of the project, and identify alternative solutions to the problem.

**Legislative Decree No. 1012 (2008)** article 7 then states that the contracting agency set the levels of service / performance levels that they expect based on an assessment of the current situation and the national, sectoral, regional or local priorities.

## Strategic approach to private sector participation in public services

In some cases, governments may take a more **top-down, strategic approach** to originating PPP ideas—considering where PPPs are likely to add most value, and then working with the relevant sectors to choose specific projects. This could include using PPPs for existing assets as part of an overall privatization strategy, as is the case with **Jamaica's 2011 PPP and Privatization Policy.**[69] It could also mean introducing PPP in the context of considering overall sector reform for an under-performing sector, as described in the **ADB's PPP Handbook** chapter on sector diagnostic analysis [#7, Chapter 3].

## Origination by businesses

Businesses often see PPP opportunities that government agencies may miss. For this reason, many successful PPP programs provide ways in which businesses and other non-government entities may originate projects, for consideration by government. At the same time, encouraging business to suggest ideas needs to be balanced by needs for competition and transparency. How this can best be done is addressed in **Section 6: Dealing with Unsolicited Proposals**.

69. See for example Arana (2011) *The Government of Jamaica's Privatization Programme*, a presentation at the Third Annual United Kingdom-Jamaica Investment Form of March 2011, available at: http://www.developingmarkets.com/dma/wp-content/uploads/2011/03/denise-arana.pdf.

## 3.1.2 Screening Candidate Projects

The various project ideas, originated as described in Section 3.1.1, may or may not be suitable for development as PPPs. Many governments define criteria for what makes a "good" PPP project, as described in **Box 3.2.1: PPP Project Appraisal Criteria**. These criteria typically include ensuring the project is technically feasible and economically viable, that it can be delivered as a commercially viable PPP, that the PPP will provide value for money compared to the other options, and that the PPP is fiscally responsible.

Candidate projects can be screened by assessing whether—given the limited information available—the project appears to have a good chance of meeting those criteria and going on to be developed and implemented successfully as PPPs.

Screening typically requires **technical "pre-feasibility" analysis of the project**, to just enough depth to guide a decision to proceed further. For example, this may include identifying major legal barriers or technical risks that could mean the project seems unlikely to be viable, rather than undertaking a comprehensive legal or risk assessment. **India's PPP online toolkit** [#1] lists typical content of "pre-feasibility" analyses at the following link: http://toolkit.pppinindia.com/solid-waste-management/module2-pfcaa.php?links=pfcaa1. Similarly, while screening will typically not involve a full cost-benefit analysis, there may be a check to ensure that there is reason to believe that it would be economically viable.

Having established as far as possible that the project makes sense at all, the second question is whether it has **potential for to be implemented as and achieve value for money as a PPP**. Many governments introduce criteria or checklists for PPP potential, against which projects can be compared. **Box 3.1.1** provides an example of such a checklist, from the South Africa PPP Manual [#4]. Similar criteria may be also used for more detailed appraisal in the following stage—at the screening stage, the idea is to check if they are sufficiently likely to be met for the project to proceed to the next level of development.

**Box 3.1.2: PPP Potential Screening Factors in South Africa**

The South Africa PPP Manual lists the following, as factors to consider when deciding whether a project could achieve value for money as a PPP:

**Scale of the project**—are transaction costs likely to be justified? In **Module 2** of this Reference Guide, **Section 2.2.1: PPP Policy** describes how some governments set a minimum size for their PPP projects

**Outputs capable of clear specification**—is there reason to believe we can write a contract that will hold provider accountable

**Opportunities for risk transfer** (and other PPP value drivers)—is there good reason to believe that a PPP will provide value for money compared to the alternative of traditional public procurement? That is: to achieve appropriate risk allocation—so risks are largely allocated to the party best able to control or bear them—and capitalize on the PPP value drivers set out in **Module 1, Box 1.1.1: PPP Value Drivers**

**Market capability and appetite**—is there a potentially viable commercial project and a level of market interest in the project? Assessing market appetite may require initial market sounding with potential investors.

Source: South Africa PPP Manual [#4, Module 4 page 13].

Fiscal screening is also likely to make sense at this point. Full fiscal appraisal is addressed in **Section 3.2.4: Assessing Fiscal Implications**. Two aspects of the fiscal impact are important to check at this stage. The first is the total "viability gap"—that is, the present value of the shortfall between expected revenues and project costs, which is the total fiscal support that would be needed to make the project financially viable. This could be estimated from simple financial analysis based on available information and reasonable assumptions. Checking this figure against budget priorities helps ensure the project is fiscally realistic. Secondly, the implementing agency can also consider any major risks that is it unlikely that private parties would accept—for example, this could include geotechnical, or significant demand risk—and consider whether the government would be prepared to bear these risks, to enable the project to proceed.

The following resources provide further suggestions and guidance on the factors to take into account when screening potential PPP projects:

- **India's online PPP toolkit** [#1] includes a "suitability filter" that guides the user to consider the factors described in **Box 3.1.1**, as well as the supportiveness of the public sector environment (including an assessment of the public sector capacities to implement the project as a PPP); the existence of potential barriers to project implementation (based on information from the pre-feasibility study), and other factors such as the expected effort and resources needed to develop the PPP (for example, whether standard contracts are already available)

- In **Colombia**, the implementing agency must present an Executive Report to the PPP Unit requesting authorization to implement the project as a PPP. The analysis in this report—such as pre-feasibility analysis—is described in the **PPP Manual** [#2, pages 34-38]. The PPP Unit then assesses the report by applying a Project Eligibility Index, as described in the **Finance Ministry's technical note on eligibility analysis** [#3] The index measures the "necessary conditions" for implementing a project as PPP, which include: the organizational and functional capacity of the implementing agency to structure a PPP project, likelihood of attracting competent partners, risk, project size and duration, urgency, and stakeholder views. The document also presents the questions that the implementing agency must answer to generate the information that the PPP Unit will need to apply the eligibility index

- **Jamaica's draft PPP Procedures Manual** [#8, pages 11-16] describes the "PPP criteria" with which all projects must comply, and how a project can be assessed against these criteria at the initial screening stage

- The Government of **Hong Kong's Guide to PPPs** [#9, pages 31-32] describes a list of criteria that a PPP should meet at the initial screening stage (or "stage one business case"), to be considered as having a prima facie case for implementation as a PPP.

## 3.1.3 Prioritizing PPPs for Further Development

Having identified projects that hold potential as PPPs, practitioners need to prioritize these projects for further development and implementation—bearing in mind that human and financial resources available for project development are likely limited.

Several factors may feed into this prioritization. For example, the **Philippines PPP Center**[70] notes that projects in its PPP program pipeline (on its "PPP List") were selected based on the following criteria:

- **Project readiness and stage of preparation**—some projects have been further developed than others before being proposed as PPPs, reducing the remaining project development cost
- **Responsiveness to the sector's needs**—the order of implementation of PPP projects needs to be aligned with overall sector priorities within the strategic plan—in other words, PPPs should be central to the development of the sector, not peripheral projects whose benefits may turn out to be marginal, or which may distract from strategic priorities
- **High "implementability"**—prioritizing PPP projects with a high likelihood of success, that are considered most likely to attract private sector interest, and for which there is a precedent in the local or regional market.

In an interview with the Reason Foundation, the Director of the **Puerto Rico PPP Authority**[71] also describes how the Authority initially prioritized PPP projects that were most ready to go to market, and that corresponded with overall policy priorities (such as brownfield school PPPs). **Jamaica's draft PPP Procedures Manual** [#8, pages 36-38] provides an example matrix as a tool for prioritizing potential projects, which considers similar factors: the project's cost, readiness, complexity, fiscal impact, investor interest, and priority in pursuing the government's policy goals.

The outcome of this process would be a pipeline of PPP projects, set in the context of an overall infrastructure and sector strategic plan. Making this PPP pipeline public can be a good way to build private sector interest in investing in PPPs in a country. **Farquharson et al** describe the advantages of defining the "investment framework" for a PPP program—including the PPP pipeline, and the complementary other planned infrastructure investments [#10, page 21-22].

70. As described on the PPP Center website at the following link: http://ppp.gov.ph/ppp-center/about-the-ppp-center/.

71. Transcript available at the following link: http://reason.org/news/show/puerto-rico-ppp-infrastructure.

| Key References: Identifying Candidate Projects | | |
|---|---|---|
| **Reference** | | **Description** |
| 1 | Ministry of Finance, Government of India (2011) *PPP Toolkit for Improving PPP Decision-Making Processes*, Department of Economic Affairs, Ministry of Finance, Government of India | Module 2: Work through the PPP process, Phase 1: Identification provides extensive guidance on identifying PPP projects |
| 2 | Government of Colombia (2010) *Manual de Procesos y Procedimientos para la ejecución de Asociación Público Asociaciones Público – Privadas* (*Process and Procedures Manual for PPP Projects)* Ministerio de Hacienda y Credito Publico – Subdireccion de Banca de Inversion | Describes (on pages 34-38) the information that an implementing agency must include in its initial report to the PPP Unit requesting that a project be implemented as a PPP |
| 3 | Ministry of Finance and Public Credit, Government of Colombia (2010) *Análisis de Elegibilidad para la Preselección de Proyectos de APP* (*Eligibility Analysis for Preselection of PPP Projects)* | Defines the PPP eligibility index, describes the general eligibility criteria, and presents 23 questions that must be answered by the implementing agency in order to assess the eligibility of the project to be implemented as a PPP |
| 4 | National Treasury, PPP Unit, Government of South Africa (2004) *Public Private Partnership Manual, Module 4: PPP Feasibility Study*, Government of South Africa | Module 4: PPP Feasibility Study describes "needs analysis" and "options analysis" as the first two stages of carrying out a feasibility study to "decide whether conventional public procurement of a PPP is the best choice for the proposed project" |
| 5 | Government of India, Ministry of Finance Department of Economic Affairs (2008) *Scheme and Guidelines for India Infrastructure Project Development Fund*, *India Infrastructure Project Development Fund (IIPDF)* | Describes the rationale for establishing the IIPDF, to overcome barriers to PPP project identification, and the structure and operational arrangements for the fund. |
| 6 | Government of Perú, Ministerio de Economía y Finanzas (undated) *Pautas para la Identificación, formulación y evaluación social de proyectos de inversión pública, a nivel de perfil (Guidelines for the Identification, Formulation, and Social Evaluation of Public Investment Projects)* | Module 2: Identification sets out the "gap analysis" approach to identifying investment needs and projects |
| 7 | Asian Development Bank (ADB) (2008) *Public-Private Partnership (PPP) Handbook* | Chapter 3: Structuring a PPP: Sector Diagnostic and Sector Road Map sets out how identifying possible PPPs can be part of an overall strategic review of a sector |
| **8** | Government of Jamaica (Forthcoming) *Draft PPP Procedures Manual* | The "PPP criteria chart" on pages 11-16 sets out how the PPP eligibility criteria should be assessed, including at the screening stage. Section 5: Project Identification describes in more detail, and provides tools for, how PPP projects can be identified, screened, and prioritized. |
| **9** | Government of Hong Kong Efficiency Unit (2008) *An Introductory Guide to Public Private Partnerships (PPPs)* Second Edition | The first section of Chapter 4 "making the business case" sets out the criteria that a project should meet to have a "prima facie" case for being implemented as a PPP |
| **10** | Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets*, PPIAF, World Bank | The section on developing a PPP "Investment Framework" on pages 21-23 describes the importance of building a PPP project pipeline, together with clear public sector investment plans |

# 3.2. Appraising PPP Projects

Appraising a PPP project means checking it makes sense to develop the project, and to implement it as a PPP. Many successful PPP programs establish PPP "appraisal criteria"—these are the criteria used to decide whether or not a project "makes sense". As **Box 3.2.1** sets out, typically appraisal criteria require at least four questions to be addressed: Does the project make sense at all—that is does it meet standard project appraisal criteria such being technically feasible and cost-benefit justified? Is the PPP opportunity commercially attractive to the market? Will the project deliver more value for money if done as a PPP than under conventional procurement? Is the project fiscally responsible?

**Box 3.2.1: PPP Project Appraisal Criteria**

In deciding whether to pursue a project as a PPP, governments need to assess whether the PPP is a good use of resources. This typically involves assessing the project and proposed PPP against four key criteria:

- **Feasibility and economic viability of the project**—whether the underlying project makes sense, irrespective of implementation as a PPP or through traditional public sector procurement. First, this means confirming that the project is central to policy priorities and sector and infrastructure plans. It then involves feasibility studies to check the project is possible, and economic appraisal to check the project is cost-benefit justified, and the least-cost approach to delivering the expected benefits
- **Commercial viability**—whether the project is likely to be able to attract good-quality sponsors and lenders by providing robust and reasonable financial returns. This is subsequently confirmed through the tender process
- **Value for money of the PPP**—whether developing the project as the proposed PPP can be expected to best achieve value for money, compared to the other options. This can include comparing against the alternative of public procurement (where that would be an option). It can also include comparing against other possible PPP structures, to check that the proposed structure provides the best value (for example that risks have been allocated optimally)
- **Fiscal responsibility**—whether the project's overall revenue requirements are within the capacity of users, the public authority, or both, to pay for the infrastructure service. This involves checking the fiscal cost of the project—both in terms of regular payments, and fiscal risk—and establishing whether this can be accommodated within prudent budget and other fiscal constraints.

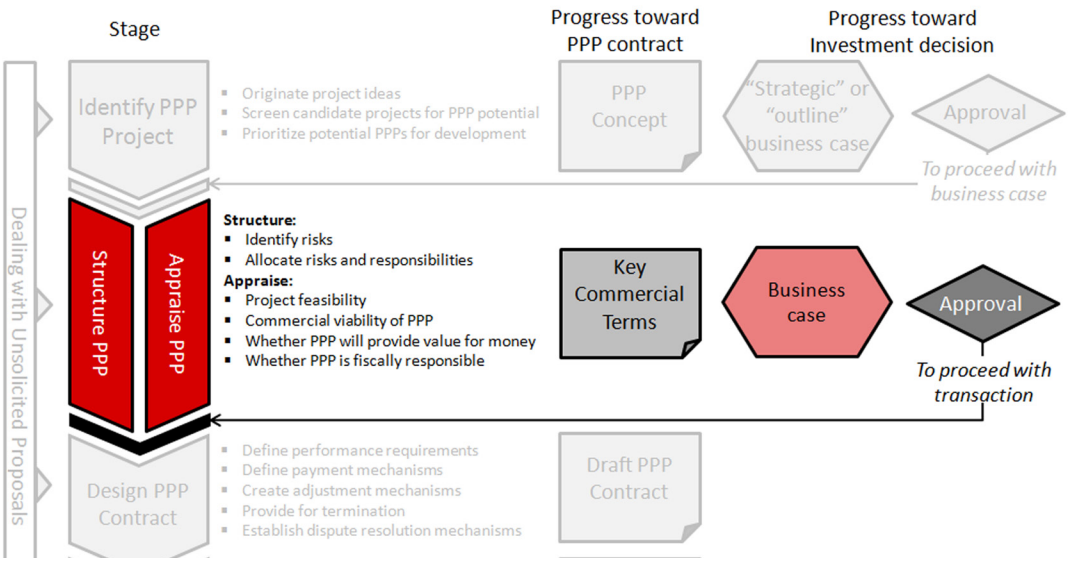
These criteria (with some variations) are described in more detail in "Public-Sector Investment Decision" chapter in **Yescombe's book on PPPs** [#1, Chapter 5], "Selecting PPP projects" in **Farquharson et al** [#2, Chapter 4], and "Project identification" chapter in the **EPEC "Guide to Guidance"** [#3, Chapter 1].

This Section describes how PPP practitioners can assess a proposed PPP against each of the criteria described in **Box 3.2.1: PPP Project Appraisal Criteria**: feasibility (**Section 3.2.1**); commercial viability of the PPP (**Section 3.2.2**); value for money of the PPP (**Section 3.2.3**); and affordability of the PPP (**Section 3.2.4**).

Figure 3.2.1 shows how project appraisal fits in to the overall PPP process. Initial assessment against each criterion is typically done at the project identification and initial screening stage, as described in **Section 1: Identifying PPP Projects**. Detailed appraisal is typically first done as part of a detailed "business case", alongside developing the PPP project structure as described in **Section 3: Structuring PPP Projects**. For example, assessing the value for money of the PPP depends on risk allocation, which is an important part of PPP structuring. An initial risk allocation could be assessed for whether it will provide value for money, which assessment might result in changes to the risk allocation.

PPP appraisal is typically re-visited at later stages. In particular, the final cost (and so, affordability and value for money) is not known until after procurement is complete, when the government must make the final decision to sign the contract. Many governments require further appraisal and approval at this stage.

**Figure 3.2.1: Appraise PPP Projects**




## 3.2.1 Assessing Project Feasibility and Economic Viability

It only makes sense to do a project as a PPP if the project itself is sound. Most governments therefore subject proposed PPP projects to the same technical and economic appraisal as

any other major public investment project. There are typically two broad elements to this assessment. The first is developing, and assessing the feasibility of, the project concept. The second is appraising whether the project is a good public investment decision—typically based on some form of economic viability analysis.

Many governments have their own processes in place for appraising major public investment projects. Therefore this section describes the process very briefly as it may be applied to potential PPP projects, highlighting key issues that would typically be addressed, and providing a selection of sources that may usefully supplement other governments' existing guidance material.

## Defining project and checking feasibility

Before being appraised, a project must be defined. That is, the project should be clearly defined as to its physical outline, the technology it will use, the outputs it will provide, and the people it will serve. Capital, operating, and maintenance costs should be estimated, as well as any revenue expected to be generated. This definition should be sufficiently broad to apply to a project delivered as either a PPP or a conventional publicly financed project.

The project concept is typically then tested for feasibility across several dimensions:

- **Technical feasibility**—can the project actually be implemented as planned, using proven technologies, and without unreasonable technical risks?
- **Legal feasibility**—are there any legal barriers to the project? For a PPP this includes considering whether there are any legal constraints on the government's ability to enter into a PPP contract
- **Environmental and social sustainability**—at a minimum, does the project comply with national environmental and planning standards? In some cases, a higher bar may be set, such as compliance with the **equator principles**—a set of standards on managing environmental and social risk from project finance transactions, based on World Bank Group standards, set out in detail at the following website: http://www.equator-principles.com/ [#6].

Answering these questions usually involves engaging experts to undertake several detailed studies—for example, technical feasibility studies, legal analysis, environmental, and social impact assessments. For further guidance, see for example the detailed manuals published by the governments of **Colombia** [#7] **Chile** [#8], **Peru** [#9] and the **Philippines** [#10] for carrying out feasibility studies for public sector investment projects.

## Appraising project economic viability

Many governments undertake some form of economic viability analysis, to decide whether a proposed project is a good use of public resources. A project is economically viable if the economic benefits of the project exceed its economic costs.

Generally speaking, the economic costs of the project are the same as its financial costs—though in some cases, other non-market costs, such as environmental damage, may be taken into account. The economic benefits are a measure of the value the project will deliver to people. The revenue a project will generate is usually a lower bound estimate of its economic benefits—but benefits can be much higher than revenues. For example, the benefits from improved transportation can exceed the tolls paid on a highway. The value of education at a high school is measured by the enhancement in the lives and prospects of the children who attend, even if no school fees are charged. Economic viability analysis can also include "cost-effectiveness" analysis, to determine whether the project is the lowest-cost way to achieve the identified benefits.

There is a wide range of literature and guidance material available on project appraisal and economic cost-benefit analysis. Table 3.2.1 provides a selection, with examples of government guidance material, as well as resources from international institutions, and textbooks.

## Application to PPPs

Many countries require PPP projects to meet feasibility and economic viability criteria. Often this is because meeting these criteria is a requirement for all major government projects, as described above. Other times the requirements are PPP specific. For example:

- In the **Philippines**, all major infrastructure projects are required to pass through a well-structured feasibility and viability assessment process, set out in a detailed reference manual [#10]. The same process is generally required for PPP projects
- In **Chile**, the 2010 Concessions Law[72] states that the social evaluation of a potential PPP project must be approved by the Ministry of Planning. This is one of the documents that the Concessions Council must review before allowing a project to be implemented as a PPP
- In **Indonesia**, guidelines issued by the government-owned Indonesia Infrastructure Guarantee Fund[73] specify criteria by which requests for guarantees to PPP projects will be assessed. The criteria include technical feasibility, economic viability, and environmental and social desirability
- In **Jamaica**, the first criterion that any proposed PPP project must satisfy is "project viability". Project viability incorporates effectiveness in meeting government objectives, technical feasibility, legal feasibility, environmental compliance, social sustainability, and economic viability [#4, pages 49-51].

Generally, project appraisal for a potential PPP is the same as for any other public investment project. Common challenges in project appraisal—such as optimism bias—also apply

72. Government of Chile (2010) *Law 20410 ("Concessions Law").*

73. IIGF (2011) *Public Private Partnership in Indonesia: Infrastructure Guarantee Provision Guideline* available online at the IIGF website: www.iigf.co.id.

when assessing PPPs (see **Module 1, Section 1.2: Poor Planning and Project Selection**). Implementing agencies should also bear in mind that the work done in assessing project viability also lays the foundation for the rest of the PPP appraisal. The project definition provides the basis for development of the PPP financial model and commercial and fiscal viability analysis, as well as the Public Sector Comparator. Assessment of technical feasibility, social and environmental sustainability will provide a basis for the risk analysis. Cost and demand estimates developed for the economic viability assessment will provide initial inputs to the financial modeling, and value for money analysis.

**Table 3.2.1: Example Project Appraisal Resource**

| Type | Resource | Description |
|---|---|---|
| National guidelines | United Kingdom Treasury (multiple editions) *Green Book* [#11] | Provides guidance on appraisal of projects, programs and policies, by combining economic, financial, social and environmental assessments to guide analysis of the options available, along with detailed technical annexes. Emphasizes the importance of avoiding optimism bias in project appraisal. The Green Book is used as a guide by many other governments |
| | Chile Ministry of Planning (2006) *Metodología General de Preparación y Evaluación de Proyectos* [#8] | Provides detailed guidance for project evaluation—including cost-benefit analysis, cost-efficiency analysis |
| | Ministry of Finance of Peru, *Pautas para la Identificación, Formulación y Evaluación Social de Proyectos de Inversión Pública, a Nivel de Perfil* [#9, pages 88-136] | Provides detailed guidelines for evaluating projects—social evaluation, sensitivity analysis, sustainability analysis, environmental impact assessment, organization and management assessment, implementation plan development, and carrying out the logic framework methodology |
| | Philippines National Economic Development Authority, *Reference Manual on Project Development and Evaluation* [#10] | Includes detailed guidance on project evaluation—focused on calculating the Financial, Economic and Government rates of return from the project |
| General guidance material | Evalsed *Resource for the Evaluation of Socio-Economic Development—Section on "Evaluating Alternatives"*[7] European Commission [#12] | Online sourcebook covering all aspects of socio-economic evaluation. Includes sections on cost-benefit analysis and cost effectiveness analysis, in each case describing the approach, when it is used, its strengths and weaknesses, and providing a bibliography with further reading |
| | Belli, Anderson, Barnum, Dixon, Tan (1997) *Handbook on Economic Analysis of Investment Operations,* World Bank [#13] | A detailed handbook, starting with an introduction to economic analysis, and going on to describe in detail how to assess economic costs and benefits. The handbook includes chapters on estimating economic benefits specific to the health, education, and transport sectors |
| | Boardman, Greenberg, Vining, and Weimer (2011) *Cost Benefit Analysis: Concepts and Practice (4th edition)* Prentice Hall [#14] | Comprehensive reference textbook on cost-benefit analysis issues |

| Type | Resource | Description |
|---|---|---|
| Sector-specific guidance material | ADB (1998) *Handbook for Economic Analysis of Water Supply Projects* [#15] | Provides detailed guidance on appraising water supply projects—including demand analysis and forecasting, least cost analysis, financial and economic cost-benefit analysis, and sensitivity and risk analysis |
| | John Hine (2008) *Economics of Road Investment* [#16] | This presentation provides an overview of specific issues in cost-benefit analysis for road sector projects |
| | Khatib (2003) *Economic Evaluation of Projects in the Electricity Supply Industry* [#17] | Chapter 7, "economic evaluation of projects" focuses on economic cost-benefit analysis. Other chapters cover financial analysis, describe how to build environmental considerations into project appraisal, and describe risk analysis |

## 3.2.2 Assessing Commercial Viability

Having established that the project is viable, the next step may be to consider whether, if structured as a PPP, it would be attractive to the market. Will private parties see the opportunity as something attractive to pursue? Generally speaking private parties will find a project commercial attractive if it offers good financial returns, and requires the private party to bear only reasonable levels of risk.

Assessing returns, typically involves **financial analysis**—that is, building a project financial model and checking project cash flows, returns, and financial robustness. The **ADB's PPP Handbook** [#18, pages 17-18] gives a brief overview of typical financial analysis of a PPP. **Yescombe's chapter on financial structuring** [#19, Chapter 10] provides a more comprehensive description.

Where revenue from user charges exceeds costs plus the commercially required return on capital, the project will generally be commercially attractive (provided risks are seen as reasonable). Where user charges are not at this level, government can use the financial analysis to assess the government contributions that will be needed—which in turn needs to be assessed as part of the fiscal analysis discussed in **Section 3.2.4**.

Governments also often assess the **appetite of potential partners** for a proposed PPP, before taking it to market. This could include simply considering whether similar projects have previously been implemented with private partners in the country or region. It can also include testing market interest by market sounding—that is, presenting the main parameters

74. Available at the following link: http://ec.europa.eu/regional_policy/sources/docgener/evaluation/evalsed/sourcebooks/method_techniques/evaluating_alternatives/index_en.htm.

of the project[75] to potential investors, for questions and comments. The following resources provide more guidance on market sounding:

- **Farquahrson's chapter on managing the interface with the private sector** [#20, Chapter 8], which includes "top 10 tips" for a successful market-sounding exercise
- **4Ps paper on "soft market testing"** [#21], which includes tips, practical guidance, and a case study of a market sounding exercise for a PPP in the United Kingdom
- **Grimsey and Lewis' chapter on procurements options analysis** [#22, pages 409-411], which describes a market sounding exercise for a hypothetical example hospital PPP project
- **Singapore's PPP Handbook** [#23, pages 56-57], which requires implementing agencies to conduct market sounding before pre-qualification, and describes the type of information that should be shared at this stage.

Market sounding may be done by government agencies directly, or may be delegated to experienced transaction advisors. Transactions advisors such as the IFC and others tend to know likely bidders for many kinds of PPP projects. Using them to assess market interest allows government to take advantage of these relationships, which can results in market feedback that is more honest and specific than an inexperienced government agency would be able to elicit on its own.

## 3.2.3 Assessing Value for Money

A key objective of most governments in implementing PPPs is to achieve value for money in providing needed infrastructure. "Value for money" means achieving the optimal combination of benefits and costs, in delivering services users want.[76] Many successful PPP programs require an assessment of whether a PPP is likely to offer better value for the public than conventional public procurement.

There are several possible approaches to value for money assessment. One option is simply to carry out a **qualitative assessment**, as described in **Section 3.2.3.1**. This includes checking that all the conditions are in place for the PPP to achieve value for money—for example, that the PPP has been structured well, and that competitive tension is expected.

Many PPP programs require **quantitative assessment** of value for money. This typically involves comparing the chosen PPP option against a "Public Sector Comparator" (PSC)—that

75. Typically, the project concept and initial structure, developed during the structuring phase described in **Section 1: Structuring PPP** Projects.

76. See for example the United Kingdom National Audit Office Value for Money program website, which defines "good value for money" as "the optimal use of resources to achieve the intended outcomes". http://www.nao.org.uk/about_us/what_we_do/value_for_money_audit.aspx.

is, what the project would look like if delivered through conventional procurement[77]. This comparison can be made in different ways. The most common is to compare the **fiscal cost** under the two options—comparing the risk-adjusted cost to government of procuring the same project through traditional procurement, to the expected cost to government of the PPP (pre-procurement) or the actual PPP bids (post-procurement). An alternative is to compare the two options on an **economic cost-benefit** basis. That is, to quantitatively weight the expected benefits of a PPP over conventional procurement against its additional costs. Sections 3.2.3.2 and 3.2.3.3 describe these two approaches, linking to references and tools.

A value for money comparison can be done for a specific proposed PPP project. It can also be done at a program level, for projects with common characteristics. For example, the **United Kingdom Treasury's manual on assessing value for money** [#28] describes how value for money should be assessed at both the program and project levels.

Value for money analysis—particularly quantitative "public sector comparator" methodologies—has been subject to wide debate. Some question the value and relevance of a PSC approach, particularly in a developing country context. For more discussion on approaches to assessing value for money, and their relative advantages and disadvantages, see:

- **Farquharson et al's** section on "selecting projects" [#2, pages 41-43], which briefly describes value for money and cost benefit analysis, and considers the value of qualitative versus quantitative approaches
- **Grimsey and Lewis's article on PPPs and Value for Money** [#24 pages 347-351] includes a section on "approaches to value for money", describing examples of different countries' approaches
- **The OECD's publication on PPPs** [#25, pages 71-72], which also describes the range of methods used by different countries, on a "spectrum" of complexity, from simply relying on competition, to full cost-benefit analysis of different procurement options
- **The PPIAF toolkit for PPP in Roads and Highways** has a section on value for money and the PSC [#27], which describes the logic behind value for money analysis, and how the PSC is used.

## 3.2.3.1 Qualitative value for money assessment

While quantitative approaches to value for money analysis are required in many developed country PPP programs, they are complex, and may not always be needed or worth the cost. For example, if there is no public-sector option for a project (for example, because the country lacks the fiscal space to implement it), or if there is ample anecdotal evidence

77 . Value for money analysis could in principle be used to choose between a wide range of project delivery options. The value for money of a Design Build delivery option could be compared to a Design Build Operate Maintain option and a Design Build Operate Maintain Finance option (see **Module 1 Section 2: How PPPs are Used** for these different types). In practice, most PPP programs have found such an approach to be too complicated and expensive. This is way they adopt a pair-wise comparison. First, the best PPP option is developed using the approaches described in **Section 3: Structuring PPP Projects**. This is then compared to the best option using traditional public sector procurement.

that, say, privately financed toll roads in a country perform better than public ones, then a detailed comparative exercise may not be warranted. Moreover, when the availability of data is limited, then a PSC approach is less useful.

Instead, or as a complement to quantitative analysis, governments can use a qualitative approach to check that the PPP is likely to achieve value for money, as described by **Farquharson et al** [#2 pages 42-43]. This typically involves checking whether the conditions that are necessary to achieve value for money are in place, including:

- Checking that the PPP has been structured well, to make the best possible use of the PPP "value drivers" (as described in **Module 1, Box 1.1.1**), and following the principles set out in **Section 3: Structuring PPP Projects**
- Checking that the PPP is expected to generate competitive tension in the bidding process.

The United Kingdom **Treasury's manual on assessing value for money** [#27] encompasses both a quantitative and qualitative approach (as described further in **Box 3.2.2**). The manual sets out detailed questions and checklists for qualitatively evaluating the value for money of a proposed PPP project or program.

### 3.2.3.2 Standard PSC—comparing fiscal cost

The most common quantitative tool for value for money assessment of a PPP project is derived from the approach originally used in the United Kingdom's PFI program in the early 1990s[78]. It involves comparing the fiscal cost of a PPP delivery options with that of a conventional public delivery option.

The focus of the Fiscal Cost approach to Value for Money analysis is the construction of a Public Sector comparator (PSC)—the cost to government of implementing the project through traditional public procurement. Calculating the PSC can be complicated, as several adjustments are needed to ensure a fair comparison. **Box 3.2.2** briefly describes how the PSC is typically calculated, and highlights some methodological debates.

This type of PSC can be used at two stages of the procurement process, as described in the **OECD book's chapter on the economics of PPPs** [#25, pages 71-72]. These are:

- **Before the bidding process**—the PSC can be compared with a "shadow" or "reference" PPP, or "market comparator"—a model of the expected cost of the project under the PPP option. This can help identify whether the PPP can be expected to provide value for money, before deciding to go ahead with detailed preparation and procurement. The reference PPP model would be the same as the financial model described in **Section 2.2:**

78. As described in Leigland and Shugart's Gridlines article on the PSC [#32].

**Assessing Commercial Viability**. This is the emphasis of the United Kingdom's approach, as detailed in the Treasury guidance notes on value for money assessment [#26 and #28]

- **During the bidding process**—the PSC can also be compared with actual PPP bids received, to assess whether the bids provide value for money. This approach is used in Australia, and is described in a **PSC Technical Note** [#29].

Despite the appealing logic of the concept, there have been many criticisms of the usefulness of the PSC and fiscal cost comparison approach in countries where it has been used frequently, such as the United Kingdom and Australia. A **United Kingdom House of Lords' review of the PPP program**, for example, argued that shortage of relevant data and methodological issues limit the value of the PSC.[79] The government's response to the review agrees that the PSC provides only a partial picture, and highlights that its use is balanced with qualitative analysis, as described in **Section 3.2.3.1: Qualitative value for money assessment**.

**Leigland and Shugart's Gridlines article on the PSC** [#32, pages 2-3] summarizes these criticisms, which include the inevitable inaccuracy of estimates over a long-term project, lack of consensus on methodology, and so the possibility of manipulation to reach the desired conclusion. **Grimsey and Lewis** [#24, pages 362-371] describe some of these criticisms in more detail. Given these challenges, **Leigland and Shugart's Gridlines article** [#32, pages 3-4] also discusses whether and how the PSC approach could make sense in a developing country context.

**Box 3.2.2: How the Public Sector Comparator is Calculated**

Calculating a PSC can be complex. The starting point is typically the best estimate of the capital cost and lifetime operations and maintenance cost of implementing the project under public procurement. This is typically adjusted, to enable a fair comparison between the PSC and the PPP. The **Infrastructure Australia guidance note on PSC** [#29, Section 2.3] describes two types of adjustment:

- **Risk adjustments**—one of the main differences between public procurement and the PPP approach is that the PPP transfers some risks to the private party. The return on investment expected by the private party will take into account these transferred risks. This means that to make a fair comparison, the PSC should also take into account the cost of these risks
- **"Competitive neutrality" adjustments**—a public sector project or enterprise may have cost advantages or disadvantages compared to private company, which create costs or benefits to the government that are not normally taken into account when considering the cost of a publicly procured project. For example the tax liabilities under the two options may be different. These differences

79. United Kingdom House of Lords Select Committee on Economic Affairs (1st Report of Session 2009-2010) *Private Finance Projects and Off-Balance Sheet Debt*, Volume 1: Report (March 2010) HL Paper 63-I, pages 14-15.

should be corrected for in calculating the PSC.

There are also differences in the timing of payments between the PPP option—where payments are often spread over time—and public sector procurement, where the government must meet construction costs upfront. The streams of payments are usually converted into **net present values**, to give a single value for comparison. This requires defining the appropriate discount rate to apply to future cash flows in both the PPP and PSC models.

The following provide further descriptions and examples of how the PSC is used and calculated in different countries:

- The **United Kingdom Treasury's detailed guidance** [#28] is accompanied by a model spread sheet for carrying out quantitative value for money analysis, both available online at the following link: http://www.hm-treasury.gov.uk/ppp_vfm_index.htm
- **South Africa's PPP Manual** Module on the PPP Feasibility Study includes a detailed description of how to calculate and use the PSC [#5, Module 4, pages 17-49]
- **Colombia's technical note on PSC analysis** [#31], which defines the concepts of PSC and value for money, and provides both detailed guidance and an example of how to calculate the PSC.

Methodological differences and challenges

Although the PSC has been widely used, the particular methodology differs between countries, and there is on-going debate on several methodological points. For example, **Shugart's article on the PSC** [#33] highlights two related issues: which is the appropriate discount rate to use when calculating present values, and how the cost of risk should be taken into account. **Grimsey and Lewis** [#34] and **Gray, Hall and Pollard** [#35] both also focus on the choice of discount rate, and its relationship with risk allocation under PPP and public procurement. **Partnerships Victoria's FAQs and Common Problems in PSC Development** [#30] also touch on these issues, and describe some other common problems.

Many countries in Latin America, such as Colombia and Perú, have developed thorough methodological guidelines for implementing the Public Sector Comparator methodology. However, due to lack of capacity and or trustworthy information to implement such a complex methodology, as of 2011 none of these countries have implemented the full methodology in practice.

### 3.2.3.3 Economic cost-benefit comparison of PPP and public procurement

One of the criticisms sometimes leveled at the PSC is that it focuses solely on the financial cost to government of PPP or public procurement. A more comprehensive approach would also take into account the differences in expected benefits, and compare the net economic

benefit under PPP or under public procurement. On the other hand, as **Grimsey and Lewis** note [#34, page 353] this adds further complexity to the value for money analysis over the PSC approach, and could risk making the results even more subjective.

For example, the **EPEC's note on non-financial benefits of PPP** [#36] suggests how some of the benefits of PPP—as described in **Module 1**, **Section 1: Infrastructure Challenges and How PPPs can Help**—could be quantified, and added to a more typical PSC analysis.

Few countries have introduced this kind of analysis in practice. **New Zealand**'s new PPP program is an exception, and adopts cost-benefit analysis as the main tool for assessing procurement options. New Zealand's PPP guidance material [#37, pages 6-12] asks practitioners to identify the possible benefits of PPP over traditional public procurement—from among the value drivers as described in **Module 1, Box 1.1.1: PPP Value Drivers**—and where possible to assign dollar values to each benefit. The **New Zealand government's 2010 value for money assessment of procuring new schools as PPPs** [#38] provides an example of this approach in practice. A similar approach is also being adopted in **Jamaica**, as described in the draft PPP procedures manual [#4].

In many developing countries' PPP programs, the aim is not just to reduce cost, but to transform service delivery. For example, governments hope that roads will be better maintained, thus delivery much greater benefits in terms of trade and economic development. These changes in service levels and quality cannot be captured by comparing fiscal costs of PPP and public procurement. Where these expected benefits are important, and quantitative value for money analysis is desired, economic cost-benefit analysis will likely be the better approach.

### 3.2.4 Assessing Fiscal Implications

A proposed PPP project may be feasible and economically viable, and value for money analysis may show that a PPP is the best way of procuring it. Nonetheless, the procuring government also needs to decide whether the PPP is affordable and fiscally responsible, given its fiscal constraints.

Many governments have entered into PPPs not fully understanding their possible cost. This can create significant fiscal risk for governments (see **Module 1**, **Section 1.1.1.2: PPP Limitations and Pitfalls—Lack of Fiscal Clarity**). To avoid this pitfall, governments need to assess fiscal affordability when they appraise a PPP project—so that they do not go to market with projects that they cannot afford.

Fiscal commitments can be either "direct" or "contingent". Direct commitments are those the government knows it will have to make if the PPP project goes ahead—for example, the availability payments for a school PPP. Contingent payments are ones that will only be made if certain events occur—for example, payments that may have to be made under a minimum traffic guarantee if traffic levels are below projections on a PPP highway (for more on these

concepts, see **Module 2**, **Box 2.4.1: Types of Fiscal Commitments to PPPs**).

Governments need to assess the likely costs of both types of commitments, as set out below. Once likely fiscal costs are identified, Government needs to assess whether those costs will be affordable. **Module 2**, **Section 2.4.1: Controlling Fiscal Exposure to PPPs** describes how governments can assess the affordability of those commitments. For example, this can include comparing annual cost estimates against the projected budget of the contracting authority, considering the impact on debt sustainability, or introducing specific limits on different types of PPP commitment.

## 3.2.4.1 Assessing cost of direct fiscal commitments

Direct fiscal commitments may include up-front capital contributions or regular payments by government such as availability payments or shadow tolls. **Box 3.2.3** briefly describes common types of direct fiscal commitments to PPPs.

**Box 3.2.3: Direct Payment Commitments to PPP Projects**

Direct liabilities are payment commitments that are not dependent on the occurrence of an uncertain future event (although there may be some uncertainty regarding the value). Direct liabilities arising from PPP contracts can include:

- **Upfront "viability gap" payments**—an up-front capital subsidy (which may be phased over construction, or against equity investments)
- **Availability payments**—a regular payment or subsidy over the lifetime of the project, usually conditional on the availability of the service or asset at a contractually specified quality. The payment may be adjusted with bonuses or penalties related to performance
- **Shadow tolls, or output-based payments**—a payment or subsidy per unit or user of a service—for example, per kilometer driven on a toll road.
- For more on types of payment commitments, see Module 2 of this Reference Guide, Section 4: Public Financial Management for PPPs.

The nature of the government's direct commitments will be defined during the structuring process described in Section 3. This highlights the importance of an iterative process between appraisal and structuring. The government needs to have an idea of the level and type of support that will be needed in order to assess fiscal affordability, before investing large amounts in project preparation. Fiscal limits set in appraisal can then inform further structuring efforts, until the project converges on a structure that is both fiscally responsible and attractive to the market. In fact, the value of the direct fiscal commitments is often a key bid variable, as described in **Section 5: Managing PPP Transactions**. This means the fiscal cost cannot finally be known until after the tender process is complete.

During the appraisal stage, the value of the direct fiscal commitments required can be estimated

from the project financial model, described in **Section 2.2: Assessing Commercial Viability**. The value of these direct payment commitments is driven by the project costs, and any non-government revenues. The value of the direct fiscal contribution required is the difference between the cost of the project (including a commercial return on capital invested) and the revenue the project can expect to earn from non-government sources such as user fees.

The fiscal cost can be measured in different ways:

- **Estimated payments in each year**—that is, the amount that the government expects to have to pay in each year of the contract, given the most likely project outcomes. This is the most useful measure when considering the budget impact of the project
- **Net present value of payments**—if the government is committed to a stream of payments over the lifetime of the contract—such as availability payments—it is often also helpful to calculate the net present value of that payment stream. This measure captures the government's total financial commitment to the project, and is often used if incorporating the PPP in financial reporting and analysis (such as debt sustainability analysis). Calculating the net present value of requires choosing an appropriate discount rate—the choice of discount rate to apply when assessing PPP projects has been a subject of much debate, as described below.

In both cases, it is also helpful to estimate how the payments might vary—for example, they may be linked to demand, or be denominated in a foreign currency and so be subject to exchange rate changes. **Irwin's paper on fiscal support to PPPs** [#39, pages 16-17 and Annex] provides more detail on measuring the cost of different kinds of fiscal support.

Having estimated the cost of direct payment commitments, the government needs to decide if they are affordable. **Module 2** of this Reference Guide, **Section 2.4.1: Controlling PPP Exposure** describes how some governments consider the affordability of direct payment commitments under PPPs—for example, this can include projecting current spending levels forward, or introducing specific limits on government payment commitments to PPPs. An **OECD publication on PPPs** [#40, pages 36-46] provides a helpful overview.

## 3.2.4.2 Assessing cost of contingent liabilities

Contingent liabilities arise in well-designed PPP project because there are some risks that government is best placed to bear. Which risks these are should be defined through project structuring (see **Section 3: Structuring PPP Projects**). **Box 3.2.4** describes some types of contingent liability that governments may accept under PPP contracts.

**Box 3.2.4: Contingent Liabilities Under PPP Projects**

Contingent liabilities are payment commitments whose occurrence, timing and magnitude depend on some uncertain future event, outside the control of government. Contingent liabilities under PPP contracts can include:

**Guarantees on particular risk variables**—an agreement to compensate the private party for loss in revenue should a particular risk variable deviate from a contractually specified level. The associated risk is thereby shared between the government and the private party. For example, this could include guarantees on demand remaining above a specified level; or on exchange rates remaining within a certain range

- **Compensation clauses**—for example, a commitment to compensate the private party for damage or loss due to certain, specified, uninsurable *force majeure* events
- **Termination payment commitments**—a commitment to pay an agreed amount, should the contract be terminated due to default by the public or private party—the amount may depend on the circumstances of default
- **Debt guarantees or other credit enhancements**—a commitment to repay part or all of the debt used to finance a project. The guarantee could cover a specific risk or event. Guarantees are used to provide more security to a lender that a loan will be repaid.

For more on types of payment commitments, see Module 2 of this Reference Guide, Section 2.4: Public Financial Management for PPPs. The EPEC note on State Guarantees in PPPs [#41, Section 2] provides further detail on the different types of guarantees that governments may offer to PPP projects.

Assessing the cost of contingent liabilities is more difficult than for direct liabilities, since the need for, timing, and value of payments are uncertain. Broadly speaking, there are two possible approaches, as described in the **Infrastructure Australia guidance note for calculating the PSC** [#42, pages 84-109]:

- **Scenario analysis**—scenario analysis involves making assumptions for the outcome of any events or variables that affect the value of the contingent liability, and calculating the cost given those assumptions. For example, this could include working out the cost to government in a "worst case" scenario, such as default by the private party at various points in the contract. It could also include calculating the cost of a guarantee on a particular variable—say, demand—for different levels of demand outturns

- **Probabilistic analysis**—an alternative approach is to use a formula to define how the variables that affect the value of the contingent liability will behave, and use a combination of mathematics and computer modeling to calculate the resultant costs. This enables analysts to estimate the distribution of possible costs, and calculate measures such as

the median (most likely) cost, the mean (average) cost, and different percentiles (for example, the value within which the cost is likely to lie 90 percent of the time). However, to produce useful results it requires a lot of information on the underlying risk variables.

Scenario analysis is the simpler form of risk analysis, and gives a sense of the range of possible outcomes, but not their likelihood. In practice most governments use scenario analysis, if anything, to assess the possible cost of contingent liabilities. A probabilistic approach requires more input data, and complex statistical analysis. In practice, only a few governments have used probabilistic analysis to assess a few types of contingent liabilities.

**Irwin's book on government guarantees** [#43] also provides a comprehensive discussion of why and how governments accept contingent liabilities under PPP projects by providing guarantees, and how the value of these guarantees can be calculated. The following resources provide more guidance and example of how particular countries approach this problem:

- **Colombia**'s Ministry of Finance has defined its approach to (i) assessing the financial and economic implications of contingent liabilities, (ii) accounting, budgeting and assessing the fiscal implications of contingent liabilities, and (iii) identifying, classifying, quantifying and managing contingent liabilities. This approach is set out in a presentation on "management of contingent liabilities" [#44]

- In **Chile**, the Ministry of Finance has developed a sophisticated model for valuing minimum revenue and exchange rate guarantees to PPPs. This valuation is updated on an on-going basis for all PPP projects, and reported in an annual report **on contingent liabilities** [#45]. The report includes a brief description of the techniques used in Chile to analyze and value guarantees extended to PPP projects. **Irwin and Mokdad's paper on managing contingent liabilities from PPP projects** [#46, Appendix 1] also describes the Chilean methodology in more detail

- **Perú**'s Finance Ministry has also published a methodology for valuing contingent liabilities under PPPs. The consultancy report that defined the methodology has also been published, and includes a description of methodological alternatives, and the PPP-related contingent liabilities in Perú. Both documents are available on the Ministry's website section on managing contingent liabilities [#47].

Having estimated the cost of contingent liabilities, the government can assess whether they are affordable given fiscal constraints. For example, as described in **Module 2**, **Section 2.4.1: Controlling PPP Exposure**, this could include considering the implications of PPP contingent liabilities in the context of overall debt sustainability analysis, or specific limits on PPP liabilities. A few countries have introduced contingent liability funds, to ring-fence and budget for these liabilities. The **EPEC publication on State Guarantees in PPPs** [#41] also provides a helpful overview of different approaches to managing the fiscal implications of PPP contingent liabilities.

| Key References: PPP Project Appraisal | | |
|---|---|---|
| | **Reference** | **Description** |
| **PPP Project Appraisal Overviews** | | |
| 1 | Yescombe (2007) *Public-Private Partnerships: Principles of Policy and Finance,* Butterworth-Hienemann [ISBN: 978-0-7506-8054-7] | Chapter 5: The Public-Sector Investment Decisions describes the factors that a public authority should take into account when deciding to invest in new public infrastructure via a PPP, and how these can be assessed |
| 2 | Farquharson, Torres de Mästle, and Yescombe with Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets*, PPIAF, World Bank | Chapter 4: Selecting PPP Projects describes how governments can assess whether a project can and should be developed as a PPP, including considering affordability, risk allocation, value for money, and market assessments |
| 3 | European PPP Expertise Centre (EPEC) (2011) *A Guide to Guidance: Sourcebook for PPPs*, Version 2, February 2011 | Chapter 1: Project Identification, Section 1.2: Assessment of the PPP Option describes and provides links to further references on how governments assess whether a proposed PPP is affordable, whether risks have been allocated appropriately, whether it is bankable, and will provide value for money |
| 4 | Government of Jamaica (forthcoming) *PPP Procedures Manual* | Describes in detail the criteria that all PPP projects must satisfy—viability of the project, and value for money, marketability, and fiscal responsibility of the PPP—and the analysis required to demonstrate compliance with those criteria at the business case stage |
| 5 | National Treasury, PPP Unit, Government of South Africa (2004) *Public Private Partnership Manual, Module 4: PPP Feasibility Study*, Government of South Africa | Module 4: PPP Feasibility Study describes in detail the analysis required to support a business case for a PPP project. This includes needs and options analysis, project due diligence, value for money analysis, and economic valuation |
| **Project Feasibility and Economic Viability Analysis** | | |
| 6 | Equator Principles Website: http://www.equator-principles.com/ | Describes the Equator Principles framework for managing the social and environmental impact of project finance investments, and provides guidance material on best practices |
| 7 | National Planning Department of Colombia (2006) *General ajustada metodología para la identificación, preparación y evaluación de proyectos (General Adjusted Methodology for the identification, Preparation, and Evaluation of Projects)* Pages 79-84 | Provides guidelines for the Technical Feasibility Studies that should be carried out at this stage to estimate the capital, machinery, labor, materials, and other inputs required to implement the PPP project |
| 8 | Chile Ministry of Planning (2006) *Metodología de General de Preparación y Evaluación de Proyectos (General Methodology for Preparing and Evaluating Public Investment Projects)* Ministry of Planning, Planning Division, Studies and Investment | Provide guidance for preparing projects—identifying the problem, producing a diagnosis of the current situation, identifying possible alternatives—and evaluating projects—including cost-benefit analysis, cost-efficiency analysis |
| 9 | Government of Perú, Ministerio de Economía y Finanzas (undated) *Pautas para la Identificación, formulación y evaluación social de proyectos de inversión pública, a nivel de perfil (Guidelines for the Identification, Formulation, and Social Evaluation of Public Investment Projects)* | Provides guidelines for identifying public investment projects, and for carrying out detailed feasibility studies and economic viability analysis |
| 10 | Philippines National Economic Development Authority (NEDA) *Reference Manual on Project Development and Evaluation Volume 1,* NEDA publications | Provides detailed guidance on feasibility and economic evaluation analysis required for all public investment projects |

| | | |
|---|---|---|
| **11** | United Kingdom Treasury (2003 edition, updated 2011) *The Green Book. Appraisal and Evaluation in Central Government*, United Kingdom Government | Provides guidance on appraisal of projects, programs and policies, by combining economic, financial, social and environmental assessments to guide analysis of the options available, along with detailed technical annexes. The Green Book is used as a guide by many other governments |
| 12 | The Resource for the Evaluation of Socio-Economic Development (Evalsed) *Sourcebook 2 – Techniques & Tools—Section on "Evaluative Alternatives"*[15] European Commission | Online sourcebook covering all aspects of socio-economic evaluation. Includes sections on cost-benefit analysis and cost effectiveness analysis, in each case describing the approach, when it is used, its strengths and weaknesses, and provides a bibliography with further reading |
| 13 | Belli, Anderson, Barnum, Dixon, and Tan (1997) *Handbook on Economic Analysis of Investment Operations*, Operational Core Services Network Learning and Leadership Center, World Bank | A detailed handbook, starting with an introduction to economic analysis, and going on to describe in detail how to assess economic costs and benefits. The handbook includes chapters on estimating economic benefits specific to the health, education, and transport sectors |
| **14** | Boardman, Greenberg, Vining, and Weimer (2011) *Cost Benefit Analysis: Concepts and Practice (4th edition)* Prentice Hall [ISBN-10: 0137002696 ISBN-13: 9780137002696] | Comprehensive reference textbook on cost-benefit analysis issues |
| **15** | Asian Development Bank (ADB) (1998) *Handbook for Economic Analysis of Water Supply Projects* | Provides detailed guidance on appraising water supply projects—including demand analysis and forecasting, least cost analysis, financial and economic cost-benefit analysis, and sensitivity and risk analysis |
| 16 | John Hine (2008) *Economics of Road Investment*, Powerpoint presentation, Siteresources, World Bank | This presentation provides an overview of specific issues in cost-benefit analysis for road sector projects |
| **17** | Khatib (2003) *Economic Evaluation of Projects in the Electricity Supply Industry,* The Institution of Engineering and Technology, London [ISBN: 0-86341-30408/978-0-86341-304-9] | Chapter 7, "economic evaluation of projects" focuses on economic cost-benefit analysis. Other chapters cover financial analysis, describe how to build environmental considerations into project appraisal, and describe risk analysis |
| **Commercial Viability Analysis** | | |
| **18** | Asian Development Bank (ADB) (2008) *Public-Private Partnership (PPP) Handbook* | Chapter 3.5 on assessing "commercial, financial and economic" issues, includes an overview of a typical financial model of a PPP project, and how it is used to assess commercial viability |
| **19** | Yescombe (2007) *Public-Private Partnerships: Principles of Policy and Finance,* Butterworth-Heinemann [ISBN: 978-0-7506-8054-7] | Chapter 10: Financial Structuring describes in detail the typical components of a financial model of a PPP, and the key measures used to assess financial robustness |
| **20** | Farquharson, Torres de Mästle, and Yescombe with Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets*, PPIAF, World Bank | Chapter 8: Managing the Initial Interface with the Private Sector describes how to prepare and carry out a market sounding exercise |
| 21 | 4Ps public private partnerships programme (2002) *4ps Guidance and Case Study. Guidance: Soft Market Testing Exercises and How to Undertake Them*, 4Ps Knowhow | Provides tips and guidance on implementing market sounding , and a case study on the experience of market sounding for a hospital in the United Kingdom |
| 22 | Grimsey and Lewis (2009) *Developing a Framework for Procurement Options Analysis* in Akintoye and Beck (eds) (2009) *Policy, Finance and Management for Public-Private Partnerships,* Wiley-Blackwell [ISBN: 978-1-4051-7791-7] | Describes the advantages of market sounding and sets out a market sounding exercise for a hypothetical example hospital PPP project |

| | | |
|---|---|---|
| 23 | Government of Singapore (2004) *Public-Private Partnership Handbook*, Ministry of Finance | Requires implementing agencies to conduct market sounding before pre-qualification, and describes the type of information that should be shared at this stage |
| **Value for Money Analysis** | | |
| 24 | Grimsey and Lewis (2005) *Are Public Private Partnerships value for money?: Evaluating alternative approaches and comparing academic and practitioner views*, Accounting Forum 29, Issue 4, December 2005, pages 345-378 | Describes approaches to assessing value for money in PPPs, and sets out in detail the PSC approach and its pros and cons |
| 25 | OECD (2008) *Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money* [available from the Organization for Economic Cooperation and Development, ISBN-9789264042797] | Chapter 3 on "the economics of Public-Private Partnership: is PPP the best alternative" describes the determinants of value for money in a PPP, and how it is typically assessed |
| 26 | HM Treasury United Kingdom (2006) *Value for Money Assessment Guidance* | Describes in detail how value for money should be assessed, at three stages: assessing overall programs, particular projects, and during procurement. The guidelines take a quantitative and a qualitative approach, and include detailed checklists for the latter |
| 27 | PPIAF (2009) *Online Toolkit for Public Private Partnerships in Roads and Highways*, World Bank | Section on value for money and the PSC describes the logic behind value for money analysis, how the PSC is used, and some of its shortcomings |
| 28 | HM Treasury, United Kingdom (2011) *Value for Money Quantitative Assessment User Guide*, and *Value for Money Quantitative Evaluation Spreadsheet*, both available at http://www.hm-treasury.gov.uk/ppp_vfm_index.htm | Provides detailed guidance and a worked example on the quantitative approach to value for money assessment—calculating the Public Sector Comparator, and comparing it to the PPP reference model, as well as an excel spreadsheet tool for carrying out the analysis |
| 29 | Infrastructure Australia (2008) *National Public-Private Partnership Guidelines Volume 4: Public Sector Comparator Guidance* | Provides detailed guidance on calculating the public sector comparator, and a worked example, including extracts from the excel model used |
| 30 | Partnerships Victoria Requirements (2009) *Annexure 6: Frequently asked questions and common problems in Public Sector Comparator (PSC) development* | Lists and answers common questions on when and how the PSC should be used, and some methodological questions. Also describes some common problems in developing the PSC |
| 31 | Government of Colombia, Ministry of Finance and Public Credit (2010) *Comparador Público - Privado para la selección de proyectos APP (Technical Note: Public Sector Comparator for Selecting PPP projects)* | Introduces the PSC methodology, explains all the analytic steps, and provides a worked example |
| 32 | Leigland (2006) *Is the public sector comparator right for developing countries? Appraising public-private projects in infrastructure*, PPIAF Gridlines No. 4 –April 2006 | Summarizes common criticisms of PSC analysis, and describes whether and how using PSC analysis may make sense in developing country contexts |
| 33 | Shugart (2006) *Quantitative Methods for the Preparation, Appraisal, and Management of PPI Projects in Sub-Saharan Africa. Final Report* NEPAD Secretariat / PPIAF | Describes some methodological inconsistencies and challenges with the PSC—focusing on two related issues: which is the appropriate discount rate to use when calculating present values, and how the cost of risk should be taken into account |
| 34 | Grimsey & Lewis (2004) *Discount debates: Rates, risk, uncertainty and value for money in PPPs*, Public Infrastructure Bulletin Volume I Issue 3 Article 2 | Describes the implications of the choice of discount rate in comparing PPP and public procurement, and the relationship between discount rates and risk allocation |

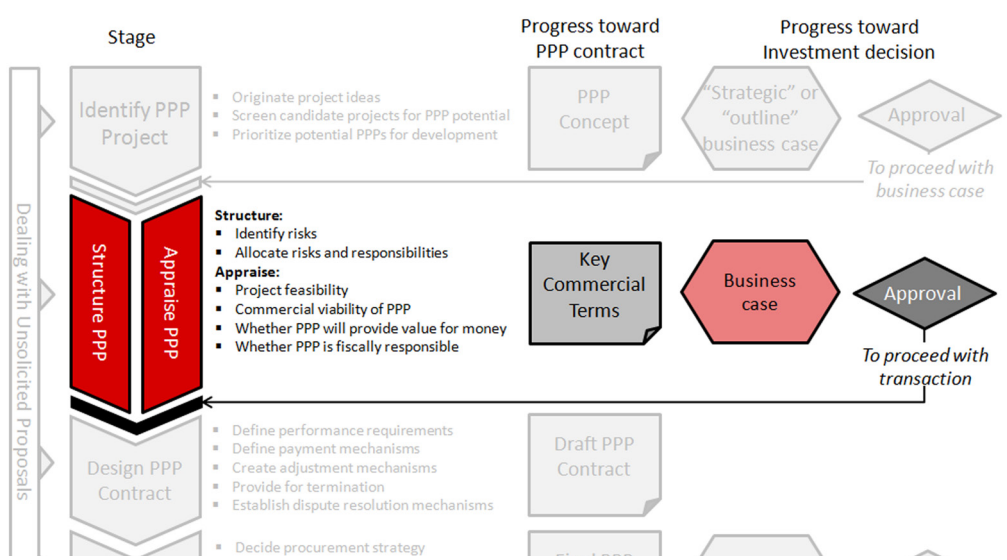
| | | |
|---|---|---|
| 35 | Gray, Hall, and Pollard (2010) *The Public Private Partnership Paradox*, UQ Business School | Provides a more theoretically-driven discussion of the choice of discount rate for evaluating PPPs, compared with public procurement projects—emphasizing the difference between discounting future cash outflows and inflows |
| 36 | European PPP Expertise Center (EPEC) (2011) *The Non-Financial Benefits of PPPs: A Review of Concepts and Methodology*, European PPP Expertise Center | Describes the shortcomings of standard PSC analysis, which assesses fiscal costs but does not take into account non-financial costs and benefits. Suggests an alternative approach incorporating non-financial benefits in the PSC |
| 37 | National Infrastructure Unit, Government of New Zealand (2009) *Guidance for Public Private Partnerships (PPPs) in New Zealand*, Government of New Zealand | Chapter 5: Procurement Options sets out the logic and analysis for assessing whether procuring a project as a PPP is likely to provide value for money. This includes a simple, quantitative cost-benefit comparison of PPP and public procurement |
| 38 | Castalia (2010) *School PPPs in New Zealand: Will PPPs Provide Value for Money as a Method of Procuring Schools in New Zealand? Stage One Business Case*[16] | Carries out a cost-benefit analysis value assessment of a PPP for new school buildings, against the alternative of public procurement as typically carried out in the education sector in New Zealand |
| **Fiscal Analysis** | | |
| 39 | Irwin (2003) *Public Money for Private Infrastructure: Deciding When to Offer Guarantees, Output-Based Subsidies, and Other Fiscal Support*, World Bank Working Paper No. 10 | Section 6: Comparing the Cost of Different Instruments describes how governments can assess the cost of various types of fiscal support to PPPs—including output-based grants, in-kind grants, tax breaks, capital contributions, and guarantees |
| 40 | OECD (2008) *Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money* [available from the Organization for Economic Cooperation and Development, ISBN-9789264042797] | Chapter 3 on "the economics of Public-Private Partnership: is PPP the best alternative" describes how the affordability of a PPP can be assessed |
| 41 | European PPP Expertise Centre (EPEC) (2011) *State Guarantees in PPPs: A Guide to Better Evaluation, Design, Implementation, and Management*, European PPP Expertise Centre (EPEC) | Sets out the range of state guarantees used in PPPs—encompassing finance guarantees, and contract provisions such as revenue guarantees, or termination payments. Describes why and how they are used, how their value can be assessed, and how they can be best managed |
| 42 | Infrastructure Australia (2008) *National Public-Private Partnership Guidelines Volume 4: Public Sector Comparator Guidance* | Section 16: Identifying, allocating, and evaluating risk describes in detail different methodologies for valuing risk (and contingent liabilities) in PPPs |
| 43 | Irwin (2007) *Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects*, World Bank | Comprehensively describes why and how governments accept contingent liabilities under PPP projects by providing guarantees. Describes in detail how the value of these guarantees can be calculated, with examples |
| 44 | Colombia Ministerio de Hacienda y Crédito Público (2005) *Pasivos Contingentes - Colombia (Contingent Liabilities)* Ministerio de Hacienda y Crédito Público, Dirección General de Crédito Público y del Tesoro Nacional | Presentation by the Ministry of Finance of Colombia on the conceptual and legal frameworks, and methodologies used in Colombia for managing contingent liabilities |
| 45 | Dipres (2010) *Informe de Pasivos Contingentes 2010 (Contingent Liabilities Report 2010)* Dirección de Presupuestos del Ministerio de Hacienda, Gobierno de Chile | Describes the conceptual framework for assessing contingent liabilities and the government's contingent liability exposure. This includes quantitative information (maximum value and expected cost) on government guarantees to PPP projects (concessions) |

| | | |
|---|---|---|
| 46 | Irwin and Mokdad (2010) *Managing Contingent Liabilities in Public-Private Partnerships: Practice in Australia, Chile, and South Africa*, World Bank / PPIAF | Describes the approach in the State of Victoria, Australia, Chile, and South Africa, to approvals analysis, and reporting of contingent liabilities under PPPs. Appendix 1 describes in detail the methodology used in Chile to value revenue and exchange rate guarantees |
| 47 | Perú Ministerio de Economía y Finanzas *website* section on contingent liabilities under PPP projects[4] | Presents a methodology, results, and background reports on the value of contingent liabilities under PPP projects in Peru |

## 3.3. Structuring PPP Projects

"Structuring a PPP project" means allocating responsibilities, rights, and risks to each party to the PPP contract. This allocation is defined in detail in the PPP contract. However, it is typically developed iteratively, rather than drafting a detailed contract straight away. The first step is to develop the initial project concept into key commercial terms—that is, an outline of the required outputs, the responsibilities and risks borne by each party, and how the private party will be paid. The key commercial terms are typically detailed enough to enable practitioners to appraise the proposed PPP, as described in **Section 3.1**, before committing the resources needed to develop the draft PPP contract in detail.

**Figure 3.3.1: Structuring PPP Projects**




80. Available online at the following link: http://ec.europa.eu/regional_policy/sources/docgener/evaluation/evalsed/sourcebooks/method_techniques/evaluating_alternatives/index_en.htm

81. Available online at http://www.educationaotearoa.org.nz/storage/oia1.pdf, together with some critical assessments of the approach (published under the Freedom of Information Act)

82. http://www.mef.gob.pe/index.php?option=com_content&view=article&id=340&Itemid=100908&lang=es.

Figure 3.3.1 shows how PPP structuring—to the level of key commercial terms—fits into the overall development process. As described in the introduction to this Module, PPP structuring and PPP appraisal are in practice parallel and iterative processes. Information from the feasibility study and economic viability analysis is a key input to PPP structuring—for example, identifying the key technical risks, and providing estimates for demand and users' willingness to pay for services. The PPP structure then feeds into commercial viability, affordability and value for money analysis—which may find that changes are needed to the proposed risk allocation. The aim is typically to structure a PPP that will meet the relevant appraisal criteria set out in **Box 3.2.1: PPP Project Appraisal Criteria**—that is, be technically feasible and economically viable, commercially viable, fiscally responsible, and provide value for money.

The starting point for PPP structuring is the project concept: that is, the project's physical outline, the technology it will use, the outputs it will provide, and the people it will serve. These are often developed before deciding whether to implement the project as a PPP, as described in **Section 3.1: Identifying PPP Projects**. The detailed specification of output requirements, for inclusion in the PPP contract, is described further in **Section 3.4: Designing PPP Contracts**.

Most resources on PPP project structuring focus on identifying and allocating project risks. This makes sense, since appropriate risk allocation is behind many of the PPP Value Drivers described in **Module 1** of this Reference Guide, in **Box 1.1.1: PPP Value Drivers**. Following this approach, the other elements of the PPP structure—such as the allocation of responsibilities and the payment mechanism—stem from the risk allocation. For example, construction risk may be allocated to the private party, on the basis that the private party is best-qualified to manage construction. This means that the private party should also be allocated the responsibility and right to make all construction-related decisions. The mechanism for allocating commercial risk to the private party may be to define a "user-pays" payment mechanism.

This section follows the literature, starting with identifying and prioritizing project risks (Section 3.3.1) then describing how risks are allocated (Section 3.3.2). Section 3.3.3 then describes how the risk allocation relates to the other aspects of project structure.

## 3.3.1 Identifying Risks

The first step toward structuring the PPP is often to put together a comprehensive list of all the risks associated with the project. Such a list is known as a "risk register". In this context, a "risk" is unpredictable variation in the project's value—from the point of view of some or all stakeholders—arising from a given underlying "risk factor". For example, "demand risk" is the risk that the project value, and project revenues, will be lower (or higher) than expected because demand is lower (or higher) than expected. **Irwin's book on PPP guarantees and risk** defines risk in more detail [#1, pages 47-56].

PPP risks vary depending on the nature of the project and the assets and services involved. Nonetheless, certain risks are common to many types of PPP project. These are usually grouped into risk categories, which are often risks associated with a particular function (such as construction, operations, or financing), or with a particular project phase (such as termination). **Box 3.3.1** describes some common PPP risk categories.

**Box 3.3.1: PPP Risk Categories**

The following categories of risk are common to many PPPs:

- **Site**—risks associated with the availability and quality of the project site, such as the cost and timing of acquiring the site, needed permits or assuring rights of way for a road, the effect of geological or other site conditions, and the cost of meeting environmental standards
- **Design, construction and commissioning**—risk that construction takes longer or costs more than expected, or that the design or construction quality means the asset is not adequate to meet project requirements
- **Operation**—risks to successful operations, including the risk of interruption in service or asset availability, the risk that any network interface does not work as expected, or that the cost of operating and maintaining the asset is different than was expected
- **Demand, and other commercial risk**—the risk that usage of the service is different than was expected, or that revenues are not collected as expected
- **Regulatory or Political**—risk of regulatory or political decisions, or changes in the sector regulatory framework, that adversely affect the project. For example, this could include failure to renew approvals appropriately, unjustifiably harsh regulatory decisions, or in the extreme, breach of contract or expropriation
- **Change in legal framework**—the risk that a change in general law or regulation adversely affects the project, such as changes in general corporate taxation, or in rules governing currency convertibility, or repatriation of profits
- **Sponsor, or default**—the risk that the private party to the PPP contract turns out not to be financially or technically capable to implement the project
- **Economic or financial**—risk that changes in interest rates, exchange rates or inflation adversely affect the project outcomes
- **Force Majeure**—risk that external events beyond the control of the parties to the contract, such as natural disasters, war or civil disturbance, affect the project
- **Asset ownership**—risks associated with ownership of the assets, including the risk that the technology becomes obsolete or that the value of the assets at the end of the contract is different than was expected.

For more detail, see Yescombe's chapter on risk evaluation and transfer [#2, Chapter 14], and Delmon's chapter on risk allocation [#3, Chapter 5], both of which start with descriptions of typical types of PPP risk.

Many resources provide "standard" risk lists and preferred risk allocations, in some cases for specific project types. Several examples are provided in **Section 3.3.2.3: Risk allocation matrices**. These standard lists can be useful resources when identifying project risks for a particular PPP. However, PPP projects often have unique features or circumstances—for example, the particular geological conditions on the route of a proposed road. This means most implementing agencies make use of experienced advisors to help identify a comprehensive list of project risks.

## Assessing and prioritizing risks

To focus effort when allocating risks, it is often also helpful to consider the importance of the different risks. Some risks will be much more significant than others: in terms of the likelihood of the risk occurring, the severity of its impact on project outcomes, or both. Risk can be assessed either quantitatively, or qualitatively.

The **Infrastructure Australia guidance note on calculating the PSC** [#4, pages 84-109] provides detailed guidance both on identifying risk, and using various quantitative techniques to evaluate risks. An **ADB handbook for risk analysis** in project evaluation [#5, pages 9-28] also includes a chapter describing quantitative techniques for assessing risk.

In practice, many implementing agencies take a more qualitative approach at this stage. **Guidance on risk management by the Victoria Managed Insurance Authority** [#6, pages 79-83] provides helpful guidance on a risk "heat map"—a qualitative risk assessment approach, in which risks are categorized according to their likelihood of occurrence, and impact. **Farquharson et al** [#7, Appendix B] provide an example "risk register" for a PPP project, which also takes a qualitative approach. Each risk is categorized as being low, medium, or high for both "risk status" (likelihood) and "impact". Most effort should be directed to managing those risks identified as being both high likelihood, and high impact.

# 3.3.2 Allocating Risks

Allocating risk, in the context of a PPP, means deciding which party to the PPP contract will bear the cost (or reap the benefit) of a change in project outcomes arising from each risk factor. Allocating project risk well is one of the main ways that PPPs can achieve better value for money. **Iossa et al** [#8, page 20] describe two main goals of risk allocation. The first is to create incentives for the parties to manage risk well—and thereby improve project benefits or reduce costs. The second is to reduce the overall cost of project risk by "insuring" parties against risks they are not happy to bear.

## 3.3.2.1 Risk allocation principles

A central principle of risk allocation is that each risk should be allocated to whoever can manage it best. **Irwin's book on guarantees and PPP risk** [#1, pages 56-62] defines this principle more precisely, stating each risk should be allocated to the party:

- **Best able to control the likelihood of the risk occurring**—for example, the private party is usually in charge of project construction, because they have the most expertise in that area. This also means they should bear the cost of construction cost over-runs or delays
- **Best able to control the impact of the risk on project outcomes**, by assessing and anticipating a risk well and responding to it. For example, while no party can control the risk of an earthquake, if the private firm is responsible for project design, it could use techniques to reduce the damage should an earthquake occur
- **Able to absorb the risk at lowest cost**, if the likelihood and impact of risks cannot be controlled. A party's cost of absorbing a risk depends on several factors, including: the extent to which the risk is correlated with its other assets and liabilities; its ability to pass the risk on (for example, to users of the service through price changes, or to third parties by insuring); and the nature of its ultimate risk bearers (for example, the ability of governments to spread risk among taxpayers means they may have lower risk-bearing cost than private firms, whose ultimate risk-bearers are their shareholders).[83]

As described in the **OECD's publication on risk sharing and value for money in PPPs** [#9, pages 49-50], applying these principles does not imply transferring the maximum possible risk to the private sector. Transferring to the private party the risks that it is better able to control or mitigate can help lower the overall project cost, and improve value for money. However, the more total risk transferred to the private party, the higher the return—or risk premium—the equity investors will require, and the harder it will be to raise debt finance.

The principles and practice of risk allocation in PPPs is also increasingly the subject of academic research and literature. the For example, **Ng and Loosemore's article on risk allocation in PPPs** [#10] describes PPP risk categories and allocation approach, and provides a case study of risk allocation in the New Southern Railway project (an underground airport-city rail link) in New South Wales, Australia. **Bing et al's article on risk allocation in PPP/PFI projects in the** United Kingdom [#11] assesses how risks have been allocated in PFI projects in practice, to identify risk allocation preferences.

## 3.3.2.2 Limitations on risk allocation

There are some limits to how risks can be allocated in a PPP project. These include the following:

- **Level of detail of risk allocation**—in theory, every project risk could be identified, and allocated to the party best able to bear it, thereby improving value for money. In practice, as **Irwin** describes [#1, pages 63-65] the cost of doing so would be high, and likely

83 . The private party's cost of risk-bearing is captured in the higher return—or risk premium—demanded for taking on a riskier project. These risk premiums are determined in investment markets, by investors (shareholders or lenders) comparing the opportunity to other possible investments. The government's cost of risk-bearing is more difficult to quantify directly, which can result in contracting agencies accepting too much project risk.

outweigh the benefits in the case of less significant risks. In most cases, risks are allocated in groups, sometimes with exceptions for certain significant risks. For example, the private party may bear all construction risks, except certain key geological risks, against which the government could provide a particular indemnity

- **Risks that cannot be transferred**—certain types of risk cannot be transferred through the PPP contract. For example, the private party will always bear certain political risks—in particular, the risk that the government will renege on the contract or expropriate the assets. International institutions such as the Multilateral Investment Guarantee Agency (MIGA) provide political risk insurance to help mitigate this risk[84]

- **Extent of risk transfer to private party**—the equity holders of the private party to the PPP contract—the PPP company—are only exposed up to the value of their equity stake. Moreover, lenders will typically only accept a relatively low level of risk, concomitant with their expected returns. In practice, this means that the extent to which risk can be transferred is limited by the level of equity in the project company, as described by **Ehrhardt and Irwin**[85]. If losses due to a risk turn out to be greater than the equity stake, the equity holders can walk away from the project. Since the government is ultimately responsible for making sure services are provided—as described by **Iossa et al** [#8, page 25]—the remainder of the project risk remains with the government.

A combination of these limitations can mean that country characteristics affect the possibilities of risk transfer. Ke et al's study of risk allocation [#12] demonstrates this, in their comparison of risk allocation for projects in China, Hong Kong, Greece, and the United Kingdom.

### 3.3.2.3 Risk allocation matrices

The output of the risk allocation process at this stage is often a risk allocation matrix. The risk allocation matrix lists risks—often sorted by category—and defines who bears each risk. This risk allocation is then put into practice by including the appropriate clauses in the PPP contract as described in **Section 3.4: Designing PPP Contracts**. **Farquharson et al** [#7, Appendix B] provide an example "risk register" (or matrix) for a PPP project.

Many governments capture the risk allocation principles described above in "preferred risk allocations", often presented in the form of a preferred risk allocation matrix. These preferred allocations may be generic, or specific to sectors or types of project. They are usually a starting point for allocating risk on a particular project, since projects often have particular characteristics that may mean a different risk allocation would provide better value for money.

---

84. For a description of MIGA's guarantee products, see http://www.miga.org/investmentguarantees/index.cfm.

85. Ehrhardt and Irwin (2004) *Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy towards Leverage, Risk Allocation, and Bankruptcy*, World Bank Policy Research Working Paper 3274, April 2004. See also **Module 1** of this Reference Guide, **Section 1.3: How PPPs are Financed**, Section 1.3.2.2: Limiting the amount of debt allowed, for more detail.

The following are examples of preferred risk allocations and risk allocation matrices:

- **Infrastructure Australia** has produced "standard commercial principles" for both economic and social infrastructure projects [#13], which describe in detail how risks and responsibilities will be allocated
- **Hong Kong's Introductory Guide to PPPs** [#14, Annex E] provides a detailed example of a risk matrix for PPP of a water treatment plant
- The **Government of Rio de Janeiro's PPP Manual** [#15, Annex 2] provides an example of a risk matrix for a PPP infrastructure project
- **South Africa's PPP Manual, Module 4: PPP Feasibility Study** [#16, Annex 4] includes a standardized PPP risk matrix—listing risks, and describing for each risk a typical risk mitigation mechanism and allocation.

## 3.3.3 Translating Risk Allocation into Contract Structure

Much of the PPP literature focuses on risk allocation. Some of it can give the impression that, once a preferred risk allocation has been settled, this can somehow translate smoothly into a detailed contract. Such an impression may be misleading, since many experienced PPP practitioners will go through an intermediate step in which they define other elements of the contract structure such as: "who will do what?", and "how will the payments flow?" Unfortunately, relatively few resources describe how the risk allocation translates into an overall contract structure.

The **World Bank's toolkit for PPP in water services** [#17, pages 97-124] is an exception, and explicitly sets out a process of allocating responsibilities and risks together—since each responsibility is typically associated with a bundle of risks. For example, the private party may be responsible for revenue collection, which carries the risk that some customers will not pay. The private party may be responsible for construction, which entails a series of risks. Labor costs, the timing of equipment delivery, and the cost and time to obtain permits can affect total costs and construction times, positively or negatively.

The toolkit therefore sets out an approach to contract structuring, starting with identifying the major areas of responsibility, or functions: design and construction of new assets, finance, operations, and maintenance (for more on these functions see **Module 1**, **Section 1.2: How PPPs Are Used**). For each function, specific responsibilities can then be defined, and risks identified that are associated with each responsibility.

The toolkit also describes the close linkage between defining the details of the payment mechanism—in this case, tariff review mechanisms since the toolkit focuses on user pays project—and risk allocation. **Section 3.4.2: Payment Mechanism** goes into more detail.

Generalizing from this approach suggests that it may be helpful to think of arriving at a "PPP type" (see **Module 1**, **Section 1.2: How PPPs are Used**) from considering whether the public or private party is better able to carry out each of the key "functions" (Design, Build, Operate, Maintain, and Finance). This allocation of functions may be based on an analysis of which party is best able to bear the risks naturally associated with each function. Consideration of institutional linkages and political constraints will also factor into the decision on which party can perform which function.

Once a basic PPP type is chosen, the remainder of the risk allocation can be thought of as a gloss on the basic function allocation. For example, if the private party is to be responsible for the "Build" function, but the public party is to retain geotechnical risk, this would be included in the contract design as an exception to the basic functional principle that all construction-related risks are for the private party to manage and absorb.

Beside allocation of functions, another key element in contract structure is how the payments flow. Payment mechanisms may follow from the allocation of functions and risks. For example, if the private party is better able to manage collection risks and demand risks, then the private party will likely be remunerated directly from user charges. However, if the private party is able to manage collection risk but is not asked to take demand risk, then the payment structure may involve the private party collecting user charges and remitting them to the public authority, while the public authority then pays the private party for asset availability, with a bonus for achieving high levels of collections.

Finally, a necessary complement to defining the payment mechanism is defining how performance will be measured, monitored, and enforced. For example, the government's payment may be conditional on the availability of the asset, with a view to transferring most operating risk to the private sector. This risk transfer can only be achieved in practice if the standards required as part of "available" are clear and practicable. **Section 3.4.1: Performance Requirements** provides more details.

The following resources provide further guidance on the linkages between responsibilities, risks, rights, and payment mechanisms, which can inform development of the contract structure:

- **Irwin** [#1, page 61] briefly describes how responsibilities, rights, and risks should be allocated together. This follows from the principle of risk allocation that a risk is allocated to the party best able to manage it: the rationale only holds if the party is also given the right and responsibility to make decisions related to that risk
- **Iossa et al** [#8, pages 26-31] also describes how different PPP contract types—with different functions allocated to the private party and different payment mechanisms—typically correspond to different risk allocations. The authors also describe [pages 33-34] how output specifications, payment mechanisms, and risk allocations need to be closely aligned

- **India's online PPP Toolkit** [#18] Module 1: PPP Background has a section on "PPP modal variants", which describes typical risk allocations under different PPP Contract types, thus giving a guide to how risk allocation can translate into choice of basic contract structure.

| Key References: Structuring PPP Projects | | |
|---|---|---|
| **Reference** | | **Description** |
| 1 | Irwin (2007) *Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects*, World Bank | Chapter 4 defines risk, and explains the principles of allocating risk under PPP projects. Chapter 5 provides examples of putting those principles into practice for three risks: exchange-rate risk, insolvency risk, and policy risk |
| 2 | Yescombe (2007) *Public-Private Partnerships: Principles of Policy and Finance,* Butterworth-Heinemann [ISBN: 978-0-7506-8054-7] | Chapter 14 on risk evaluation and transfer describes types of risk that are common to PPP projects |
| 3 | Delmon (2009) *Private Sector Investment in Infrastructure: Project Finance, PPP Projects and Risks*, Second Edition, World Bank, PPIAF, and Kluwer Law International [ISBN: 978-90-411-2714-3] | Chapter 5 on risk allocation goes into more detail on PPP risk categories |
| 4 | Infrastructure Australia (2008) *National Public-Private Partnership Guidelines Volume 4: Public Sector Comparator Guidance* | Section 16: Identifying, allocating, and evaluating risk describes in detail different methodologies for quantitatively valuing risk in PPPs |
| 5 | Economics and Research Department, Asian Development Bank (ADB) (2002) *Handbook for Integrating Risk Analysis in the Economic Analysis of Projects* Asian Development Bank (ADB) | Chapter 2 describes quantitative techniques for assessing risk |
| 6 | Victoria Managed Insurance Authority (2010) *Risk Management: Developing and Implementing a Risk Management Framework* | A general guide on risk management frameworks, developed for public sector managers in the State of Victoria, Australia. Includes examples of risk assessment, and risk management templates |
| 7 | Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets*, PPIAF, World Bank | Appendix B is "risk register" for a PPP project, providing an example of a risk allocation matrix, and of a qualitative approach to assessing and prioritizing risks |
| 8 | Iossa, Spagnolo, and Vellez (2007) *Contract Design in Public-Private Partnerships*, World Bank | Section 3 on "risk allocation incentives, and types of PPP" describes typical types of risk in PPP contracts, the principles of effective risk allocation as well as its limitations, and typical risk allocations under different types of PPP contract |
| 9 | OECD (2008) *Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money* [available from the Organization for Economic Cooperation and Development, ISBN-9789264042797] | Chapter 3 on "the economics of public-private partnership" includes a section on the role and nature of risk, which describes the concept of optimum risk transfer |
| 10 | Ng and Loosemore (2006) *Risk allocation in the private provision of public infrastructure* International Journal of Project Management, (2006), pages 66-76 | Describes classification and allocation of risk in PPP projects, and provides a case study of risk allocation for a railway PPP project in Australia |
| 11 | Bing, Akintoye, Edwards, and Hardcastle (2005) *The allocation of risk in PPP / PFI construction projects in the UK,* International Journal of Project Management, 23, pp. 25-35 | Assesses how risks have been allocated in practice in PPP projects in the United Kingdom |

| Key References: Structuring PPP Projects | | |
|---|---|---|
| Reference | | Description |
| **12** | Ke, Wang, and Chan (2010) *Risk Allocation in PPP Infrastructure Projects: Comparative Study,* Journal of Infrastructure Systems, Volume 16, Issue 4 | Compares risk allocation for PPP projects in China, Hong Kong, Greece, and the United Kingdom, exploring how country characteristics affect the risk allocation that can be achieved in practice |
| **13** | Infrastructure Australia (2008) *National Public Private Partnership Guidelines Volume 3: Commercial Principles for Social Infrastructure* Infrastructure Australia (2010) *National Public Private Partnership Guidelines Volume 7: Commercial Principles for Economic Infrastructure*, and *Roadmap for applying the Commercial Principles* | Describe in detail how risks and responsibilities will be allocated in social infrastructure projects (based on a government-pays model) and economic infrastructure projects (based on a user-pays model). The Roadmap describes how the principles should be used—as a starting point for developing contracts for particular projects |
| 14 | Government of Hong Kong Efficiency Unit (2008) *An Introductory Guide to Public Private Partnerships (PPPs)*, Second Edition | Section 6 provides guidance on managing risk. Annex E provides an example risk allocation matrix for a water treatment plant |
| 15 | Government of Rio de Janeiro (2008) *Manual de Parcerias Público-privadas - PPPs* (PPP Manual) | Annex 2 provides an example of a typical risk matrix |
| **16** | National Treasury, PPP Unit, Government of South Africa (2004) *Public Private Partnership Manual, Module 4: PPP Feasibility Study*, Government of South Africa | Annex 3 provides guidance on how to calculate the value of risk. Annex 4 presents a standardized PPP risk matrix—listing risks, and describing for each risk a typical risk mitigation mechanism and allocation. |
| 17 | World Bank and PPIAF (2006) *Approaches to Private Sector Participation in Water Services: A Toolkit*, World Bank | Section 6: Allocating Risks and Responsibilities describes a process and principles for allocating both risks and responsibilities, as well as how the allocation can be defined in the contract, including through tariff rules |
| 18 | Ministry of Finance, Government of India (2011) *PPP Toolkit for Improving PPP Decision-Making Processes*, Department of Economic Affairs, Ministry of Finance, Government of India | Module 1: PPP Background has a section on "PPP modal variants", which describes typical risk allocations under different PPP contract types. |

## 3.4. Designing PPP Contracts

The PPP Contract is at the center of the partnership, defining the relationship between the parties, their respective rights and responsibilities, allocating risk, and providing mechanisms for dealing with change. In practice, the "PPP Contract" can encompass several documents and agreements, as described in Box 3.4.1.

**Box 3.4.1: What is the "PPP Contract"**

This section uses the "PPP contract" to mean the contractual documents that govern the relationship between the public and private parties to a PPP. In practice, the "PPP contract" may comprise more than one document. For example, a PPP to design, build, finance, operate, and maintain a new power plant, with power supplied in bulk to a government-owned transmission company, may be governed by a Power Purchase Agreement (PPA) between the transmission company and the PPP company, as well as an Implementation Agreement between the responsible government ministry and the PPP company. Each agreement may in turn refer to schedules or annexes to set out particular details—for example, detailed performance requirements and measures.

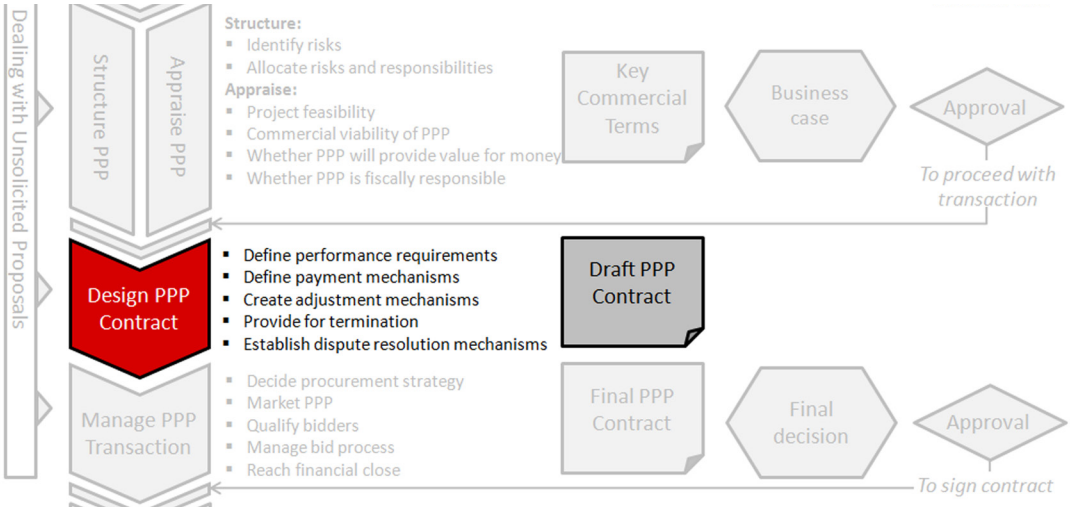
In addition to the PPP contract, there will also be numerous contracts between the private parties to the PPP. Chief among them would be contracts between the project company and its EPC contractor, financing agreements between the project company and its lenders, and shareholders agreements between equity investors. (See **Module 1**, **Section 3: How PPPs are Financed** for more on the PPP contract structure). The PPP contract may not be effective until these other contractual agreements are in place (see **Section 5.5: Achieving Contract Effectiveness and Financial Close**)

The **EPEC Guide to Guidance** [#1, page 23] lists topics that should be covered in a typical PPP contract—the standardized contracts below provide further examples. The **PPIAF Toolkit for PPP in Highways** [#2] section on contracts describes the range of contractual agreements typically involved for different types of PPP.

As shown in Figure 3.4.1, the draft PPP contract is generally needed before a Request for Proposals (RFP) is issued. Detailed contract design takes significant time and resources—including from expert advisors. Approval is often required—based on an initial structure and project appraisal, as described in **Sections 3.1 and 3.4**—before embarking on detailed design and investing these resources.

The draft PPP contract is typically included with the Request for Proposals (RFP) sent to prospective bidders. In some countries, the PPP contract issued with the RFP cannot be changed. In others, it may be changed as a result of interaction with bidders during the transaction process. For example, **Australia National PPP Guidelines Roadmap** [#1A] provides an overview of PPP contract development and how it progresses at each stage of implementing the PPP.

**Figure 3.4.1: PPP Contract Design Stage**




## Aim of PPP contract design

A well-designed contract is clear, comprehensive, and creates certainty for the contracting parties. Because PPPs are long-term, risky, and complex, PPP contracts are necessarily incomplete—that is, they cannot fully specify what is to be done in all future states of the world. This means the PPP contract needs to have flexibility built in, to enable changing circumstances to be dealt with as far as possible *within* the contract, rather than resulting in re-negotiation or termination.

The aim of PPP contract design is therefore to create certainty where possible, and bounded flexibility where needed—thereby retaining clarity and limiting uncertainty for both parties. This is typically done by creating a clear process and boundaries for change. To implement this style of contract in practice requires strong contract management institutions, as described in **Section 3.7: Managing PPP Contracts**.

## Content of this section

PPP contract design is a complex task. This section briefly sets out some key considerations—and provides links to tools, examples, and further resources—in six areas of PPP contract design:

- **Performance requirements**—defining the required quality and quantity of assets and services, along with monitoring and enforcement mechanisms, including penalties
- **Payment mechanisms**—defining how the private party will be paid, through user charges, government payments based on usage or availability, or a combination, and how bonuses and penalties can be built in

- **Adjustment mechanisms**—building in to the contract mechanisms for handling changes, such as extraordinary reviews of tariffs, or changing service requirements
- **Dispute resolution procedures**—defining institutional mechanisms for how contractual disputes will be resolved, such as the role of the regulator and courts, or the use of expert panels or international arbitration
- **Termination provisions**—defining the contract term, handover provisions, and circumstances and implications of early termination.

Together, these sets of provisions define the risk allocation under the contract. Obviously the aim must be to draft these provisions so that the risk allocation chosen (as set out in **Section 3.3: Structuring PPP Projects**) is achieved. The provisions dealing with adjustment mechanisms and dispute resolution are intended to avoid the need for renegotiation, by allowing changes to be made, and problems resolved, within the framework provided by the contract.

Many countries standardize elements of PPP contract design. This helps reduce the cost of developing the contract for each PPP contract. Some develop model contracts or contract clauses—Table 3.4.1 provides some examples. Others incorporate some elements in overall legislation, to govern all PPP contracts. For example, in Chile the dispute resolution mechanism is established in the Concessions Law.[86]

A helpful complement to the guidance in this section is the **World Bank's online PPP Infrastructure Resource Center**, at the following link: http://ppp.worldbank.org/public-private-partnership/content/agreements [#3]. This website hosts a collection of actual PPP contracts and sample agreements for a range of contract types and sectors.

**Table 3.4.1: Examples of Standardized PPP Contracts and Contract Clauses**

| Jurisdiction | Standard | Link |
|---|---|---|
| Australia | Standard commercial principles for social and economic infrastructure PPPs, set out why and how key risks and responsibilities should be allocated in the contract | Commercial principles for social infrastructure at: http://www.infrastructureaustralia.gov.au/public_private/files/National_PPP_Guidelines_Vol_3_Commercial_Principles_Social_Infrastructure_Dec_08.pdf<br>Commercial principles for economic infrastructure at: http://www.infrastructureaustralia.gov.au/public_private/files/Vol_7_Commercial_Principles_Economic_Infrastructure_Feb_2011.pdf |
| India | Model agreements for PPP in a range of transport sectors | Descriptions of model agreements available at: http://infrastructure.gov.in/mca.htm |

86. See Government of Chile (2010) Law 20410 *("Concessions Law")* Titulo XII "de la Comisión Conciliadora".

| Jurisdiction | Standard | Link |
|---|---|---|
| Netherlands | Standard PPP contract for DBFM in buildings and DBFMO in infrastructure | http://www.ppsbijhetrijk.nl/Publicaties?publicatiesoort=Modeldocument (Dutch and English versions) |
| New Zealand | Draft standard PPP contract | http://www.infrastructure.govt.nz/publications/draftpppstandardcontract |
| Pakistan | Standardized PPP Provisions | http://www.ipdf.gov.pk/tmpnew/PDF/PPP%20Contractual%20Standardized%20Provisions.pdf |
| Philippines | Sample contracts for PPP in bulk water supply, ICT, solid waste management, and urban mass transit | http://ppp.gov.ph/?page_id=671. Currently developing standardized terms for broader application |
| South Africa | Standardized PPP provisions published alongside the South Africa PPP Manual | http://intellect-ht.com/images/downloads/docs/12.pdf |
| United Kingdom | Standardized contracts for PFI projects, includes extensive guidance on each element of the contract | http://www.hm-treasury.gov.uk/ppp_standardised_contracts.htm |

### 3.4.1 Performance Requirements

The contract needs to clearly specify what is expected from the private party, in terms of the quality and quantity of the assets and services to be provided. For example, this could include defining required maintenance standards for a road, or defining the required service quality and connection expansion targets for utility services provided directly to users. Performance indicators and targets are typically specified in an annex to the main PPP agreement.

A key feature of a PPP is that performance is specified in terms of required outputs (such as road surface quality), rather than inputs (such as road surfacing materials and design) wherever possible. This enables the private PPP company to be innovative in responding to requirements, as described in **Farquahrson et al** [#4, page 34]. For more guidance and examples on the differences between output and input specification, see Hong Kong's **guidance on managing outsourcing contracts** [#5, pages 32-33], and **Guidance on output specifications** from the United Kingdom**'s Ministry of Defence** [#6], which also sets out a process for developing the specification for a PPP project

Specifying outputs rather than inputs also helps keep competition as open as possible. For example, the World Bank's sourcebook on governance in the electricity sector describes a power sector procurement, in which a particular technology was specified in the request for proposals, with the intent of limiting competition, and facilitating corruption.[87]
The PPP contract should set out the following:

- **Clear performance targets or output requirements**. **Farquharson et al** [#4, pages 34-36] note performance targets should be "SMART"—that is, Specific, Measurable, Achievable, Realistic, and Timely—and provides an example of SMART targets for a government accommodation PPP

87. World Bank / Energy, Transport & Water Department, and Finance, Economics & Urban Department (2009) *Deterring Corruption and Improving Governance in the Electricity Sector*, World Bank

- **How performance will be monitored**—that is, the information that must be gathered, by whom, and reported to whom. This can include roles for the government's contract management team, the private party, external monitors, regulators, and users (see **Section 3.7: Managing PPP Contracts**)

- **The consequences for failure to reach the required performance targets**, clearly specified and enforceable. This could include:

- Specifying penalty payments, liquidated damages or performance bonds. **Iossa et al** [#7, pages 47-49] describe the pros and cons of these kinds of enforcement mechanism. The **United Kingdom's standardized PPP contracts** also include a chapter on protection against late service commencement [#17, chapter 4], describing when and how liquidated damages or performance bonds may be used
    1. Specifying payment deductions for poor performance (or bonuses), built into the payment mechanism (see **Section 3.4.2: Payment Mechanism**)
    2. Following a formal performance warning system, and how persistent unsatisfactory performance can escalate into eventual termination for default, as described in **Section 3.4.5: Termination Provisions**

- **Step-in rights for the public party**, to take control of the concession (typically temporarily) under certain well-defined circumstances.[88] As described by **Iossa et al** [#7, pages 81-83], the intention is typically to enable step-in to deal with problems threating service provision that the public party may be better able to deal with, such as urgent environmental, health, or safety issues.

The following resources provide more guidance and examples on these three elements of setting performance requirements:

- **Kerf et al's Guide to Concessions** [#8, pages 70-74] describes issues and provides examples of performance targets in the context of concession contracts for utilities

- A **4Ps paper on the United Kingdom's PFI experience** [#9, pages 7-10] presents lessons learned on specifying output requirements. These include the need for clarity to avoid differences in interpretation, leading to disagreement, and ensuring reporting requirements are adequate

- **Castalia Key Contract Provisions** [#10, pages 11-15, and 36-45] describes some common problems in specifying service standards, and includes guidance and examples of good practice. It also describes possible approaches to specifying service requirements in concessions for existing service areas, where the data available on existing performance is poor, and sets out possible enforcement mechanisms

88. The contract typically also defines step-in rights for the lenders, should the private party default. Lender step-in rights are an important way of helping enable continuity of the contract even in the case of default by the project sponsors. See **Section 4.4: Dispute Resolution Mechanisms** for more on lender step-in rights.

- The **South Africa PPP Manual** Module 6 on "managing the PPP Agreement [#11, Module 6, pages 25-26] briefly outlines how performance requirements, monitoring and enforcement mechanisms should be established; more detail is set out in **South Africa's Standardized PPP Provisions** on "performance monitoring" [#11, Standardized PPP Provisions, pages 121-133]
- The Scottish Government has produced standard output-based **performance requirements for PFI schools** [#12], which also describe some key issues in defining performance requirements.

## 3.4.2 Payment Mechanism

The payment mechanism defines how the private party to the PPP is remunerated. Adjustments to payments to reflect performance or risk factors are also an important means for creating incentive and allocating risk in the PPP contract, as described in the **EPEC Guide to Guidance** [#1, page 24].

**Iossa et al** [#7, pages 41-49] provides a helpful overview of payment mechanisms for PPPs. The basic elements of PPP payment mechanisms can include:

- **User charges**—that is, payment collected by the private party directly from users of the service
- **Government payment**—that is, payment by the government to the private party for services or assets provided. These payments could be:
  1. Usage-based—for example, shadow tolls or output-based subsidies
  2. Based on availability—that is, conditional on the availability of an asset or service to the specified quality
  3. Upfront subsidies based on achieving certain milestones.
- **Bonuses and penalties**—deductions on payments to the private party, or penalties payable by the private party, due if certain specified outputs or standards are not reached; or conversely, bonus payments due to the private party if specified outputs are reached.

A PPP payment mechanism could include some or all of these elements. Key considerations in each case are described briefly in turn below, with references for further information.

### 3.4.2.1 Defining user charges

When a concession is paid by charging users, the approach to tariff setting and adjustment becomes an important risk allocation mechanism. In some PPPs, the private party may be free to set tariffs and the tariff structure. However, in many cases, user-pays PPPs are in sectors with monopoly characteristics, in which case tariffs are typically regulated by

government (along with service standards), to protect users (see **Module 1**, **Section 5.2: PPPs and Sector Regulation**). The key question for risk allocation is how tariffs will be allowed to change—for example, with changes in inflation or other economic variables, or changes in different types of cost.

Tariffs can be controlled by establishing tariff formulae in the PPP contract, or by regulation, or a combination of the two. For example a tariff formula may be set that establishes initial tariff levels, and a formula by which the tariff is allowed to regularly, automatically adjust in line with inflation. The contract may provide for regular tariff formula reviews, at which point other factors could be considered—as described further in Section **3.4.3: Adjustment Mechanisms**.

**Kerf et al Guide to Concessions** [#8, Sections 3.3, and 3.4] provides a helpful overview on price setting, and price adjustment for user-pays concessions contracts. The **World Bank's toolkit on water sector PPP** [#13, pages 108-118] also discusses tariff indexation and resets as a risk allocation mechanism for user-pays PPPs. **Castalia Key Contract Provisions** accompanying note [#10, pages 16-23] includes example tariff indexation mechanisms.

For further information on tariff-setting and adjustment, there is a wide literature available on different approaches to tariff-setting for infrastructure regulation. The **World Bank's Body of Knowledge on Infrastructure Regulation**, available online at http://www.regulationbodyofknowledge.org/, includes a module on price setting (that is, setting the overall price level), and a module on tariff design (that is, how tariffs may vary for different customers or circumstances). Both modules describe key issues and provide extensive links to further resources.

### 3.4.2.2 Defining government payments

Key considerations when defining government payments include the following:

- **Risk allocation implications of different government payment mechanisms**. For example, under a usage-based mechanism, demand risk is shared; whereas an availability payment mechanism means the government bears downside demand risk. Providing an upfront capital subsidy means the private party bears much less risk than if the same subsidy is provided on an availability basis over the contract lifetime. **Irwin's paper on fiscal support decisions** [#14] describes some of the trade-offs between different types of subsidies infrastructure projects (alongside user payments), and how governments can decide which is appropriate
- **Linkage to clear output specifications and performance standards**—linking payments to well-specified performance requirements is key, to achieve risk allocation in practice. See **Section 3.4.1: Performance Requirements** for more resources on specifying output and performance targets in the contract. The section below on defining bonuses and penalties provides more on how adjustments to payments should be specified

- **Indexation of payment formulae**—as for tariff specification, payments may be fully or partially indexed to certain risk factors, so the government bears or shares the risk.

The **EPEC Guide to Guidance** [#1, page 24] provides a helpful overview of how to define the payment mechanism for government-pays PPPs. **Yescombe** [#15, Chapter 13] provides more detailed description of the different options and their implications for risk allocation and bankability. A note developed by the **Scottish Government** [#16] describes experience with defining and implementing payment mechanisms in PPPs.

### 3.4.2.3 Defining bonuses and penalties

Under both cases, bonuses and penalties can be tied to particular outcomes. Under government-pays contracts, bonuses and penalties are typically implemented adjustments to regular payments. Bonuses and penalties may also apply under user-pays contracts.

**Iossa et al** [#7, pages 46-47] provide an overview of performance-based payments. The **Scottish Government note on designing payment mechanisms for PPPs** [#16, pages 9-13] emphasizes the need to "calibrate" the payment mechanism—that is, to check the financial impact of penalties under different possible combinations of under-performance. The model contracts in Table 3.4.1 provide further examples of the use of bonuses or penalties. For example, the **United Kingdom's standardized PPP contracts** include a chapter on payment mechanisms [#17, chapter 7], which also describes calibration of penalties and bonuses based on financial analysis.

## 3.4.3 Adjustment Mechanisms

PPP projects are long-term, and are often risky and complex. This means PPP contracts are necessarily incomplete—that is, they cannot fully specify all future possibilities. The PPP contract therefore needs to have flexibility built in—to enable changing circumstances to be dealt with as far as possible *within* the contract, rather than resulting in re-negotiation or termination.[89]

Adjustment mechanisms typically aim to create a clear process and boundaries for change. They can include mechanisms for dealing with the following:

- **Changes to tariff or payment rules or formulae**. Tariffs or payments are often specified by formulae, as described in Section 3.4.2, to allow regular adjustments for factors such as inflation. The PPP contract could also build in mechanisms for reviewing these formulae—whether periodic, or one-off changes in extraordinary circumstances (with specified triggers). **Castalia's Key Contract Provisions** note [#10, volume 1, pages 24-30] provides guidance on dealing with periodic, extraordinary, and emergency tariff reviews.

89. Module 1 of this Reference Guide, Section 1.1.3.3: PPP Limitations and Pitfalls—Failure to Achieve Competitive Tension describes how renegotiation can undermine value for money.

- **Refinancing**. When the PPP is being implemented, changes to the project risk profile or in capital markets may mean the PPP company can replace or renegotiate its original debt on more favorable terms. As described in **Module 1, Section 1.3: How PPPs Are Financed**, many PPP contracts set out rules for determining and sharing the gains from refinancing. For example, as of 2007 the United Kingdom**'s standardized PFI contract** [#17, Chapter 34] specifies a 50:50 split of any refinancing gain between the investors and the government.[90] The **EPEC Guide to Guidance on PPPs** [#1, page 35] also provides a succinct summary of how refinancing can be treated in the PPP contract

- **Changes to service requirements**. It may be difficult for the contracting authority to accurately anticipate service requirements over the duration of the contract. Contracts typically build in approaches for handling changes to service requirements, in response to changing circumstances (which could also include changing technology). For example the **Hong Kong PPP Guide** [#18, pages 68-71] describes how changes in circumstance can be dealt with. The **South Africa standardized contract provisions** [#11, Part K:50] provide for four categories of variation: variations with no additional cost; small works variations; "institutional" variations (changes in service requirements); and variations requested by the private party.

As described in the **EPEC Guide to Guidance** [#1, pages 37-38], the administrative arrangements and processes for handling change are often further defined as part of the contract management framework and materials (see **Section 3.7.1: Establishing Contract Management**). While rules and processes can be specified for changes, room for discretion is likely to remain. The contract therefore needs to define a process that gives both public and private parties confidence that their interests will be respected. For example, the **Castalia Key Contract Provisions** accompanying note [#10, volume 1, pages 24-30] describes how expert panels can play a helpful role in extraordinary tariff reviews.

## 3.4.4 Dispute Resolution Mechanisms

Because PPP arrangements are long-term and complex, contracts tend to be incomplete, as described in Section 3.4.3. Where this creates room for differences in interpretation, disputes can arise. Defining a dispute resolution process helps ensure disputes are resolved quickly and efficiently, without interruption of service—reducing the risk of disruption due to disputes to both the public and private parties. Dispute resolution mechanisms can be built into the PPP contract. Some governments define dispute resolution mechanisms in PPP legislation, to apply to all PPP contracts.

As described by **Kerf et al** [#8, Section 3.10] dispute resolution mechanisms for PPP can include the following:

---

90. This has since been revised to a 70:30 split in favor of the Government, as described in United Kingdom House of Lords Select Committee on Economic Affairs (2nd Report of Session 2009-2010) *Government Response to Private Finance Projects and Off-Balance Sheet Debt* (April 2010) HLPaper 114, Paragraph 174.

- **Recourse to a sector regulator**, where applicable. As described in **Module 2**, **Section 2.5: legal and regulatory framework**, PPPs are often used in sectors that are also subject to a sector regulatory regime, under an independent regulator. In this case, the regulator can be assigned responsibility for resolving certain disputes. This is a relatively simple and so low-cost option, but can be risky for the private party, particular where there are concerns over regulator independence or capacity

- **Judicial system**—generally, contractual disputes are subject to jurisdiction of the courts, and the same is typically true of PPP contracts. However, parties to PPPs often consider the court system as inappropriate for solving disputes, since it may be slow, or lack technical expertise—particularly in developing countries. Dispute resolution mechanisms for PPPs often try to avoid resorting to the court system as far as possible, particular

- **Panel of experts as arbitrators**—the contract or law, could designate a panel of independent experts, to act as arbitrators in case of dispute. Decisions could be defined as non-binding (in which case a further escalation mechanism is required), or binding

- **International arbitration**—the last resort for many PPPs is international arbitration, which can be under a permanent arbitration institution such as the International Centre for Settlement of Investment Disputes (ICSID),[91] or involve an ad-hoc arrangements such as an international expert panel.

More than one of these approaches may be used; to allow for escalation of disputes should simpler methods fail. For example:

- **Chile concessions**. The dispute resolution mechanism for PPP contracts in Chile was established in the Concessions Law, and centers on the role of an independent panel of experts, as set out in **Jadresic's review of Chile's experience with expert panels** [#19, pages 25-26]. A conciliation panel of experts is established for each contract, comprising three experts—one chosen by the government, one by the private party, and a third by mutual agreement. The conciliation panel may be called on to propose conciliatory terms to resolve disputes, for agreement by the parties. If agreement cannot be reached, the private party can either request the conciliation panel become an arbitration panel (and reach a binding decision), or refer to the court system

- **Bucharest Water Service Concession**. The dispute resolution mechanism is defined in the PPP Contract.[92] It involves an economic regulator, a technical regulator housed in the municipal government, with recourse to an international panel of experts in case of appeal

- In **Mexico**, the **Federal Law on Acquisitions, Leases and Services (2000)**[93] sets out the procedures for conflict resolution during the implementation of the PPP contract. The

91. See the ICSID website, http://icsid.worldbank.org/ICSID/Index.jsp, for more information and examples of international dispute settlements.

92. Castalia (2010) *Evaluation of the Bucharest Water and Wastewater Concession-Final Report to the IFC*, pages 21-22, 33, and 33-42.

93. Government of Mexico (2000) *Ley de Adquisiciones, Arrendamientos, y Servicios del Sector Público*, published 4 January 2000.

*Secretaría de la Función Pública* is the organization in charge of handling these processes. The law states that interested party must request for dispute resolution support from the Secretary. The Secretary facilitates a dispute resolution meeting. Any agreements reached through this procedure will be binding, and the parties involved must produce a report showing the progress made in implementing the agreement reached.

The standardized contracts listed in **Table 3.4.1: Examples of Standardized PPP Contracts and Contract Clauses** provide further examples of dispute resolution clauses and options.

## 3.4.5 Termination Provisions

In most cases, PPP contracts have a defined term.[94] The contract typically sets out the contract termination date, as well as arrangements for contract close and asset handover. The PPP contract should also specify circumstances in which the contract may be terminated early, and consequences of termination in each case.

### 3.4.5.1 Contract term and asset handover

The PPP contract typically defines the contract term, and arrangements for any hand back of project assets to the government. The most common approach is for the government to choose the contract term, in the draft contract, as the best estimate of the time needed for the private party to achieve its required return, at reasonable tariffs or payment levels. A second option, with a similar result, is to define tariffs or annual payments, and enable the contract length be determined by bidders as one of the key bid variables. This approach was used, for example, in Mexico's toll road program, where concessions were awarded to the bidder offering the shortest term.[95]

A third alternative is to let the length of the concession be determined endogenously, as described by **Kerf et al** [#8, page 83], by inviting bids on the basis of the least present value of revenue (LPVR). This means the concession terminates when that value is reached—the higher the traffic, the sooner the concession terminates. This approach was set out by **Engel, Fischer and Gelatovic**[96] as a way to manage the risk of fixed-term concessions, and has been used for toll roads in Chile and Peru.

**Kerf et al** [#8, pages 81-82] and **Iossa et al** [#7, pages 73-78] both describe the trade-off between a shorter concession term—enabling the government to go back to the market to re-tender the concession—against the disincentive this can create for concessionaires to invest, particularly towards the end of the concession.

---

94. Variable term contracts are an exception—in which the term varies to enable the private party to achieve a specified level of revenue (defined in net present terms at the start of the contract).

95. See for example Fisher and Babbar, *Private Financing of Toll Roads,* World Bank RMC Discussion Paper Series 117, pages 7-8.

96. Engel, Fischer and Galetovic (1997*) Privatizing Roads—A New Method for Auctioning Highways,* World Bank Public Policy for the Private Sector Note No. 112.

Given this disincentive, PPP contracts need to clearly define the approach to transition of assets and operations at the end of the contract. This typically includes defining how quality of the assets will be defined and assessed, whether a payment will be made on asset handover, and how the amount of any payment will be determined. It can be particularly challenging to define handover standards at the start of a long-term contract. The following resources describe some possible approaches:

- **The World Bank's toolkit for PPPs in roads and highways** [#2, Module 5, Stage 5] section on hand back of facilities at contract end describes how asset standards at hand back can be defined in terms of the remaining useful life of different parts of the asset
- **Australia's standard commercial principles** [#20B, pages 120-124] specify use of an independent assessor, appointed near the end of the contract term, to assess the quality of the assets, and define the required "handover condition"
- **EPEC Guide to Guidance** [#1, page 42] describes how bonds or guarantees can be used to ensure asset quality at handover.

### 3.4.5.2 Provisions for early termination

The PPP contract needs to set out the conditions under which the contract may be terminated early, in which case the ownership of the project assets typically reverts to the private party. This includes who may terminate and for what reason, and what if any compensation payment will be made in each case.

There are three broad possible reasons for early termination: default by the private party, termination by the public party, whether due to default or for reasons of public interest, and early termination due to some external reason (*force majeure*). In each case, the government typically makes a payment to the private party, and takes over control of the project assets (which may be re-tendered under a new PPP contract). Contractually-defined termination payments typically depend on the reason for termination, as summarized in Table 3.4.2.

Some of these approaches to defining the termination payment—particularly when linked to the value of the project assets—require careful definition.

The following resources provide more guidance on termination causes, arrangements, and payments:

- **EPEC Guide to Guidance** [#1, pages 40-42] describes each of these causes of termination and the options for defining termination payments in each case
- **Yescombe** [#15, pages 279-288] also describes termination causes and options for termination payments, in greater detail

- **Ehrhardt and Irwin** [#21, pages 46-49] note that many PPP termination clauses protect lenders from any losses (that is, do not allow the PPP company to go bankrupt)—they describe why this can cause problems, and how bankruptcy could be a realistic option
- **Clement-Davies on PPPs in Central and Eastern Europe** [#22, page 46] provides more information on lenders' step-in rights.

The standardized contracts listed in Table 3.4.1: Examples of Standardized PPP Contracts and Contract Clauses also provide further examples of termination clauses in practice.

Notwithstanding careful provisions in the contract, early termination is typically costly for both parties, and is a last resort when other avenues have been exhausted. As described in the **EPEC Guide to Guidance** [#1, page 40], this means the contractually-defined termination payments are important even if termination does not happen, since it defines the "fallback" position of each party in any dispute resolution or renegotiation.

Early termination payments are usually tailored in such a way that debt providers have always an interest in keeping the contract alive and services operational, inducing them to "step-in" before issues of poor performance lead to default by the private party.

**Table 3.4.2: Types of Early Termination and Termination Payments**

| Termination | Typical Triggers | Defining Termination Payment |
|---|---|---|
| Private party default | Failure to complete construction<br>Persistent failure to meet performance standards<br>Insolvency of project company<br>Lenders are typically given "step-in rights" to enable them to remedy problems due to an under-performing contractor—termination only occurs if this is ineffective, or if lenders choose not to do so | Termination payments are typically defined to ensure equity-holders bear the burden of default. Lenders may also be exposed to some possible loss—to strengthen their incentives to rectify problems—although this can affect bankability. Options include:<br>Full value or a specified proportion of outstanding debt<br>Depreciated book value of assets<br>Net present value of future cash flows (subtracting costs of termination)<br>Proceeds of re-tendering the concession on the open market—thereby also overcoming the possible difficulty of finding budget space for termination payment obligations that realize unexpectedly |
| Public party default | Public party fails to meet its obligations under the contract | A fair contract should ensure the private party does not lose out if the public party chooses to default. Termination payments in this case are typically set to the value of debt **plus** some measure of equity, and may also include lost future profits (if any) |
| Termination for public interest | Many PPP or public procurement laws allow the contracting entity to terminate for reasons of public interest | Typically should be the same as for public party default, otherwise creates perverse incentives to voluntarily terminate instead of default (or vice versa) |
| Prolonged *force majeure* damage | Should be carefully defined in the contract, and limited to uninsurable, prolonged force majeure events that preclude performance of obligations | Typically in between the two options above, since neither party is at fault |

| Key References: Designing PPP Contracts | | |
|---|---|---|
| Reference | | Description |
| 1 | European PPP Expertise Center (2011) *The Guide to Guidance: How to Prepare, Procure, and Deliver PPP Projects*, European Investment Bank | Section 2.2.5 on "prepare the draft contract" briefly describes typical contract content; Box 3 provides more detail on defining payment mechanisms<br>Section 4 on Project Implementation describes dealing with change within the contract, dispute resolution, and termination |
| 2 | PPIAF (2009) *Online Toolkit for Public Private Partnerships in Roads and Highways*, World Bank | Module 4: Laws and Contracts section on "contracts" describes PPP contract types, and describes typical contract contents and provisions, including sample "boiler plate" clauses. The section on "agreements, bonds and guarantees" describes other common elements of the contractual structure, including agreements with lenders |
| 3 | World Bank online PPP Infrastructure Resource Center: http://ppp.worldbank.org/public-private-partnership/content/agreements | This website hosts a collection of actual PPP contracts and sample agreements for a range of contract types and sectors |
| 4 | Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets*, PPIAF, World Bank | Chapter 4 on "selecting projects" includes a section on specifying output requirements, and defines and provides examples of "SMART" output specifications |
| 5 | Government of Hong Kong Efficiency Unit (2007) *A User Guide to Contract Management* | Guide to contract management, in the context of outsourcing services. Includes several sections relevant to designing PPP contracts, including developing service specifications, and dealing with termination and dispute resolution |
| 6 | MOD, Private Finance Unit (2010) *Output-Based Specifications for PFI / PPP Projects Version 0.2. Consultation Draft*, United Kingdom | Provides detailed guidance on output-based specification, and a process for developing the specification for a PPP project |
| 7 | Iossa, Spagnolo, and Vellez (2007) *Contract Design in Public-Private Partnerships*, World Bank | Provides guidance on several elements of contract design, including risk allocation, designing the payment mechanism, building in flexibility and avoiding renegotiation, contract duration, and other contractual issues to do with dealing with change |
| 8 | Kerf, Gray, Irwin, Levesque, and Taylor, under the direction of Michael Klein (1998) *Concessions for Infrastructure: A guide to their design and award*, World Bank Technical paper no. 399, World Bank and Inter-American Development Bank | Section 3 "Concession Design" provides detailed guidance on designing PPP contracts, focusing on contracts in which the private party provides services directly to users. Topics covered include allocating responsibilities, price setting and adjustment, performance targets, penalties and bonuses, termination, dealing with unforeseen changes, and dispute settlement |
| 9 | 4ps and Chris Wright (2005) *Review of Operational PFI and PPP Projects*, 4ps | Summarizes the results of interviews with stakeholders in operational PPP projects in the United Kingdom. Includes sections with lessons learned on output specification, payment mechanisms, and contract flexibility |
| 10 | Castalia (2004) *Key Contract Provisions in Long-Term PPP in the Water and sanitation Sector:*<br>*Volume I: Main Report*<br>*Volume II: Sample Provisions*<br>*Volume III: Summaries of Contracts Reviewed* | Documents ten cases of water and wastewater concession contracts from around the world—includes Bucharest (Romania), Guayaquil (Ecuador), Manila (Philippines), New Jersey (USA), Thames Valley (United Kingdom), and Vanuatu—to provide guidance on good practice for designing contracts in future |

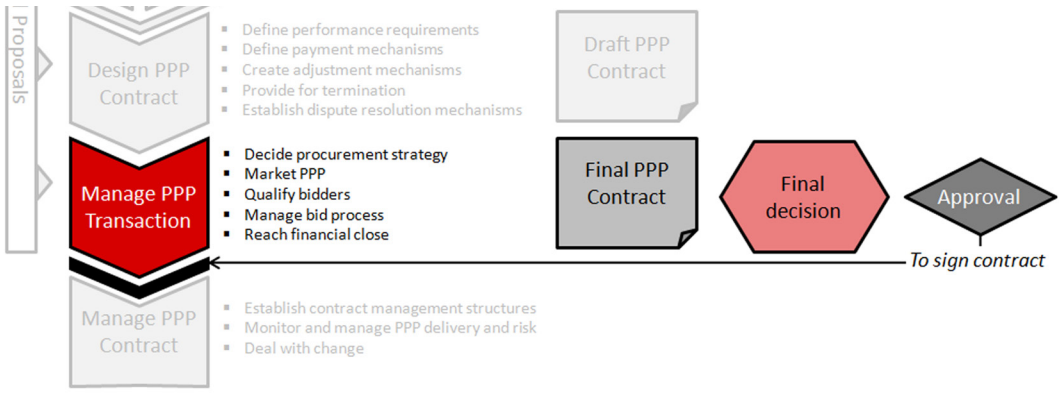
| Key References: Designing PPP Contracts | | |
|---|---|---|
| Reference | | Description |
| 11 | National Treasury, PPP Unit, Government of South Africa (2004) *Public Private Partnership Manual. Module 6* and *Standardized Contract Provisions* Government of South Africa | Module 6 of the manual, on "managing the PPP Agreement" briefly outlines how performance requirements, monitoring and enforcement mechanisms should be established.<br>The Standardized PPP Provisions set out and explain key provisions across all elements of the PPP Contract |
| 12 | The Scottish Government (2004) *Output Specifications—Building our Future: Scotland's School Estate*, The Scottish Government | Sets out model output specifications for schools PPP projects as well as some guidance on key issues in defining output-based specifications |
| 13 | World Bank and PPIAF (2006) *Approaches to Private Sector Participation in Water Services: A Toolkit*, World Bank | Section 6.3: designing risk allocation rules describes several aspects of PPP contract design for user-pays PPPs—including payment mechanisms, and termination clauses. Section 7 on developing institutions to manage the relationship includes a discussion on dispute resolution |
| 14 | Irwin (2003) *Public Money for Private Infrastructure: Deciding When to Offer Guarantees, Output-Based Subsidies, and Other Fiscal Support*, World Bank Working Paper No. 10 | Describes different payment mechanism for subsidies to infrastructure projects—including output-based payments and upfront capital subsidies—and how the government can decide which is most appropriate |
| 15 | Yescombe (2007) *Public-Private Partnerships: Principles of Policy and Finance*, Butterworth-Heinemann [ISBN: 978-0-7506-8054-7] | Chapter 13: Service-fee mechanism describes the different possible payment mechanisms (focusing on government-pays PPPs) and their implications for risk allocation and bankability.<br>Chapter 15: Changes in Circumstances and Termination describes mechanisms to deal with changing costs and risks (compensation and relief events), step-in and substitution, and termination payment provisions for different causes of termination |
| 16 | Scottish Government Financial Partnerships Unit (2007) *Briefing Note 1: Payment Mechanisms in Operational PPP Projects* | Describes experience with defining and implementing government-pays payment mechanisms in PPPs |
| 17 | HM Treasury (2007) *Standardization of PFI Contracts Version 4*, HM Treasury, United Kingdom | Provides detailed guidance and standard wording where appropriate on every aspect of the PPP contracts used for United Kingdom PFI PPPs (predominantly user-pays). The website http://www.hm-treasury.gov.uk/ppp_standardised_contracts.htm provides additional materials, including marked up versions showing changes made to previous versions |
| 18 | Government of Hong Kong Efficiency Unit (2008) *An Introductory Guide to Public Private Partnerships (PPPs)* Second Edition | Section 9: Changes of Circumstance provides guidance on the types of changes that the PPP contract should be able to deal with |
| 19 | Jadresic (2007) *Expert Panels in Regulation of Infrastructure in Chile*, PPIAF Working Paper No. 2 | Describe the expert panel approach used in Chile to deal with regulatory conflict. Section 6 focuses on the use of expert panels in public works concession contracts |
| 20 | Government of Australia *National PPP Guidelines:*<br>*(A) Roadmap for applying the Commercial Principles*<br>*(B) Volume 3: Commercial Principles for Social Infrastructure*<br>*(C) Volume 7: Commercial Principles for Economic Infrastructure* | Set out why and how key risks and responsibilities should be allocated in the contract, for social infrastructure (government pays) and economic infrastructure (user pays). The roadmap document describes the process of developing the contract, and provides guidance on deciding which set of commercial principles to use |
| 21 | Ehrhardt and Irwin (2004) *Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy towards Leverage, Risk Allocation, and Bankruptcy*, World Bank Policy Research Working Paper 3274, April 2004 | Describes the problems associated with protecting lenders from losses in case of termination due to private party default, and provides some policy suggestions for alternatives |

| Key References: Designing PPP Contracts | | |
|---|---|---|
| Reference | | Description |
| 22 | Clement-Davies (2007) *Public-Private Partnerships in Central and Eastern Europe: Structuring Concessions Agreements* In *Law in Transition,* European Bank for Reconstruction and Development (EBRD), 2007, Pages 38-50 | Discusses some of the main issues in developing concession agreements in transition countries—including risk allocation, tariff structure, performance standards, dealing with change, termination and step-in rights for lenders |
| 23 | Cassagne (1999) *El Contrato Administrativo* (*Administrative Contracts*) Lexis-Nexis Abeldo-Perrot, Buenos Aires [ISBN: 9502012062/978-9502012063] | Provides a detailed account of public contracts, and a framework for creating them—guidance that can also be applied to designing PPP contracts. Focuses on the role of a public contract, procedures for public contracting, the effects of executing a contract, public participation in public contracting and the procedures for terminating a contract |
| 24 | Ortiz and Cassagne (2004) *Servicios Públicos, Regulación y Renegociación* (*Public Services, Regulation and Renegotiation*) Lexis-Nexis Abeldo-Perrot, Buenos Aires [ISBN: 9502016130/978-9502016139] | Describes regulatory reform in public services, including achieving regulation through effective PPP contracts. Includes guidance on mechanisms for tariff changes, and for dispute resolution |
| 25 | Souto (2004) *Direito Administrativo das concessões* (*Administrative Law Concessions*) Lumen Juris, Rio de Janeiro [ISBN: 978-8573874570] | Describes the legal framework for concessions in Brazil, and its implications for PPP contract design |

# 3.5. Managing PPP Transactions

In the transaction stage, the government selects the private party that will implement the PPP. This stage follows the structuring, appraisal, and detailed preparation of the PPP described in the previous sections of this Module.[97] It concludes when the PPP reaches financial close—that is, when the government has selected and signed a contract with a private party, and the private party has secured the necessary financing and can start deploying it in the project.

**Figure 3.5.1: Transaction Stage of PPP Process**




97 In practice, there is usually overlap between the design of the draft PPP contract and the implementation of the PPP transaction. Some of the possible activities in the PPP transaction—particularly, consultations with potential bidders prior to formally requesting proposals—can generate information that feeds into the draft PPP contract.

The aim of the PPP transaction stage is to select a competent firm or consortium, with a sound technical solution for the proposed project, which offers value for money for the government and users. This generally requires a competitive, efficient, and transparent procurement process, as set out for example in the **PPIAF Toolkit for PPPs in Roads and Highways** Procurement section [#1] under "competitive bidding", and by **Farquharson et al** [#2, page 112] in describing the outcome of the procurement phase.

Most governments use a competitive selection process to procure PPP contracts, as the best way to achieve transparency and value for money. This section therefore assumes a competitive process is followed. In practice, there may be a few circumstances where direct negotiation could be a good option; on the other hand, many reasons put forward to negotiate directly are spurious, as described in **Box 3.5.1**. Direct negotiation is also commonly considered in the context of receiving an unsolicited proposal for a PPP project (see **Section 3.5: Managing PPP Transactions**).

**Box 3.5.1: Competitive Procurement or Direct Negotiation**

A competitive selection process is typically recommended to procure PPP contracts. Key advantages are transparency, and use of competition to choose the best proposal—the mechanism most likely to result in value for money. The alternative to a competitive process is to negotiate directly with a private firm. This is most commonly—but not exclusively—considered in the context of receiving an unsolicited proposal for a PPP project from a private sponsor.

There can be good reasons to negotiate directly, but these are relatively few—see for example **Kerf et al's guide to concessions** [#3, pages 109-110] or **World Bank water sector PPP toolkit** [#4, page 170] sections on direct negotiation. These good reasons can include:

- Small projects, where the costs of a competitive process would be prohibitively high given level of expected returns
- Cases where there is good reason to believe there would be no competitive interest—for example, extensions of an asset for which a contract is already in place
- Need for rapid procurement in the case of emergencies and natural disasters, where speed may outweigh value for money considerations

On the other hand, several reasons commonly put forward to negotiate directly with a private proponent of a PPP can be misleading—see for example **PPIAF's toolkit for PPPs in Roads and Highways** [#1] Module 5 Procurement section on "overall principles for procurement". For example, some argue negotiation is faster—although ultimately, challenges in and to the process can often mean it ends up taking longer. Direct negotiation is also sometimes considered when a private company comes up with a PPP idea—although there are ways to introduce competition in this case, described in **Section 3.5: Managing PPP Transactions.**

Based on these considerations, some countries do not allow non-competitive procurement processes at all (such as **Brazil**, under the Federal PPP Law of 2004 [#21]). Elsewhere, direct negotiation may be allowed in particular circumstances. For example, **Puerto Rico's PPP Act** also allows for direct negotiations if investment value under US$5 million, there is lack of interest after issuing an RFP, the normal procurement process is burdensome, unreasonable, or impractical, or the technology required is only available from a single company [#32, Article 9.(b).ii]

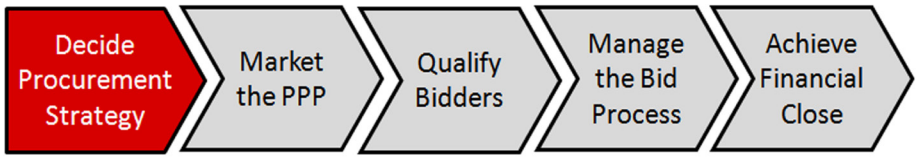
**Figure 3.5.2: Transaction Steps**


The transaction stage typically includes the following five steps, as shown in Figure 3.5.2:

- Deciding on a procurement strategy, including the process and criteria for selecting the PPP contractor. Many governments choose to define some elements of procurement strategy in procurement or PPP-specific law—others may be project-specific
- Marketing the upcoming PPP project, to interest prospective bidders (as well as potential lenders and sub-contractors)
- Identifying qualified bidders through a qualification process. This may be done as a separate step before requesting proposals, or may be part of the bidding process
- Managing the bid process, including preparing and issuing a Request for Proposal, interacting with bidders as they prepare proposals, and evaluating bids received to select a preferred bidder
- Executing the PPP contract, and ensuring all conditions are met to reach contract effectiveness and financial close. This may require gaining final approval of the contract from government oversight agencies.

Sections 3.5.1 to 3.5.5 describe each of these steps, and provide further resources and tools for practitioners interested in managing PPP transactions.

## 3.5.1 Deciding the Procurement Strategy




The first step in managing a PPP transaction is defining the procurement strategy. This includes defining the following aspects of the procurement process:

- **Pre-qualification**—whether to use a pre-qualification process to select the firms or consortia that will participate in the bidding process
- **Bid process**—whether to use a single-stage process to select the preferred bidder, or a multi-stage process, in which proposals and the bidding documents may be reviewed and iterated
- **Negotiation with bidders**—to what extent discussions with bidders may lead to changes in the initial draft contract: either during the bidding process (with multiple bidders), or after final bids have been submitted
- **Basis for award**—whether to rank proposals and choose the preferred bidder based on a single financial or value-related criterion (after screening for technical merit), or some weighted evaluation of financial and technical criteria.

This section briefly describes each of these aspects, with links to guidance, resources and examples in each case. An additional point for consideration, also described in this Section, is **Dealing with bid costs**—whether to charge a fee or require a bond to participate in the bid process; or conversely whether to provide support with bid costs.

## Goals of the procurement strategy

The overall objective of the PPP transaction is to select a competent firm or consortium, with a sound technical solution for the proposed project, which offers value for money for the government and users. Other objectives are to run a fair, competitive, transparent, and efficient procurement process.

However, there may be trade-offs between these objectives, and different objectives may be more important in some contexts than others. For example, allowing extensive dialogue with bidders during the bid process can lead to stronger proposals, as described in Section 3.5.1.3. However, it can also make the process less transparent—so may not be the right choice in a country where achieving transparency and minimizing the risk of corruption is the more important consideration.

This means the best procurement process may depend on the country context, and the nature and capacity of the government institutions involved, as well as on the characteristics of the particular project. These trade-offs are described in the relevant sections below.

## Procurement rules

Many governments define rules and processes that all government procurements must follow. These rules may be set out in procurement law or regulations. Obviously, procurement strategy for PPP projects may be limited by general procurement rules.

Where the project involves funding from a multilateral development bank or other agency, the procurement options also may be constrained by the procurement rules of the funding agency. For example, the World Bank publishes and regularly updates its **Guidelines: Procurement of Goods, Works, and Non-Consulting Services** [#5], which any project with World Bank funding must follow. The World Bank has not published specific guidelines for procurement of PPPs—Clause 3.14 of these guidelines states that for PPP projects, "open competitive bidding procedures determined acceptable by the Bank" should be used.

## PPP-specific procurement rules

Many governments also choose to set PPP-specific procurement rules, in PPP laws, regulations or guidance material—that is, defining the procurement strategy for the PPP program as a whole, rather than on a project-by-project basis. Table 3.5.1 provides examples of PPP procurement procedures as defined in national or international laws and regulations.

**Table 3.5.1: Examples of PPP Procurement Procedures**

| Example | Reference | Pre-qualification | Bid Process | Negotiations with Bidders | Basis for Award |
|---|---|---|---|---|---|
| Brazil | Federal Concessions Law (Law 8987, 1995) [#20] and Federal PPP Law (Law 11079, 2004) [#21] | No mandatory pre-qualification step | One-stage bid process | No language in law about negotiations with bidders during tender | Lowest tariff or largest payment to government or a combination of the two. If tied, implementing agency must hire Brazilian company. |
| Chile | Concessions Law (Law 20410, 2010) [#22] | Pre-qualification based on any of five elements stated in the law: legal compliance, technical and financial experience, results of previous public works, and compliance with labor and social security laws | One-stage bid process | No language in law about negotiations with bidders during the bid process. There guiding language on negotiations during implementation | Financial, or combined financial/technical |
| Egypt | Executive Regulations under PPP Law [#25] | Pre-qualification based on set compliance criteria | Can use one-stage process; or a two-stage process with technical and financial bids submitted at both stages. First-stage bids are "non-binding" | Competitive dialogue allowed in the two-stage procedure, before final bids are submitted | Financial, or combined financial/technical |

| Example | Reference | Pre-qualification | Bid Process | Negotiations with Bidders | Basis for Award |
|---|---|---|---|---|---|
| EU "open procedure" | Described in **EPEC Guide to Guidance** [#6, page 22]. **Ernst and Young paper on EU PPP procurement experience** [#8] describes which countries predominantly use which procedure | No pre-qualification | One-stage bid process | No negotiation or dialogue allowed with bidders; clarifications are permitted | Financial, or combined financial / technical |
| EU "restricted procedure" | | Pre-qualification—number of bidders may be restricted, to no less than five | One-stage bid process | No negotiation or dialogue allowed with bidders; clarifications are permitted | Financial, or combined financial/technical |
| EU "competitive dialogue" | | Pre-qualification—number of bidders may be restricted, to no less than five | Multi-stage bid process | Dialogue permitted on all aspects prior to submitting final bids. No further changes after final bids submitted (clarifications are permitted) | Combined financial / technical |
| EU "negotiated procedure" | | Pre-qualification—number of bidders may be restricted, to no less than five | On-going process of negotiation—no "final bid" | Allowed throughout the process | Financial, or combined financial/technical |
| Mexico | Law on Purchases, Leases, and Services to the Public Sector (2000) [#30] | No mandatory pre-qualification step | One-stage bid process | No language in law about negotiations with bidders during tender | Combination of technical and financial criteria[33] |
| Philippines | BOT Law Implementing Rules and Regulations [#31] | Pre-qualification set out as norm; agency may choose "simultaneous" qualification as an alternative | One-stage bid process | Direct negotiation with a single bidder is allowed, if only one firm qualifies and submits a complying proposal | Financial (following pass / fail qualification and technical criteria) |
| South Africa | South Africa PPP Manual Module 5: Procurement [#34] | Pre-qualification—the number of bidders "must be kept to a minimum of three and a maximum of four" where possible | Single stage process, unless there is no clear preferred bidder, in which case a "Best and Final Offer" (BAFO) stage may be added, to invite final bids. | Feedback from pre-qualified bidders strongly advised **before** issuing RFP. Clarifications only during proposal preparation and evaluation<br>Dialogue allowed with bidders prior to issuing request for BAFO | Combined financial, technical, and Black Economic Empowerment |

### 3.5.1.1 Pre-qualifying bidders

**Qualification** One of the aims of the procurement process is to select a competent firm, with the capacity to implement the project. The idea is to ensure that only well qualified firms are invited to bid, or that only well qualified firms will actually bid for the contract.

Many governments "pre-qualify" bidders—that is, check bidders' qualifications before the start of the tender process. Where no up-front qualification screening is done, firm

98. The method of awarding the contract to the technically compliant bid that offers lowest price is only applicable when it is not possible to use points and percentage or cost-benefit criteria.

qualifications are assessed when bids are received—sometimes called "post qualification".[99] Qualification may encourage well-qualified bidders to participate, and to invest in preparing quality proposals, as it reduces the risk that the bid process will be undermined by low-quality firms submitting very low bids.

**Pre-qualification and post-qualification** There are two broad approaches to pre-qualify bidders. The first is to set pass / fail qualification criteria, and qualify and invite proposals from all firms that pass. The second is to use pre-qualification to select a certain number of qualified bidders. In this case, potential bidders are typically ranked according to specified qualification criteria, and the top-ranking bidders—typically between three and six—invited to submit proposals.When time is a relevant variable (as it often is), pre-qualification with pass/fail criteria is not usual, as it does not allow for restricting the number of bidders□is such cases, time may be saved by checking qualification requirements when bidders present their proposals. This post-qualification implies that bidders will self-screen themselves: for complex projects, only highly qualified firms will prepare a costly proposal.

In a few cases, involving large and extremely complex projects (e.g. large tunnels or bridges), this self-selection will be so relevant (aided by the due-diligence that financing parties will exert upon prospective bidders) that no qualification is needed.[100] For most projects qualification is required, and it is done through pre-qualification when the goal is capping the number of bidders.

The main **advantage** of pre-qualification is that it limits the number of bidders. By reducing the number of bidders, the probability of success in a given tender increases, and so bidders may be incentivized to invest more effort in developing an efficient project and presenting a competitive bid. (But, of course, a too constrained number of bidders may reduce competition and incentivize collusion.)

The main **disadvantage** of pre-qualification is that tenders in a certain sector may always have the same firms being pre-qualified. This could enable collusive behavior. Pre-qualifying a set number of bidders, in particular, can mean the same top-ranking firms tend to be invited to bid for similar projects. Another disadvantage is that prequalification makes the entire transaction process take longer. In some developing countries (particularly with new PPP programs) the problem can be too few rather than too many bidders—in this case, there may be no advantage to pre-qualification, and it may unnecessarily extend the procurement process.

The following resources provide more discussion and detail on the pros and cons of pre-qualification:

---

99. The World Bank's procurement guidelines for PPP—summarized in a March 2010 presentation on *Procurement arrangements applicable to PPP contracts financed under World Bank Projects*—advocate carrying out a pre-qualification process, but do not allow the number of qualified bidders to be restricted. Some jurisdictions do not allow the number of bidders to be restricted through pre-qualification.

100. One such case is the procurement of high-speed rail infrastructure in Portugal□no qualification was required for a multi-stage tender that forced bidders to present complex projects (above one or two billion euro) and negotiate them with the procuring agency.

- **PPIAF's Toolkit for PPPs in Roads and Highways** [#1], which includes a section on "Concessions: Main Steps in competitive bidding"
- A **World Bank Technical Note on Procurement of Management Contracts** [#9, pages 9-21] describes the pros and cons, and how some of the problems of pre-qualification can be overcome
- **Farquharson et al** [#2, pages 118-120.] describes the pre-qualification process, some of its advantages and disadvantages, and the possible pitfalls. The authors also describe the option of a "pre-revision" phase, in countries where pre-qualification is not allowed by procurement law.

In practice, country approaches vary. For example, **Infrastructure Australia Practitioner's Guide** [#18, page 16] recommends using a prequalification stage to select a particular number of bidders—at least three, sometimes more. On the other hand, **Singapore PPP Handbook** [#33, page 60] states that the number of qualified bidders must not be pre-determined, because this would limit competition. **Table 3.5.1** provides more examples of PPP procurement processes, including whether and what type of pre-qualification process is included.

### 3.5.2.1 Bid process

The bid process is the process from issuing Requests for Proposals (RFPs), to selecting a preferred bidder. The quickest and simplest is a **single-stage bid process**, in which bidders present both technical and financial proposals, which are evaluated to select the preferred bidder.

The alternative is a **two- or multi-stage bid process**. Under this approach, bidders present an initial proposal, which may include comments on the RFP and draft contract, and may or may not include a financial bid. Based on these proposals, the government reviews and possibly revises the RFP and draft contract, and requests revised proposals accordingly. The government may engage in discussion with bidders to varying extent, as described in **Section 3.5.1.3: Negotiation with bidders**. The government may also eliminate some bidders at this stage, and the revision process may be repeated more than once. Bidders then submit final proposals, including a final financial bid.

A multi-stage process can have advantages over a single-stage process for complex projects, particularly where there is room for innovation. It can help ensure solutions are aligned to needs, and improve final quality of proposals. On the other hand, the multi-stage process is longer and more complex to manage. Care needs to be taken to retain competitive pressure, protect intellectual property, and maintain transparency.

The following resources provide more information on the bid process options:

- **Farquharson et al** [#2, pages 113-114] summarize the advantage of sequential screening over multiple stages—improving the quality of bids
- A **World Bank Technical Note on Procurement of Management Contracts** [#9, pages 22-33], which describes different bidding processes and their relative advantages
- **PPIAF's Toolkit for PPPs in Roads and Highways** [#1] section on "Concessions: Main Steps in competitive bidding" describes one- and two-stage bid processes.

Many countries leave open the decision of whether to use a single or multi-stage bidding process, depending on the nature of the project. Some also leave the option of asking for second bids open, as a means to resolve the problem of no clear bidder emerging from a single-stage process. For example, the **South Africa PPP Manual procurement module** [#34, Module 5, pages 51-52] states that a single-stage process with a clear winner is preferred, but that a "best and final offer" may be requested from two or more bidders. Table 3.5.1 provides further examples.

### 3.5.1.3 Negotiation with bidders

A major difference between procurement approaches in different countries is in the extent to which the government enters into negotiations with bidders. Negotiations could take place with multiple bidders, as part of a multi-stage bid process—a process sometimes called competitive negotiations. In other cases, governments may enter into negotiation with a single bidder, after a preferred bidder has been selected.

Negotiating at any stage can be challenging, and risk reducing the transparency of the bid process. For this reason, some governments do not allow negotiation on the contract at any stage of the process (although room for negotiation on bidders' proposals may remain).

#### Competitive negotiation

In a multi-stage bidding process (see **Section 3.5.1.2: Bid process**), the government may choose to dialogue or negotiate with multiple bidders in between bidding stages. This can help clarify aspects of the RFP, draft contract, and bidders' initial proposals, and result in proposals that more closely meet the government's requirements.

For example, in 2004 the European Commission introduced the "**competitive dialogue**" procedure for procuring PPPs in the EU. Under this process, having received initial bids, the government can enter into a dialogue with bidders on all aspects of the RFP, contract, or proposals, before re-issuing a final version of the RFP documents and inviting final bids. The United Kingdom **Treasury's guidance on the competitive dialogue procedure** [#10]

provides more details. In Australia, a similar process may be used, called an "interactive tender". The **Australian National PPP Practitioners' Guide** [#18, pages 70-71] describes the interactive tender process; protocols for the process are also provided in an appendix.

An **Ernst and Young paper on procurement procedures for PPP in Europe** [#8] describe the approach taken in practice, and compare when European countries use competitive dialogue, or use the "open" or "restricted" procedures described in Table 3.5.1. **Kerf et al** [#3, pages 110-112] provide further examples of competitive negotiations, and when it may be useful. The **World Bank's water sector toolkit** [#4, pages 169-170] also describes the advantages and disadvantages of this approach. In general, competitive negotiation has been used less in less developed countries.

## Post bid negotiation

Once a preferred bidder has been identified, governments may then enter into further dialogue with that bidder to finalize the PPP contract. If negotiating with a preferred bidder—even if a reserve bidder is maintained as a fallback option—the implementing agency can no longer rely on competitive tension to ensure value for money. For this reason, most governments limit the extent of post-bid interaction to clarification and fine-tuning of proposals; some do not allow it at all, particularly where transparency of the process is a primary concern. Table 3.5.1 provides some examples.

The need for post-bid negotiation typically arises for two reasons: because the RFP requirements or draft contract were not clear, or because they were not acceptable to bidders and their lenders (in particular, with respect to the proposed risk allocation). For either reason, bidders may incorporate changes in their proposals, meaning the proposals no longer fully meet the government's requirements. Some legal frameworks mitigate this issue by mandating that conditional proposals will be excluded.

The following resources provide more guidance on the problems with post-bid negotiations, and whether and to what extent to allow for negotiation or dialogue with a preferred bidder:

- **EPEC's Guide to Guidance** [#6, page 31] briefly describes what matters should and should not be subject to negotiation post-bid, and the typical elements of a negotiation framework
- **Yescombe** [#15, page 83] also describes on the risks of post-bid negotiations, and why they typically arise
- **Kerf et al's Guide for Concessions** [#3, page 123] focuses on the importance of limiting the extent of negotiation in the post-bid phase, and how this can be achieved.

The best way to avoid the need for post-bid negotiation is to prepare a clear and comprehensive RFP and draft contract. Market sounding and pre-RFP consultation with bidders, as well as

hiring experienced advisors, can help ensure the contract structure is acceptable to investors. For particularly complex contracts, the competitive negotiation procedure described above could be the best alternative.

### 3.5.1.4 Basis for award

The government needs to evaluate the proposals received, to rank the proposals and select the preferred bidder. The criteria for doing so typically include the technical merit of the proposal, and some measure of their cost—given the overall aim of achieving value for money, or the optimum combination of costs and benefits. There are two, broad options for how proposals will be evaluated and the preferred bidder selected:

- **Selection based on financial criteria**—one approach is to undertake the evaluation in two stages, with the final selection based on the financial bid variable(s). Under this approach, technical proposals are evaluated first, on a pass-fail basis—only bidders that pass the technical evaluation proceed to the financial evaluation. The winning bidder is selected on the basis of the best financial proposal, among those that passed the technical evaluation
- **Selection based on financial and technical criteria**—in some cases, proposals are evaluated based on a weighted combination of financial and technical criteria. This more closely encapsulates the idea of maximizing value for money. On the other hand, defining appropriate, quantitative criteria and how they will be weighted can be difficult and rely on subjective judgment by the evaluation team, which can undermine transparency of the tender process.

The following resources further describe these options, with examples:

- **PPIAF's Toolkit for PPPs in Roads and Highways**, in its "Concessions: Main Steps in competitive bidding" section, describes evaluation rules, financial evaluation criteria, and the multiple-parameter approach. This section also presents the evaluation criteria for 13 Latin American road concessions
- **Kerf et al Guide to Concessions** [#3, pages 118-123] has sections on technical and financial proposal evaluation. These describe choice of technical criteria and of financial criteria, and the pros and cons of a combined score approach, with examples in each case
- The **World Bank Technical Note on Procurement of Management Contracts**, [#9, pages 22-28] describes evaluation options—from least cost selection, to quality-based selection, and provides guidance on how criteria can be set and weighted in each case.

The best option, and the specific financial and technical criteria, may depend on project characteristics. It may also depend on the capacity of the public sector to undertake more

complex evaluations, or on the risk of corruption, or perceived corruption, which could make transparency the most important objective.

Many governments allow either approach to be used. For example, the **PPP Guidelines for Mauritius** [#28, Section 8.6, pg. 67-68] allows the project procurement team for evaluations of both the technical and financial considerations, or on price alone with pass/fail criteria for the technical evaluation. In **Brazil**, both the Federal Concessions Law (for user-pays PPPs) [#20 Article 15] and the Federal PPP Law (for government-pays PPPs) [#21 Article 12] allow both approaches. In all cases, the approach and criteria should be set in advance, and clearly communicated to potential bidders. **Section 3.5.4: Managing the Bid Process** provides more guidance and resources on selecting the specific evaluation criteria.

### 3.5.1.5 Approach to bid costs and payments

Preparing a proposal for a PPP project is typically an expensive exercise. Equally, running a high-quality procurement process for a PPP can have high cost to government. Governments have different approaches to dealing with bid costs and commitments.

Many governments require bidders to submit a **bid bond**, to ensure commitment to the process, and prevent the winning bidder from withdrawing without good cause. For example, the Philippines BOT law implementing regulations require a bid bond of between 1 and 2 percent of the estimated project cost [#31, Section 7.1 Clause b (vi)]. **Kerf et al's guide to concessions** [#3, page 126] provides further examples, and briefly describes the pros and cons of requiring a bid bond. The authors note, for example, that the United Kingdom government discourages the use of bid bonds for PPP projects, on the basis that they are expensive, and should only be sought in exceptional circumstances.

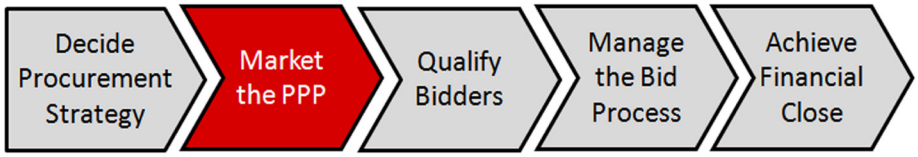
Governments have found different ways to deal with **bid preparation costs**. In some jurisdictions, the government may share bid costs, to encourage more bidders to participate. For example, **Australia's PPP practitioners' guide** [#18, page 29] states that bid costs may be reimbursed, but only in very limited and clearly defined circumstances. Conversely, Chile has a mechanism for asking pre-qualified bidders to jointly finance the engineering and other studies needed for the government to prepare for the transaction [#22]. This was an element of the reform to the PPP law that took place in 2010.[101]

A **KPMG review of PPP procurement in Australia** [#7] describes typical bid costs for the private party to a PPP in different countries. The report also draws on a survey of PPP practitioners to provide recommendations for how bid costs can be reduced. These recommendations focus on improving the efficiency of the PPP procurement process, as well as touching on the pros and cons of governments contributing to bid costs.

---

101. The 2010 reforms to Chile's Concessions Law are described in the *Historia de la Ley 20410 que modifica la Ley de Concesiones de Obras Públicas y otras normas que indica.*

## 3.5.2 Marketing the PPP




Marketing the PPP helps attract bidders and investors. This is particularly important in the early stage of a PPP program—governments need to make a positive effort to build bidder interest, to increase competitive pressure. Marketing also helps identify who might be the potential bidders. This can feed into designing qualification criteria to avoid a situation where no firms qualify—as described in **Kerf et al** [#3, p.114].

At a minimum, marketing the PPP requires **advertising the launch of the tender process**. Many governments have requirements for how PPP tenders should be advertised. For example, the **EPEC Guide to Guidance** [#6, page 27] notes that EU governments must publish a notice in the Official Journal of the European Union. The **South Africa PPP Manual** [#34, page 24] describes that the procurement must be advertised in the Government Gazette, on the institution's website, and through press advertisements.

Some governments take a more proactive approach to marketing, with a view to generating investor interest prior to the official project launch. This could include:

- Conducting investor presentations, meetings, or "road shows" to present the project. The scale and location of meetings can be tailored to the expected interested investors—for example, whether likely to be local or international
- Releasing "teaser" material about the project. This could include publishing material in industry publications, such as Global Water Intelligence, or dedicated project development platforms, such as Zanbato.[102] Box 3.5.2 describes an innovative approach to teaser material for a PPP project.

There is limited guidance material available on marketing PPP projects. **Farquharson et al** [#2, page 105] briefly describe the advantage of releasing information about the project prior to the formal launch, to attract bidder interest. They also describe the value of marketing a pipeline of projects, rather than a single opportunity. Particularly for new PPP programs, this gives investors a stronger incentive to engage.

102. See http://www.globalwaterintel.com/, or http://www.zanbatogroup.com.

**Box 3.5.2: Innovative Marketing—Video Teasers**
The **Corredor Bioceánico Aconcagua** (CBA) is a planned railroad uniting the Atlantic and Pacific Oceans, through Chile and Argentina. The CBA produced a video teaser—an innovative approach to project marketing. The video can be found at the following link: http://www.youtube.com/watch?v=aT2lER3lAyA. For more information on the CBA project, http://www.bioceanicoaconcagua.cl/corredorBioceanico/es/home.html

## 3.5.3 Qualifying Bidders


The next step may be to carry out a bidder pre-qualification process, to select the companies and consortia that will be invited to submit proposals. Not all countries select qualified bidders in advance, instead assessing qualifications as part of an open bidding process. The pros and cons the two approaches are described in **Section 3.5.1.1: Pre-qualifying bidders.**

This section describes the pre-qualification process. This process consists of preparing and issuing the Request for Qualifications (RFQ)—along with advertising the launch of the tender process, as described in **Section 3.5.2: Marketing the PPP**—and evaluating the information received to select a group of qualified bidders.

**Farquharson et al** [#2 pages 113-120] describes the purpose of pre-qualification, typical types of criteria and processes, and provides brief guidance on project launch. The **EPEC Guide to Guidance** [#6, page 27-28] also provides a helpful overview of the pre-qualification process.

### 3.5.3.1 Preparing and issuing the Request for Qualifications

For procurements that include a pre-qualification stage, the procurement process is officially launched when the Request for Qualifications (RFQ) is issued. The RFQ typically includes enough information on the project for potential bidders to decide whether they are interested, and information on how the project will be procured. It should also clearly set out the process and requirements for the qualification process.

Information on the project at this stage could include an overview of technical and service requirements, key commercial terms (although not typically a draft contract), and a list of

the further information that will be made available at the procurement stage. Information on the qualification process typically includes the qualification criteria (see **Box 3.5.3**), the information required from firms and the format in which that information should be presented, and the timeline and process for evaluation. The following resources describe further the typical content of RFQ documents:

- **South Africa PPP Manual** procurement module [#34, pages 23-24] outlines the content of the RFQ document. This includes information about the project, procurement processes, instructions to respondents, information required about bidders, and the evaluation process
- **Singapore's PPP Handbook** [#33, pages 56-60] lists RFQ contents, highlighting that it is not required to include the draft contract at this stage
- **Australia's National PPP Practitioners' Guide** [#18] calls the RFQ Expressions of Interest (EoI). Pages 11-14 list the content that Request for EoIs should include—background, project scope and timetable, financial and commercial information, evaluation criteria, general terms and conditions, and EoI response requirements
- The **World Bank's toolkit for concessions in highways** [#1] section on "prequalification" describes the information that should be included in the RFQ, and the information that should be requested from companies.

The following provide model, or example RFQ documents:

- **India Planning Commission Guidelines for PPPs: PreQualification of Bidders** [#26] includes a model RFQ, as well as guidance on the steps of a qualification process
- **World Bank Sample Bidding Documents for Management Contracts** [#9] include a sample RFQ
- **World Bank PPP in Infrastructure Resource Center** [#16] page on "Procurement Processes and Standardized Bidding Documents" http://ppp.worldbank.org/public-private-partnership/content/procurement-processes-and-standardized-bidding-documents includes a link to a draft RFQ for Power Purchase Agreements, and links to actual bidding documents, including RFQs.

Some governments require approval of the RFQ documents, before issuing the procurement notice as described in **Section 3.5.2: Marketing the PPP**. The procurement notice typically advises companies on how to obtain the RFQ package. Governments may also alert investors directly that the RFQ package is available.

## 3.5.3.2 Evaluating the information received to identify qualified bidders

Having received statements of qualifications from interested firms, the implementing agency (or the designated evaluation team) must evaluate those qualifications against the pre-defined qualification criteria. **Box 3.5.3** describes typical firm qualification criteria, with resources and examples. These criteria can be defined and applied on a pass/fail basis, or used to rank firms, and qualify a certain number. See **Section 3.5.1.1: Pre-qualifying bidders** for more on these two approaches.

Once the evaluation is completed, the implementing agency needs to inform both qualified firms or consortia, and those that have been unsuccessful. As described in the **South Africa PPP Manual procurement module** [#34, page 25], the list of qualified firms is typically published. The agency also needs to make sure it provides sufficient information on the decision to unsuccessful firms.

**Box 3.5.3: Firm Qualification Criteria**

One of the aims of the procurement process is to select a competent firm, with the capacity to implement the project. This means it is important to consider the qualifications of the firms behind each proposal. This can be done through a pre-qualification process to identify bidders, or as part of the first stage of the tender process (sometimes called "post qualification"). In either case, clear qualification criteria should be established before beginning the procurement process.

Firm qualification criteria can be quantitative or qualitative. They typically involve considering the sponsoring firms' financial robustness, previous experience with similar projects, and the experience of key members of the management team.

Careful selection of these criteria is important, to avoid excluding firms (for example, smaller firms) that could make good partners; or including firms that prove poorly-qualified. The following provide discussion and examples of firm qualification criteria:

**World Bank Technical Note on Procurement of Management Contracts** [#9, pages 12-21] describes in detail and gives examples of pre-qualification criteria designed to minimize errors of inclusion and exclusion

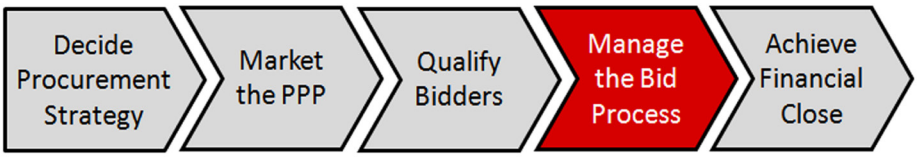
**Kerf et al Guide to Concessions** [#3, pages 115-6] gives examples of pre-qualification criteria and procedures used in a selection of PPP projects

**Australia National PPP Practitioner's Guide** section on "Evaluating Expressions of Interest" [#18, pages 60-62], which includes a detailed description of the criteria to be applied at the EOI stage

Pakistan's **Procurement Guidelines for PPP Projects** [#29, Chapter 3, pg. 8-9] provides three examples of evaluation criteria, bidder's capability and strength, deliverability, and project awareness

The **Philippines' Implementing Rules and Regulations** under the BOT Law [#31, Section 5.4], which describe three categories—legal requirements, experience or track record, and financial capability.

## 3.5.4 Managing the Bid Process




The central step of procuring PPP projects is generally managing the bid process. This may follow pre-qualification to select the participating bidders (although not always, as described in **Section 3.5.1: Deciding the Procurement Strategy**). The bid process ends with the selection of a preferred bidder, with whom the implementing then works to execute the contract and reach financial close.

The particular steps in managing the bid process will vary, depending on the bid process chosen, as described in **Section 3.5.1.2: Bid process**. This section describes and provides guidance on three key elements:

- Preparing and issuing Request for Proposal (RFP) documents
- Interacting with bidders during the bidding period
- Receiving and evaluating bids to select the preferred bidder—including dealing with problems such as receiving only one bid, or no fully compliant bids.

**Farquharson et al** [#2, pages 121-124] provides an overview of the bid process, and highlights some of the important points for implementing agencies to consider at this stage.

### 3.5.4.1 Preparing and issuing Request for Proposal documents

The bid process formally begins when the government issues Request for Proposal (RFP) documents to participating bidders. These documents set out the project structure and requirements, and the details of the bid process. High-quality, detailed, and clear RFP documents are important to ensuring a competitive process and a PPP that achieves value for money. RFP documents typically include the following:

- Information on the PPP project opportunity. This could include:
    1. An Information Memorandum describing the key features of the project and the commercial terms of the PPP
    2. Draft project agreements—that is, the output of the detailed PPP contract design process described in **Section 4**

3. Copies of any permits or approvals obtained for the project

4. A description of the detailed technical information amassed during the project preparation stage that will be provided to bidders in a data room (see **Section 3.1.1.1** for more on providing information to bidders).

- Information on the bid process. This could include:

1. Detailed bid rules and instructions to bidders, setting out the process and requirements

2. A timetable, which should build in enough time to allow bidders to prepare quality proposals

3. Evaluation criteria, as described in **Box 3.5.4**

4. Bid bond requirements (if any), as described in **Section 3.5.1.5: Approach to bid costs and payments**.

Table 3.5.2 provides international examples and guidance on preparing RFP or tender documents. For further examples, the **World Bank PPP in Infrastructure Resource Center** [#16] page on "Procurement Processes and Standardized Bidding Documents" http://ppp.worldbank.org/public-private-partnership/content/procurement-processes-and-standardized-bidding-documents includes a link to a draft RFP for Power Purchase Agreements, and links to actual bidding documents from PPP projects. The World Bank has also issued **sample bidding documents for output-and performance based road contracts** [#17], along with some guidance in foreword to the documents.

**Table 3.5.2: Examples and Guidance on Preparing RFP Documents**

| Jurisdiction | Reference | Description |
|---|---|---|
| Australia | National PPP Practitioners' Guide [#18, pages 17-22] | Describes in detail the content of the RFP |
| Brazil | Federal PPP Law (Law 11079, 2004) [#21, article 11] | Describes the minimum information that the tender documents must include. These are a draft PPP contract, the proposal guarantee required from the bidder (up to 1 percent of total contract amount), the conflict resolution procedures, and the guarantees that that government will make available to ensure its payments |
| Colombia | Law 80 (1993) General Statute for Procurement by the Public Administration [#23, Articles 14 and 30] | **Article 24** describes the information that PPP tender documents must include. This includes: requirements to be eligible to participate as a bidder, rules for preparing bids, cost and quality of goods, works and services needed to carry out the project, term of the contract, and bidder selection rules. **Article 30** sets out the tender process—including the rights and responsibilities of the actors involved, and deadlines and timeframes for each step |
| | Law 1150 (2007) Law to Introduce Efficiency and Transparency Measures in Law 80 of 1993 [#24, article 8] | Establishes that the contracting agency must publish a preliminary version of the tender documents. This is a non-binding activity—that is, the contracting agency is not forced to carry out the tender after publishing these preliminary documents |

| Jurisdiction | Reference | Description |
|---|---|---|
| India | Ministry of Finance Model RFP Document [#27] | Provides a full generic model RFP, intended for use by contracting authorities at the national level |
| South Africa | PPP Manual module on procurement [#34, pages 27-41] | Describes first how bidders can participate in finalizing the RFP; then describes in detail the content of the RFP |

### 3.5.4.2 Interacting with bidders during proposal preparation

After the RFP have been issued, bidders will prepare detailed proposals responding to the requirements of the RFP. During this process, the government needs to define how and to what extent it will interact with bidders as they prepare their proposals. Rules on the channels and permissible topics for interaction with bidders are usually set in the RFP—important for transparency.

At a minimum, this interaction typically involves providing information to bidders, and responding to requests for clarification on the RFP. In some cases, the government may consider updating the RFP documents as a result. Typical channels for these types of communication include:

- Data room, which can be a physical or virtual space, where bidders can find all available information that is relevant to the project
- Question and Answer iterations, where bidders submit questions in writing and the implementing agency responds in writing to all bidders (ensuring that all bidders have access to the same information)
- Bidder's Conferences, where the implementing agency presents the project and respond to questions from bidders.

Some governments impose limits on when clarifications can be sought, to avoid revealing information close to the bid deadline that could benefit some bidders over others.
The following provide more information and examples of these approaches to interaction with bidders:

- **PPIAF's Toolkit for PPPs in Roads and Highways** [#1] in its "Concessions: Main Steps in competitive bidding" section, describes what technical information should be available in the data room
- The **ADB PPP Handbook** [#14, page 71] presents a sample data room index
- **Australia's national PPP** practitioners' guide [#18, pages 24-25] briefly describes the use of a data room, and a query process

- The **Singapore PPP Handbook** [#33, pages 61-62] presents the type of information that will be exchanged during the "feedback period" when the RFP has been issued
- In Colombia, **Law 80 of 1993** [#23] states that, after distributing the RFP documents to pre-selected bidders, if any of the bidders requests it, the contracting agency should hold a meeting with bidders to clarify any questions they may have, and listen to their concerns and comments. Based on this meeting the contracting agency may incorporate changes to the tender documents or may extend the submission date up to six days.

As described in **Section 3.5.1.2: Bid process**, some governments use an "interactive tender" or "competitive dialogue" process, which involves more extensive engagement with bidders as they prepare their proposals. Under this type of process, bidders typically initially submit technical proposals, which are then the subject of feedback and discussion with the contracting authority, to refine the proposed solutions to meet the authority's needs, before submitting a final proposal. Some bidders may be dropped out of the process at different stages.

For more detail and guidance on this procedure according to EU regulations, see the **Government of the United Kingdom's guidance on the use of competitive dialogue** [#10]. **Australia's National PPP Practitioners' Guide** [#18, pages 70-71] describes how a similar, "interactive tender" process is typically used in Australia.

## 3.5.4.3 Receiving and evaluating bids to select the preferred bidder

**Section 3.5.1.4: Basis for award** briefly described the basis on which governments can select a preferred bidder. This section describes the process of receiving bids and evaluating them. Defining and carefully following a credible and transparent process is crucial at this stage, to inspire confidence in bidders, and minimize the risk of corruption. The section also describes some issues that may arise at the evaluation stage, such as what to do if only one bid is received; if no single bid is preferred or fully compliant.

## Receiving bids

A reliable and credible system to ensure bids are handled confidentially is important, to prevent any opportunity for bid-tampering, and to protect commercially sensitive information in bids.

Often bids are delivered in hard copy in sealed envelopes. Typically financial and technical bids are delivered in separate envelopes—financial bids are only opened for bidders that pass the technical assessment, and are often opened publicly to avoid any possibility of bid tampering. For example, the **Philippines BOT law rules and regulations** set out a two-envelope system for receiving bids [#31, Rule 7]. The World Bank **sample bidding documents for output-and**

**performance based road contracts** [#17, pages 19-21] also describe a sealed-envelope bid system, but allow for use of an electronic sealed bid system as an alternative. One advantage of an electronic system is that it prevents bidders from monitoring or interfering with physical bid delivery.

**Kerf et al's guide to concessions** [#3, page 124] describes open (voice) bidding in an auction as an alternative to sealed bids, although rarely used for infrastructure concessions. The authors note that voice bidding can be less likely to result in "winner's curse"—that is, the winning bidder significantly under-estimating costs—but on the other hand can enable collusive behavior, by making it easier to police.

**Dumol's diary of the Manila Water privatization by concession** [#11, pages 85-98] includes a detailed description of the process for bid submission and bid opening in practice.
Evaluating bids

As described in the **Partnerships Victoria Practitioners' Guide** [#19, pages 40-42], the evaluation process involves:

- Assessing bid completeness, and compliance with minimum requirements of bid process
- Assessing conformity with requirements of the project brief. The guide notes that conforming bids are evaluated before non-conforming bids—but that non-conforming bids may also be considered, particularly if no conforming bids are attractive (as described further below)
- Bid clarification, which can involve a bidder presentation and a Q&A session. The guide notes that this should not include any opportunity to change bids
- Detailed review by evaluation teams, following the pre-defined evaluation criteria. **Box 3.5.4** provides options and guidance for setting evaluation criteria
- Preparation of evaluation reports, detailing the process followed and the analysis of the evaluation teams. Comprehensive reporting is important to the transparency of the process. In some cases, bidders may be invited to formally comment on a draft report, with the evaluation team required to address comments in the final version.

**Partnerships Victoria Practitioners' Guide** [#19, Chapter 19.2] provides tips for evaluation, and lists what should be included in an evaluation report. **South Africa PPP Manual** Module 5: Procurement [#34, pages 45-51] also provides detailed guidance on how to evaluate bids, as well as describing South Africa's approach to defining evaluation teams.

**Box 3.5.4: Evaluation Criteria**

The selection of evaluation criteria can be key to ensuring the PPP provides value for money. Evaluation criteria should be decided in advance, and set out in the RFP documentation. Some countries specify evaluation criteria options in legislation. Evaluation criteria typically incorporate technical and financial elements. These may be evaluated separately—typically with a pass/fail technical evaluation, followed by ranking on financial criteria) or combined and weighted to rank bids (as described in **Section 3.5.1.4: Basis for award**).

The options for specific criteria depend on the nature of the project, as described (with examples) by **Kerf et al** [#3, pages 118-122]—for example, whether existing assets are involved, and whether the project will be user-pays or government-pays.

Many PPPs are ranked on the basis of a **financial criterion**, subject to passing other technical and financial requirements. The most common option for a financial evaluation criterion is the remuneration of the private sector. This could be the lowest tariff to users, or lowest cost to government (whether as a government-pays PPP, or subsidy in addition to user charges). The Least Present Value of Revenue criterion, introduced in Chile and Peru for toll roads, is another alternative, described by **Engel, Fischer and Galetovic** [#12]. Related criteria can include length of concession, or amount of investment.

Where technical requirements have been clearly set out in the proposal, **technical evaluation** requires checking compliance with those requirements. As **Kerf et al** [#3, page 118-119] describe, in some processes bidders are asked to submit project design, business, or investment plans, which are evaluated based on multiple criteria. The authors note the drawbacks of this approach—including the possible subjectivity of assessing plans, and the likelihood of plans changing substantially over the lifetime of the concession.

The following resources provide further guidance and examples on choosing evaluation criteria:

- **EPEC's Guide to Guidance** [#6, page 23] briefly discusses the criteria that could be used for bidder selection
- **Guasch** [#13, pages 97-105] describes the choice of award criteria, drawing on his extensive review of the factors leading to renegotiation in concession contracts in Latin America
- **The World Bank Toolkit for PPP in the water sector** [#4, pages 171-179] describes and provides examples of evaluation criteria options for awarding a user-pays PPP contract in the water sector including technical, financial, and combined approaches

**Australia's National PPP Practitioners' Guide** [#18, pages 62-65] describes a more holistic approach to evaluating bids. It includes quantitative and qualitative Value for Money, commercial and financial evaluation, service delivery evaluation, and project design evaluation.

## Dealing with issues—only one bid received

If only one bid is received, this can raise concerns about whether that bid will provide value for money. As described in **EPEC's Guide to Guidance** [#6, pages 29-30] there are two broad options in this case, depending on the reason for only receiving one bid:

- Re-package and re-tender—this may be the best approach if the low turnout seems to be because of deficiency in the tender
- Conduct thorough due diligence and select the sole bidder—may be a better option if it appears that the bidder believed the process would be competitive, and is in full compliance with the requirements.

**World Bank procurement guidelines** [#5, page 25] note that rejection of all bids is justified where there is a lack of effective competition, but says "even when only one bid is submitted, the bidding process may be considered valid, if the bid was satisfactorily advertised, the qualification criteria were not unduly restrictive, and prices are reasonable in comparison with market values". The United Kingdom **Government's guidance on the competitive dialogue procedure** [#10, Box 5.7] provides further guidance.

## Dealing with issues—no clear preferred bidder or no conforming bids

In some cases, despite multiple bids being received, there may not be a clear preferred bidder. For example, this could be because no bids conform to requirements; or because a non-conforming bid appears to present a better value-for-money option than conforming bids.

One common cause of this problem is poor clarity or quality of the RFP documents—**Section 3.5.4.1** provides links to guidance on preparing a clear, comprehensive, and well-structured RFP, to avoid this issue. The multi-stage and competitive dialogue procedures described in **Section 3.5.1: Deciding the Procurement Strategy** also help avoid this issue, by enabling changes to the RFP during the bid process that help ensure final bids are all comparable and compliant.

One option if no bids conform, and none appear to be of high quality, is simply to re-package and re-tender the project. The alternative is to extend the procurement process, to identify a preferred bidder: typically through discussions with the higher-ranked bidders on the points where the bids do not conform, often followed by asking for a revised bid.

For further guidance, see **Australia's National PPP Practitioners' Guide** [#18, pages 27-28], which describes two options in cases where no preferred bidder can be selected—entering into a "Best and Final Offer" process with two bidders, or structured negotiations. The **South Africa PPP Manual** Module 5 [#34, pages 51-56] also describes in detail when and how to run a BAFO process, if no clear preferred bidder can be identified.

### 3.5.4.4 Finalizing the PPP contract with the preferred bidder

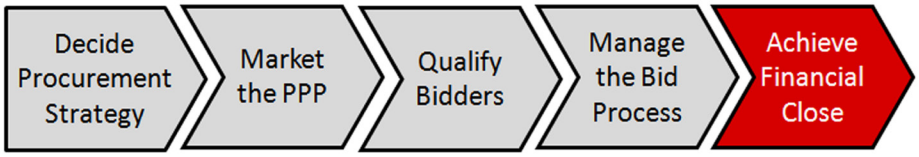
Once the preferred bidder has been selected, governments often enter into further discussion, to finalize the PPP contract. Extensive negotiation at this stage can undermine the competitive tender process, as described in **Section 3.5.1.3: Negotiation with bidders**. However, some level of negotiation may be necessary, to clarify elements of the proposal or contract, particularly when the bid process has not included significant interaction. If financing arrangements have not already been finalized, lenders may also have demands at this stage that create pressure to negotiate on elements of the contract and risk allocation.

Many governments define and limit the extent of negotiations possible at this stage. For example, the **EPEC's Guide to Guidance** [#6, page 31] describes an European Union rule that no issues that are material to the procurement can be changed—that means that no change that could have made another bidder win the bid should be incorporated during the post-bid negotiation phase. Where changes are allowed at this stage, the final contract is often subject to further approval.

The following resources provide guidance on carefully managing post-bid negotiations:

- **Australia's National PPP Practitioners' Guide** [#18, page 30] provides guidance on setting up a "negotiation framework" that includes, among other things, defining the negotiation issues and the timetable, setting the dispute resolution processes, and ensuring that the participants have the authority to make decisions on behalf of their organizations
- **South Africa PPP Manual** Module 5 [#34, pages 59-61] describes principles for negotiation, and the negotiation process
- **ADB PPP Handbook** [#14 pages 79-80] briefly describes important elements for negotiation—including having a fallback plan (which may be the second-place bidder).

## 3.5.5 Achieving Contract Effectiveness and Financial Close




Once the government and the preferred bidder have signed the PPP contract, they are contractually committed to implementing the PPP. However, there are typically several additional steps before project implementation can begin. The preferred bidder usually needs

to finalize the financing agreements for the PPP, and sign contracts with other parties in the PPP structure—for example, sub-contractors and insurers. The implementing agency typically also has tasks to fulfill, such as finalizing permits. Detailed contract management protocols and manuals are often also developed during this period (see **Section 3.7: Managing PPP Contracts** for more details).

The PPP contract typically includes completion of (some of) these elements as Conditions Precedent, which must be met for the contract to become effective. PPP contracts often specify a final date by which the contract terminates, and/or a bid bond is forfeited, if the Conditions Precedent are not met. As noted in the **PPIAF Toolkit for PPPs in Roads and Highways** [#1] section on Contract Award, failing to specify requirements and stipulate a period for financial close can hold up project implementation for years.

## Finalizing financing agreements

In most cases, interested lenders are identified at the proposal stage. However, before those lenders will commit to provide finance, they often carry out detailed due diligence on the project and PPP agreements (as described in **Farquharson et al** [#2, pages 124-125]). There are risks associated with this process—lenders may require changes in the PPP agreements before agreeing to finance the project, or financing terms may change from what was assumed in the proposal. One way to mitigate these risks can be to ask for "firm" financing commitments at the proposal stage—but this can be difficult and expensive to procure, and risk reducing competition.

**EPEC Guide to Guidance** [#6, Pages 31-33] describes the range of financing agreements. **Module 1**, **Section 1.3: How PPPs Are Financed** provides more information on the risks associated with PPP financing and reaching financial close.

## Meeting conditions for contract effectiveness and financial close

Financial close occurs when the all project and financing agreements have been signed, all conditions on those agreements have been met, and the private party to the PPP can start drawing down the financing to start work on the project. As noted in **Yescombe** [#15, pages 87-88], financial close conditions are often circular—the PPP contract does not become effective until funding is available for drawing (that is, funding availability is a Condition Precedent for contract effectiveness), and vice versa.

**EPEC Guide to Guidance** [#6, Page 34] briefly describes common Conditions Precedent, and includes a checklist for governments on finalizing the PPP contract and reaching financial close. Example requirements include:

- Finalizing all project agreements and contracts

- Securing final approval from relevant government entities—for example, review and approval of the procurement process and final contract
- Securing permits and planning approvals
- Commencing or completing project land acquisition.

This process often requires a lot of detailed work and effort by both the public and private parties, to bring the transaction stage to a close and begin project implementation.

| Key References: Managing PPP Transactions | | |
|---|---|---|
| | **Reference** | **Description** |
| 1 | PPIAF (2009) *Online Toolkit for Public Private Partnerships in Roads and Highways*, World Bank | Module 5: Implementation and Monitoring, Stages 3: Procurement, and 4: Contract Award |
| 2 | Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) *How to Engage with the Private Sector in Public - Private Partnerships in Emerging Markets*, PPIAF, World Bank | Chapter 9: Managing Procurement talks through each stage of the procurement process. Includes a case study of the Inkosi Albert Luthuli Central Hospital, South Africa describes the procurement process for the hospital, which included a multi-variable bid evaluation approach |
| 3 | Kerf, Gray, Irwin, Levesque, and Taylor, under the direction of Michael Klein (1998) *Concessions for Infrastructure: A guide to their design and award*, World Bank Technical paper no. 399, World Bank and Inter-American Development Bank | Section 4: Concession Award provides detailed guidance and examples on choosing the procurement process, pre-qualification and shortlisting, bid structure and evaluation, and bidding rules and procedures |
| 4 | World Bank and PPIAF (2006) *Approaches to Private Participation in Water Services: A Toolkit* | Section 9: Selecting an Operator provides guidance on choosing a procurement method, setting evaluation criteria, managing the bidding process, and dealing with other issues |
| 5 | World Bank (2011) *Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers*, The International Bank for Reconstruction and Development / World Bank<br>Also available in French and Spanish | Sets out the procurement procedures that any project receiving World Bank funding must use |
| 6 | European PPP Expertise Center (2011) *The Guide to Guidance: How to Prepare, Procure, and Deliver PPP Projects*, European Investment Bank | Section 2: Detailed Preparation includes information on selecting the procurement method and bid evaluation criteria. Section 3: Procurement describes the bidding process, through to finalizing the PPP contract, with detailed information on reaching financial close |
| 7 | KPMG (2010) *PPP Procurement: Review of Barriers to Competition and Efficiency in the Procurement of PPP Projects*, Infrastructure Australia | Draws on a survey of PPP practitioners, to provide recommendations for how the efficiency of PPP procurement processes can be improved, and barriers to entry reduced. The recommendations focus on improving the efficiency of the PPP procurement process, as well as touching on the pros and cons of governments contributing to bid costs |
| 8 | Ernst and Young (2009) *The use of Restricted Procedure to procure PPP/PFIs in selected European countries: An alternative to Competitive Dialogue?* | Describes the procurement procedures used in the European Union for PPP projects, and the experience of using these procedures in Germany, Spain, Portugal, Greece, Northern Ireland, and France |

| | | |
|---|---|---|
| 9 | World Bank (2007) *Sample Bidding Document: Procurement of Management Services* Includes *Sample Biding Documents*, *Sample Prequalification Document*, and an accompanying *Technical Note* | Section 3 of the technical note describes the procurement process, with detailed guidance on selecting appropriate processes and evaluation criteria, and highlighting some common problems. The note accompanies comprehensive sample bidding documents |
| 10 | HM Treasury *Competitive dialogue in 2008: OGC / HMT Joint guidance on Using the Procedure*, Office of Government Commerce, United Kingdom | Describes and provides guidance on carrying out the competitive dialogue procurement procedure. Describes some challenges—such as receiving only one bid. Also describes the post-bid stages, with guidance on issues that may be resolved post-bid |
| 11 | Dumol (2000) *The Manila Water Concession: A Key Government Official's Diary of the World's Largest Water Privatization*, World Bank | Describes in detail the entire process of the Manila water concession, from deciding on the best option for privatization, to running the tender process, to dealing with the many issues that emerged |
| 12 | Engel, Fischer, and Galetovic (2002) *A New Approach to Private Roads*, Regulation, Fall 2002 | Describes and explains the advantages of the Least Present Value of Revenue criterion introduced in Chile's toll road program |
| 13 | Guasch (2004) *Granting and Renegotiating Infrastructure Concessions: Doing it Right*, World Bank Institute | Chapter 7 provides guidance on optimal concession design, drawing from the preceding analysis of the prevalence of renegotiation of concession contracts in Latin America. Includes guidance on selecting appropriate evaluation criteria |
| 14 | Asian Development Bank (ADB) (2008) *Public-Private Partnership Handbook* | Section 7: Implementing a PPP describes several aspects of PPP procurement, including selecting the process, pre-qualification, bid evaluation, and preparing the tender documentation |
| 15 | Yescombe (2007) *Public-Private Partnerships: Principles of Policy and Finance*, Butterworth-Heinemann [ISBN: 978-0-7506-8054-7] | Section 6.5 "Due Diligence" describes some of the issues the implementing agency should check before contracting is completed—including describing the requirements to reach financial close |
| **Examples: Managing PPP Transactions** | | |
| 16 | World Bank PPP in Infrastructure Resource Center, online at: http://ppp.worldbank.org/public-private-partnership/ | Provides a library of PPP documents, including a selection of model and example procurement documents |
| 17 | World Bank (2006) *Sample Bidding Documents for Procurement of Works and Services under Output- and Performance-based Road Contracts, and Sample Specifications*, World Bank | Includes a comprehensive, sample bidding document, as well as sample specifications in an annex. A foreword also provides some overview guidance |
| 18 | Infrastructure Australia (2011) *National PPP Guidelines volume 2: Practitioners' Guide*, Commonwealth of Australia | Sets out key project phases, including three procurement phases: "Expressions of Interest", "Request for Proposal", and "Negotiation and Completion". Also provides guidance and protocols for the Interactive Tender process |
| 19 | Partnerships Victoria (2001) Partnerships Victoria *Guidance Material: Practitioners' Guide*, Department of Treasury and Finance | Sets out project phases, as described above, as they apply in the State of Victoria, Australia's PPP program. Similar to the National approach; includes more detail on the Bid Evaluation phase |
| 20 | President of the Republic of Brazil (1995) *Law 8987* ("*Federal Concessions Law*") | Sets out the tendering procedures for (user-pays) concessions in Brazil (which also apply to government-pays PPPs) |
| 21 | National Congress of Brazil (2004) *Law 11079 ("Federal PPP Law")* | Clarifies process for PPPs, including describing the contents of the RFP documents, and the possible evaluation criteria |
| 22 | National Congress of Chile (2010) *Law 20410 ("Concessions Law")* | Chapter III sets out in some detail the procurement process for PPPs, including pre-qualification, the bid process, possible evaluation criteria, and processes for contract award |

| | | |
|---|---|---|
| 23 | Parliament of Colombia (1993), *Law 80 (1993)*—updated in October of 2006—*General Statute for Procurement by the Public Administration* (*Ley por la cual se expide el Estatuto General de Contración de la Administración Pública*) | General procurement law, which also applies to PPPs, defines who is allowed to carry out tender processes transparency requirements, and the contents of the tender documents, and sets out the structure of the awarding procedures |
| 24 | Parliament of Colombia (2007), Law *1150 (2007)* | Sets out rules to ensure the objective selection of the winning bid, procedures to verify the veracity of the information presented by bidders |
| 25 | Government of Egypt (2011), *Executive Regulation of the law regulating Partnerships with the Private Sector in Infrastructure Projects, Services and Public Utilities*, Prime Ministerial Decree No. 238 of 2011 (238) 2011) | Part Three sets out in detail the "tendering, awarding, and contracting" procedures for PPPs, including pre-qualifications, tender stage, competitive dialogue, and awarding and contracting procedures. Also specifies an approach for appeals |
| 26 | Government of India (2009) *Model Request for Qualifications*, Planning Commission, Government of India, New Delhi | Sets out a model RFQ, with an explanatory introduction |
| 27 | Government of India (2007) *Model Request for Proposals*, Planning Commission, Government of India, New Delhi | Sets out a model RFP, with an explanatory introduction |
| 28 | Mauritius Ministry of Finance and Economic Development (2006) *Public Private Partnership Guidance Manual* | Section 8 describes the procurement process, including pre-qualification stage, bid stage, negotiation with the preferred bidder, and award. Includes a detailed description of the structure of the RFP |
| 29 | Minister of Finance, Government of Pakistan (2007) *Procurement Guidelines for PPP Projects*, Infrastructure Project Development Facility | Detailed guidance on the pre-qualification and RFP stages, managing the bid process, evaluation, negotiation, contract signing, and financial close |
| 30 | Mexican Federal Congress (2000) *Ley de adquisiciones, arrendamientos y servicios (Law for Acquisitions, Leases and Services)*—latest update in 2011 | Sets out the rules for carrying out tender processes in Mexico. It includes the possible contracting options—public tenders, sole sourcing, and direct invitations to bid to at least three potential bidders |
| 31 | Philippines BOT Center (1993) *The Philippine BOT Law (Republic Act No. 7718) and its Implementing Rules & Regulations*, Government of the Philippines | Implementing Rules 3-11 set out in detail the procurement process and requirements at each stage: pre-qualification, bid process and evaluation, when and how a negotiated procedure may be used, dealing with unsolicited proposals, and contract award and signing |
| 32 | Legislature of Puerto Rico (2009) *PPP Act No. 29*, Commonwealth of Puerto Rico | Section 9 sets out the procedure for selection of Proponents and Award of Partnership. Specifically, it defines the requirements and conditions for proponents, the procedures for selection and award, the evaluation criteria, and the negotiation of the PPP contract |
| 33 | Government of Singapore (2004), *Public-Private Partnership Handbook*, Version 1, Ministry of Finance | Section 3 sets out PPP procurement process options and principles |
| 34 | National Treasury, PPP Unit, Government of South Africa (2004) *Public Private Partnership Manual. Module 5: PPP Procurement* | Module 5: Procurement sets out the procurement process and guidance: including pre-qualification, issuing the RFP, receiving and evaluating bids, negotiating with the preferred bidder, and finalizing the PPP agreement management plan |

# 3.6. Dealing with Unsolicited Proposals

An "unsolicited proposal" is a proposal made by a private party to undertake a PPP project, submitted at the initiative of the private firm, rather than in response to a request from the government. Accepting—and encouraging—unsolicited proposals allows governments to benefit from the knowledge and ideas of the private sector. However, unsolicited proposals also create challenges that mean they risk providing poor value for money, particularly if the government chooses to negotiate a PPP directly with the project proponent.

Section 3.6.1 further describes these benefits and pitfalls of dealing with unsolicited proposals. The remainder of this section then describes how some countries have introduced specific policies for dealing with unsolicited proposals for PPPs. These policies are typically designed to provide incentives to private proponents (to varying degrees) to submit high-quality PPP proposals; to deter poor quality proposals; to introduce competitive tension; and to promote transparency.

Section 3.6.2 describes how competition can be introduced, while rewarding the original proponent with some form of advantage or compensation. Section 3.6.3 provides guidance and resources on dealing with intellectual property in unsolicited proposals. Section 3.6.4 describes and provides examples of processes for receiving, appraising, and implementing unsolicited proposals for PPP projects.

## 3.6.1 Benefits and Pitfalls of Unsolicited Proposals

Accepting unsolicited proposals allows governments to benefit from the knowledge and ideas of the private sector. This can be a significant advantage where limited government capacity means the private sector is better able to identify infrastructure bottle-necks and innovative solutions. It also provides government with information about where commercial opportunities and market interest lie. **Box 3.6.1** provides an example of a PPP project originated by a private company that provided an innovative solution to a transport infrastructure problem that the public sector had been struggling to solve.

**Box 3.6.1: Benefits of Innovation—Hot Lanes in Virginia**

A portion of the I-495 and I-95 highways—the "beltway" around the Washington, DC metro area, and a major North-South corridor—had been in need of repair and expansion to alleviate congestion since the early 1990s. The State of Virginia Department of Transportation (VDOT) initially developed a plan to rehabilitate and expand the highway at a cost of US$3 billion, but lack of funding and public opposition over the proposed displacement of over 300 businesses and homes had stalled the project.

In 2002, Fluor, an engineering and construction company, submitted an unsolicited proposal to develop High Occupancy Toll (HOT) lanes on the I-495, as an alternative

way to accommodate traffic volume. HOT lanes are an innovative technology that allows drivers to pay to avoid traffic. The tolled lanes will run alongside highway lanes, and are designed to be congestion free. To regulate demand for the lanes, tolls for the HOT lanes change depending on traffic conditions. When traffic increases, tolls go up. Cars with more than 3 passengers and buses will be allowed to use the HOT lanes free of charge. The Fluor proposal reduced the number of business and homes displaced from 300 to six, a major factor in garnering public support for the project. The proposal also minimized project costs, by meeting minimum standards for road specifications.

In 2005, VDOT awarded the PPP agreement to construct the HOT lanes. The total cost of the project is US$2 billion, compared to the estimated US$3 billion under initial plans developed by the government. The State of Virginia will contribute US$400 million of this cost. The HOT lanes project reached financial close in 2007 and is set to open in 2012. Another HOT lanes project for I-95 was approved and construction is set to begin in 2012. Both projects are expected to improve congestion and provide a guaranteed travel times for HOT lane users.

Source: Virginia HOT Lanes website (http://www.virginiahotlanes.com); Gary Groat (2004) *Loosening the Belt* Roads and Bridges Vol. 42 No. 4 April 2004; Virginia Department of Transportation (2008) *Virginia HOT Lanes Fact Sheet* Commonwealth of Virginia

However, unsolicited proposals also create substantial challenges. First, most PPPs require government fiscal support: the government typically accepts risks, and the associated contingent liabilities, even if direct subsidies are not needed.[103] As described in the **PPIAF toolkit for PPPs in Roads and Highways** [#1, Module 5, Stage 3 "Procurement"], experience suggests that proposals submitted by private companies often do not adequately assess the risks associated with the project, which may be borne by the government.

Secondly, unsolicited proposals have not been originated as part of a government planning process, and, in some cases by definition, are not part of sector plans. This raises the question of whether the service proposed is sufficiently integrated with other sector plans for demand and benefits to be robust to changing circumstances and priorities.

Thirdly, negotiating with a project proponent on the basis of an unsolicited proposal—in the absence of a transparent or competitive procurement process—can create problems. It could result in poor value for money from the PPP project, given a lack of competitive tension. It could also provide opportunities for corruption. In the absence of corruption, it could nonetheless give rise to complaints about the fairness of the process, if a company is seen to benefit from a PPP without opening the opportunity to competitors. This lack of transparency can undermine the legitimacy and popular support for the PPP program.

103. See **Section 3.2.4: Assessing Fiscal Implications** for more on governments' typical financial commitments to PPPs

**Box 3.6.2** provides an example of a power project in Tanzania that was directly negotiated following an unsolicited approach by the private investor, which under arbitration was found to have provided poor value for money, and possibly been corrupt.

**Box 3.6.2: Costs of Direct Negotiation—Independent Power Tanzania**

The Government of Tanzania and the Tanzania Electricity Supply Company entered into contractual agreements with Independent Power Tanzania Limited (IPTL) of Malaysia for the supply of 100 megawatts of power over a 20-year period. This transaction was directly negotiated following an approach by the private investors during a power crisis. The transaction was contested by some government officials and by the international donor community and other interested stakeholders, on the grounds that it was the wrong technology (heavy fuel oil instead of indigenous gas), that it was not part of the least-cost generation plan, that it was not procured on a transparent and competitive basis, and that the power was not needed.

The government ultimately submitted the case to arbitration. Under the final arbitral ruling, the project costs were reduced by about 18 percent. Even so, the costs remain well above international comparators. In the arbitration hearings the Government alleged that the contract award had been corrupt, bit failed to produce evidence to satisfy the Tribunal of this. The government has not subsequently pursued the corruption investigation. However, legal disputes between the IPTL and the government continue.

Source: World Bank / Energy, Transport & Water Department, and Finance, Economics & Urban Department (2009) *Deterring Corruption and Improving Governance in the Electricity Sector* World Bank; Eberhard and Gratwick *IPPs in Sub-Saharan Africa: Determinants of Success* World Bank

The **PPIAF toolkit for PPPs in Roads and Highways** section on unsolicited proposals [#1, Module 5, Stage 3 "Procurement"] further describes these challenges of unsolicited proposals. It sets out the "current view" of the World Bank as follows:

> *…there is a place for genuine and innovative [unsolicited] proposals, but these are the exceptional case. The private sector must put up strong independently analyzed cases for unsolicited proposals at an early stage, before governments are sucked in to supporting projects that are financially weak, high risk, will take up significant human resources of the government, and will likely take a longer than normal time to implement because of these difficulties.*

According to the World Bank's **PPP in Infrastructure Resource Center section on unsolicited proposals** [#2], the World Bank "considers that unsolicited proposals should be dealt with extreme caution, and does not permit the use of unsolicited proposals in Bank-funded projects".

## 3.6.2 Creating Competitive Tension

Many private companies submit unsolicited proposals with a view to directly negotiating a contract for the proposed project—creating the problems described above. In **Section 3.5**, **Box 3.5.1: Competitive Procurement or Direct Negotiation** describes some circumstances in which entering into direct negotiations may make sense, as well as some less well-founded arguments often presented for doing so.

The alternative is to subject unsolicited proposals to some kind of competitive process. Some countries accept proposals, and simply follow the normal competitive procurement process. This is the case for example in the Netherlands, as described by **Reddy and Kalyanapu** [#3, page 11]. However, this is relatively unlikely to generate proposals, since the proponent receives no return on its investment in the project idea.

Other countries adapt the competitive tender process, to provide some advantage or compensation to the project proponent for developing a project, while retaining competitive tension and ensuring transparency. There is no international consensus on the best way to subject unsolicited proposals to competition. **Hodges and Dellacha's paper on unsolicited proposals** [#4] sets out the following approaches:

- **Best and final offer**—a two-stage bid process is used, in which the highest-ranked bidders from the first stage are invited to submit final proposals in a second stage (see **Section 5.1.2: Bid process**). The proponent is automatically included in the second stage. This approach is used in the **South Africa roads sector**, as set out in a South Africa Roads Agency policy note [#13]

- **Developer's fee**—the proponent is paid a fee by the government or the winning bidder. The fee can simply reimburse some project development costs, or be defined to provide a return on developing the project concept and proposal. This is one option for dealing with unsolicited proposals permitted in **Indonesia** under the presidential regulations governing PPP [#9]

- **Bid bonus**—the proponent receives a scoring advantage—typically defined as an additional percentage added to its evaluation score—in an open bidding process. This approach is used in **Chile**, where the bid bonus can be between 3 and 9 percent of the financial evaluation score (in addition, the proponent is reimbursed for the cost of detailed studies) [#8]

- **Swiss challenge**—following an unsolicited approach, an open bidding process is conducted. If unsuccessful, the proponent has the option to match the winning bid and win the contract. This approach has been used in several states in India, as described further in **Reddy and Kalyanapu's paper on managing unsolicited proposals for PPPs in India** [#3].

**Table 3.6.1: Examples of Procurement Strategies for Unsolicited Proposals** provides further examples and references. These alternatives have not all proved equally effective at enabling competition. **Hodges and Dellacha** reviewed several countries' experience with unsolicited proposals [#4, Appendix B]. In Chile, for example, of 12 concessions awarded from unsolicited proposals as of March 2006, 10 attracted competing bids, and only 5 were awarded to the original proponent. On the other hand, in the Philippines under the Swiss Challenge approach, all 11 PPP contracts awarded from unsolicited proposals by 2006 went to the original proponent.

**Table 3.6.1: Examples of Procurement Strategies for Unsolicited Proposals**

| Jurisdiction | Reference | Key Features |
|---|---|---|
| Chile | Public works concession regulations (updated 2010) [#8, Title II: Bids Submitted by Private Parties] | • Two-stage process for accepting unsolicited proposals—initial proposals are screened; if accepted, the private party must conduct detailed studies and prepare a detailed proposal. The government then prepares bidding documents based on the detailed proposal, and puts the project out to competitive tender<br>• Costs of carrying out studies are reimbursed (paid by the winning bidder, or the government if project never proceeds to bid stage). Costs agreed at initial project approval stage<br>• Proponent receives a **bid bonus** of a pre-defined percentage (between 3 and 8 percent depending on the project) added to financial evaluation score |
| Indonesia | Presidential Regulation 67 (2005) [#9, Chapter IV] | • Unsolicited proposals welcomed for projects not already in priority list<br>• Accepted proposals are put through normal competitive process. Proponents may either be awarded a **bid bonus**, of up to 10%, or paid a **developer's fee** for the proposal. The approach is set by the contracting authority, based on an independent appraisal |
| Italy | Legislative Decree no. 163 (2006) [#10, Articles 153-155] | • Contracting authorities publish three-year plans on an annual basis; private companies are invited to make proposals for infrastructure listed in these plans (following clear content requirements—including detailed studies—and timeline). Proposals are evaluated by the contracting authority<br>• A type of **Swiss Challenge** process is used to procure the project. A first stage is used to identify two competing bidders, who together with the proponent enter into a negotiated procurement procedure (see Table **3.5.1: Examples of PPP Procurement Procedures**). If a competing proposal is preferred, the proponent is given the right to match that proposal, in which case the proponent is awarded the concession |
| Republic of Korea | ADB review of PPP experience in the Republic of Korea [#11, pages 67-69] | • Unsolicited proposals must be evaluated by the contracting authority and the PPP unit (PIMAC)<br>• The opportunity is published and alternate proposals are requested, within a 90 day time limit<br>• The proponent receives a **bid bonus** of up to 10 percent, added to the overall bid evaluation scores. The proponent may modify its original proposal at the bidding stage, but its bonus is reduced to a maximum of 5 percent. Bonuses are disclosed in the request for alternate proposals<br>• Losing bidders are compensated in part for proposal costs, to encourage competition |

| Jurisdiction | Reference | Key Features |
|---|---|---|
| Philippines | BOT Law 1993 (Republic Act No. 7718) Rules and Regulations [#12, Rule 10] | • Unsolicited proposals welcomed for projects not already in priority list<br>• The contracting authority must advertise the opportunity for at least three weeks, and invite competing proposals within a 60 day time limit<br>• If competing proposals are received, a **Swiss Challenge** process is followed—if the proponent is not the winning bidder, it is given the opportunity to match the winning bid and win the contract<br>• If no competing proposal is received, the authority may negotiate with the proponent |
| South Africa (roads sector) | SANRAL policy for unsolicited proposals (2001) [#13] | • Unsolicited proposals must comply with clear content requirements, and are evaluated by the Agency<br>• If the proposal is accepted the Agency and the developer enter into a "Scheme Development Agreement", under which the private party is responsible for detailed development of the PPP, including developing tender documentation. The agreement includes a **developer's fee** payable by the winning bidder to the proponent<br>• The project is put out to competitive tender, in a two-stage **best and final offer** process. The top two bidders from the first round are invited to re-submit best and final offers; the proponent is also invited, if not already in the top two |
| State of Virginia, United States of America (highways sector) | Virginia PPP Implementation Guidelines [#14] | • Proposals are welcome that comply with the detailed requirements set out and are evaluated in the same way as government-originated projects<br>• Proposals for PPPs requiring no government oversight or support are advertised for 90 days; those for PPPs requiring government support for 120 days. If no competing proposal is received, the government may negotiate directly with the proponent |

### 3.6.3 Dealing with Intellectual Property

Private investors may be reluctant to submit unsolicited proposals if the proposal will be subject to competition, and if it is not clear how any intellectual property or commercially-sensitive information will be protected during the bidding process.

There are different approaches to dealing with intellectual property in an unsolicited proposal, which may depend on the nature of the proposal. For example, the **UNCITRAL Legislative Guide for Privately-Financed Infrastructure Projects** section on unsolicited proposals [#7, pages 91-97] describes two options:

- Where possible, the government can competitively tender the project, by specifying required outputs, and not the required technology to deliver those outputs. This approach is consistent with good practice in defining output-based performance requirements for PPPs (see **Section 3.4.1: Performance Requirements**)
- In cases where intellectual property is crucial to the project, such that it could not be implemented otherwise, the UNCITRAL guidance suggests direct negotiation may be warranted, along with procedures to benchmark project costs.

The Government of New South Wales in Australia provides guidance for practitioners on handling intellectual property [#15], which follows a similar approach to UNCITRAL, allowing direct negotiation of the PPP in certain circumstances. The Partnerships Victoria Practitioner's Guide [#16] also provides guidance, and takes a slightly different approach. Proponents agree must identify any intellectual property they wish to protect (subject to agreement with government). The project is then tendered based on output specifications without revealing technology information if possible. If the intellectual property is "crucial to the existence of the service need", the government negotiates with the proponent to obtain the rights to the necessary intellectual property, before procuring the project competitively.

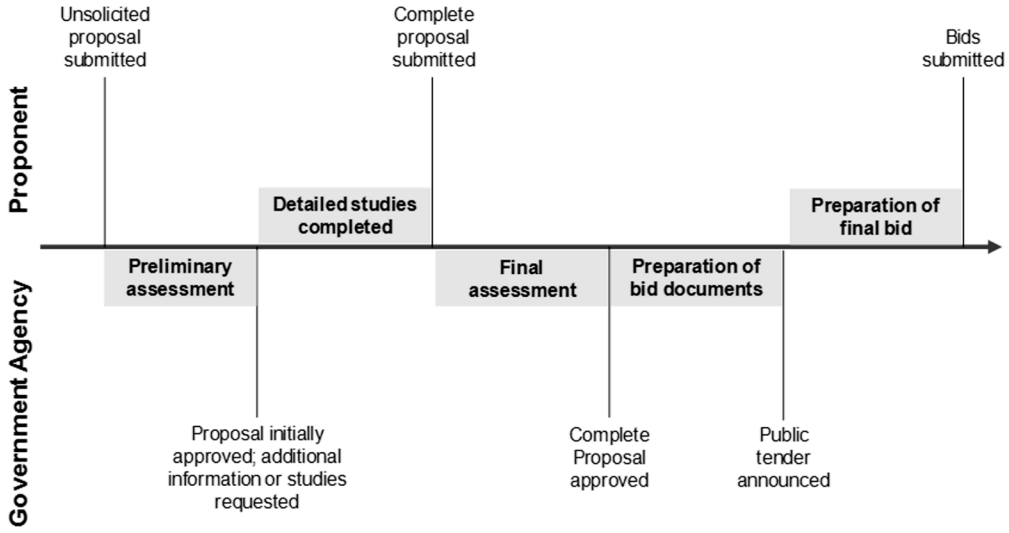
### 3.6.4 Defining Clear Processes

Clear processes for handling unsolicited proposals are important for transparency, helping build confidence among all stakeholders that projects developed from unsolicited proposals deliver value for money. Clear processes can also help incentivize private developers to invest resources in developing good-quality project proposals, and encourage potential competitors to engage in the bidding process.

**Hodges and Dellacha** [#4] describe a well-defined process to assess, approve and bid out a project from an unsolicited proposal, as illustrated in Figure 6.1. First, a private company submits an unsolicited proposal, following clear content and presentation requirements. This proposal is screened, often following a similar approach as described in **Section 3.1.2: Screening Candidate Projects** If the proposal passes the initial screening, the proponent is invited to complete any necessary studies before the proposal is assessed against the same criteria as any PPP (as described in **Section 3.2: Appraising PPP Projects**). If approved, any developers' fee or bonus that will apply is often agreed at this stage.

The responsible government agency then prepares bid documents, based on the final proposal, and conducts a tender process. Proponents may or may not have an opportunity to respond to the bid documents and submit a final bid. For example, in **Korea** the proponent may modify its original proposal and bid, but in doing so forfeits some of its bid bonus (as described in an **ADB / KDI report on PPP experience in Korea** [#11, pages 67-69]).

**Figure 3.6.1: Process for Assessing, Approving and Bidding an Unsolicited Proposal**




Source: Based on Hodges and Dellacha [#4, page 7]

Many countries specify time periods within which each of these steps will be taken. **Hodges and Dellacha** [#4, pages 12-13] describe the benefits and risks of doing so. On the one hand, specific deadlines within which the government will deal with proposals can be helpful to provide assurance to the private sector that their proposal will not languish in the process
.
On the other hand, some countries introduce tight limits on the time allowed for competing proposals, which could deter competition. For example, in the **Philippines**, the BOT Law of 1993 [#12] requires authorities to advertise an opportunity for three weeks, and allow 60 days for competitors to respond—which is unlikely to allow competitors to carry out the due diligence necessary to prepare a high-quality proposal.

**Table 3.6.1: Examples of Procurement Strategies for Unsolicited Proposals** briefly describes processes for dealing with unsolicited proposals in several countries. **Chile**'s concessions law [#8], in particular, sets out the approach and requirements in detail. The **ADB / KDI report on PPP experience in Korea** [#11, pages 67-69] also describes each step in the procedure for dealing with unsolicited proposals.

| Key References: Dealing with Unsolicited Proposals | | |
|---|---|---|
| Reference | | Description |
| 1 | PPIAF (2009) *Online Toolkit for Public Private Partnerships in Roads and Highways,* World Bank | Module 5: Implementation and Monitoring, Stage 3: Procurement includes a section on unsolicited proposals, which describes their benefits and challenges, and provides examples of both successful and unsuccessful PPPs from unsolicited proposals |
| 2 | World Bank PPP in Infrastructure Resource Center, online at: http://ppp.worldbank.org/public-private-partnership/ | Section on "procurement processes and standardized bidding documents" briefly describes the World Bank's view on unsolicited proposals, and provides examples from and links to some countries' relevant law and policies |
| 3 | Reddy and Kalyanapu (undated) *Unsolicited Proposal—New Path to Public-Private Partnership: Indian Perspective*, Technische Universiteit Eindhoven | Describes the approach to dealing with unsolicited proposals in several Indian states, which have adopted a Swiss Challenge process, and draws lessons from India's experience |
| 4 | Hodges and Dellacha (2007) *Unsolicited Infrastructure Proposals: How Some Countries Introduce Competition and Transparency*, PPIAF Working Paper no. 1, 2007 | Describes commonly-used rationales for advocating direct negotiation on the basis of unsolicited proposals, and describes the systems and policies that some countries have instead introduced to promote competitive tension. Appendices describes the approach and experience with unsolicited proposals in several countries in Asia, Africa, and the Americas, and includes links to the relevant laws and regulations |
| 5 | Hodges (2003) *Unsolicited Proposals: The Issues for Private Infrastructure Projects*, World Bank Public Policy for the Private Sector Note Number 257 | Provides an overview of important issues governments face when dealing with unsolicited proposals—when and how they should be accepted, and why and how competition should be introduced into the process |
| 6 | Hodges (2003) *Unsolicited Proposals: Competitive Solutions for Private Infrastructure Projects*, World Bank Public Policy for the Private Sector Note Number 258 | Describes the experience of four countries in dealing with unsolicited proposals: Chile, the Republic of Korea, the Philippines, and South Africa |
| 7 | UNCITRAL (2001) *Legislative Guide on Privately Financed Infrastructure Projects*, United Nations | Section E provides guidance on both policies and procedures for dealing with unsolicited proposals. Distinguishes between proposals that do or do not require proprietary technology |
| **Examples: Dealing with Unsolicited Proposals** | | |
| 8 | Government of Chile, Ministry of Public Works (2010) *Regulation N0. 956 of Public Works Concessions (Reglamento de Concesiones de Obras Públicas)* | Title II describes in detail the process and for dealing with unsolicited proposals, including the required content of initial proposals, how detailed studies will be managed, how proposals will be evaluated, and procured |
| 9 | Government of Indonesia (2005) *Presidential Regulation No. 67 concerning Government Cooperation with Business Entities in the Supply of Infrastructure*, President's Office of Indonesia, as amended by Government of Indonesia (2011) *Presidential Regulation No. 56* | Chapter IV states that unsolicited proposals will be accepted for projects not already on a priority list, and briefly outlines the process and procurement approach |
| 10 | President of the Republic of Italy (2006) *Legislative Decree 163: Code for Public Contracts for Works, Services and Supplies in the Implementation of Directives 2004/17/CE e 2004/18/CE* | Articles 153-155 describe when unsolicited proposals are accepted, how they are evaluated, and the procurement process that applies |

| | | |
|---|---|---|
| 11 | Kim, Kim, Shin and Lee (2011) *Public-Private Partnership Infrastructure Projects: Case Studies from the Republic of Korea, Volume 1: Institutional Arrangements and Performance*, Asian Development Bank | Pages 61-69 describe the implementation procedures for PPP projects, including those originated as unsolicited proposals |
| 12 | Philippines BOT Center (1993) *The Philippine BOT Law (Republic Act No. 7718) and its Implementing Rules & Regulations*, Government of the Philippines | Rule 10 states that unsolicited proposals will be accepted for projects not already on a priority list, sets out how proposals should be evaluated, how competing bids will be invited (under a Swiss Challenge process), and how the government may negotiate with the proponent in the absence of competing bids |
| 13 | South Africa National Roads Authority (1999) *Policy of the South African National Roads Agency in Respect of Unsolicited Proposals* | Describes the policy and sets out the procedure for dealing with unsolicited proposals for national roads PPPs. Includes a description of the required content of the proposal, the process for detailed preparation of the PPP and tender documents, and the tender process that will apply |
| 14 | The Commonwealth of Virginia (2005) *Public-Private Transportation Act of 1995 (as Amended) Implementation Guidelines* | Sets out the process for developing and implementing PPPs, both from solicited and unsolicited proposals. Includes detailed guidance on the required content of unsolicited proposals |
| 15 | New South Wales Treasury (undated) *Intellectual Property Guideline for Unsolicited Private Sector Proposals Submitted Under Working With Government* available online at http://www.wwg.nsw.gov.au/ | Provides a checklist of intellectual property issues that should be covered in unsolicited proposals, intended as guidance for proponents |
| 16 | Partnerships Victoria (2001) *Practitioners' Guide*, State of Victoria | Section 21: Unsolicited Proposals sets out how intellectual property in unsolicited proposals will be dealt with |

# 3.7. Managing PPP Contracts

Managing PPP contracts involves monitoring and enforcing the PPP contract requirements, and managing the relationship between the public and private partners. The contract management stage spans the lifetime of the PPP agreement, from the date of contract effectiveness to the end of the contract period.

**Figure 3.7.1: Contract Management Stage of PPP Process**

Managing PPP contracts differs from managing traditional government contracts. PPPs are long-term and complex, and contracts are necessarily incomplete—that is, the requirements and rules in all scenarios cannot be specified in the contract. The aims of contract management for PPPs are to ensure:

- Services are delivered continuously and to a high standard, in accordance with the contract, and payments or penalties are made accordingly
- Contractual responsibilities and risk allocations are maintained in practice, and the government's responsibilities and risks managed efficiently
- Changes in the external environment—both risks and opportunities—are spotted and acted on effectively.

These aims of contract management are elaborated in the **4Ps Guide to Contract Management for PFI and PPP Contracts** in the United Kingdom [#2, page 5]. The **South Africa PPP Manual** section on PPP Agreement Management [#3, Module 6, pages 11-12] describes what is needed and what is meant by successful management of a PPP contract, as well as what can go wrong in contract management, and why.

The foundations for effective contract management are laid earlier in the PPP implementation process. Many aspects of contract management—such as procedures for dealing with change, and dispute resolution mechanisms—are set out in the PPP agreements, as described in **Section 3.4: Designing PPP Contracts**.

This section describes three aspects of putting contract management into practice for PPP projects:

- **Establishing contract management institutions**—defining and establishing the responsibilities and communication mechanisms that will enable an effective relationship between the public and private partners to the contract
- **Monitoring PPP delivery and risk**—monitoring and enforcing contract compliance and service performance by the private party, ensuring the government delivers on its responsibilities under the contract efficiently, and monitoring and mitigating risk
- **Dealing with change**—putting into practice the mechanisms described in **Section 3.4: Designing PPP Contracts** to deal with contract adjustments, dispute resolution, and contract termination, as well as deciding whether, when and how to re-negotiate **Managing contract expiry and asset handover**—managing the transition of assets and operations at the end of the contract term.

The United Kingdom Treasury's Operational Taskforce, part of the PPP Unit, has produced comprehensive guidance notes covering several topics on contract management for PPPs

[#1]. These guidance notes are available on the Operational Taskforce's website, at the following link: http://www.hm-treasury.gov.uk/ppp_operational_taskforce.htm. They are also referenced in the relevant sections below.

## 3.7.1 Establishing Contract Management Structures

Establishing the contract management structures means defining responsibilities for contract management within government, and how the relationship with the private party will be managed. This includes designating a PPP contract manager (or management team) within the implementing agency, as well as defining the roles of other entities within government in managing the PPP. The government will need to be clear on where the contract manager has autonomy, and can act with discretion, and where it needs to consult or gain approval from someone else—a higher level officer, or another entity such as a Finance Ministry. It also requires establishing communication and contract management protocols for the relationship with the private party.

The **United Kingdom Treasury Operational Taskforce project transition guidance** [#1B] is a helpful overview resource for establishing contract management institutions. The guide covers resource planning for contract management, setting up monitoring and management arrangements, and establishing the communication approach.

### 3.7.1.1 Designating a PPP contract manager and management roles

The implementing agency typically has primary responsibility for contract management. This responsibility is often centered on a designated "PPP contract manager"—the main point of contact within government for all matters relating to the PPP.

The PPP contract typically designates a particular entity as the contractual counterpart—for example, a Health Board for a new hospital. The contract may also specify the individual contract point (and should provide for this to be changed simply, by notice to the private party). In practice, there is a lot more to contract management than these statements in the contract. The PPP contract manager—or management team—needs:

- **Sufficient resources**. Depending on the complexity of the contract—and resources available—the manager may be supported by a team, with members responsible for different aspects of contract management. The same individual or team could also manage more than one PPP contract**. Farquharson et al's chapter on contract management** [#4, pages 136-137] highlights the need for the implementing agency to budget for the cost of the team, and their training
- **Appropriate skills**. The **4Ps Guide to Contract Management for PFI and PPP Projects in the United Kingdom** [#2, p. 15-16] provides a typical job profile and skills required

for a contract manager. The United Kingdom **Operational Taskforce guidance** [#1B, page 2] emphasizes five key skills: communication, negotiation, change management, financial competence (to understand the payment mechanism), and analytical skills. This Taskforce was itself set up in part as a response to concerns about a lack of commercially-skilled contract managers in public authorities[104]

- **Appropriate seniority**. For example, the **South Africa PPP Manual module on contract management** [#3, pages 15-16] notes that the contract manager needs to be senior enough to have the ear of senior staff at the implementing agency and other government entities, to deal with emerging issues.

The **4Ps Guide to Contract Management for PFI and PPP Projects** [#2, page 8-10] describes the process of setting up a contract management team. Drawing on the experience of contract managers in the UK, the guide emphasizes the benefit of having the contract manager involved early—ideally when contract management provisions in the contract are being designed. Continuity is also important during the contract lifetime, since the contract will most likely outlast its management team. The guide describes how careful succession planning, supported by a detailed contract management manual, can help ensure continuity [#2, page 19].

## Roles of other entities in contract management

Several other entities within government can also have roles to play in managing a PPP contract, typically working with the contracting authority. These can include:

- **Sector regulators**, which often have responsibility for monitoring service standards and managing changes in tariffs for PPP companies providing services directly to the public (see **Module 2**, **Section 2.5.2: PPPs and Sector Regulation**). For example, in **Perú**, contract management responsibilities in the transport sector are mostly allocated to OSITRAN—*Organismo Supervisor de la Inversión de Infraestructura de Transporte de Uso Público*—an agency in charge of regulating and supervising the management of public transport infrastructure.[105] OSITRAN is in charge of monitoring the concessionaire's compliance with the Concession Contract. This includes monitoring economic, commercial, operation, investment, administrative, and financial aspects of the contract. OSITRAN also has the authority to resolve controversies between users and the concessionaire. **Zevallos Ugarte's book on lessons learned in concessions in Perú** [#5] further describes the responsibilities of OSITRAN. Similar regulatory agencies exist in other infrastructure sectors in Perú

104. As described in United Kingdom House of Lords Select Committee on Economic Affairs (April 2010) 2nd Report of Session 2009-2010: *Government Response to Private Finance Projects and Off-Balance Sheet Debt* HL Paper 114, paragraph 177

105. OSITRAN was created in 1998 by Law 26917 on the Supervision of Public Investments in Transport Infrastructure. In 2006, the president passed a new Decree enabling Law 26917 and setting new objectives, and responsibilities for OSITRAN

- The **Finance Ministry** is often involved, particularly where any possible changes to the contract could have a fiscal implication. For example, in **Chile** the **Concessions Law (updated 2010)**[106] states that any changes introduced in the PPP contract during implementation must be done through a Supreme Decree of the Ministry of Public Works, and that the Decree must be approved (signed) by the Ministry of Finance

- **Central PPP units** or other specialized support units may have a role in supporting the contracting authority's contract management team. **Farquharson et al** [#4, pages 137-138] note this can be particularly useful for dealing with complex issues—such as a refinancing—that may only occur once in a project lifetime. For example, the United Kingdom **Treasury Operational Task Force** was established under the United Kingdom's PPP Unit, to provide help and guidance to public sector managers of PPP projects on contract management strategies, benchmarking, and refinancing of operational contracts.[107]

- The **World Bank's Water PPP Toolkit** [#6, pages 126-130] describes a range of options for institutional structures for monitoring and managing PPPs (focusing on PPPs providing services to users), with examples. It also sets out criteria for choosing the most appropriate institutions.

Other actors within and outside government may also be drawn on to fulfill particular roles. For example, private contractors and end users can play a role in service monitoring, as described in **Section 3.7.2**. Independent expert advisors or panels are also often used to help deal with change in the PPP contract, as described in **Section 3.7.3**.

### 3.7.1.2 Communication and contract management protocols

As well as establishing institutions, the government needs to specify the structure for communication between the public implementing agency and the private party. This often requires relationships at different levels of both organizations—from the more senior levels (if dealing with emerging problems with the contract), through those primarily responsible for contract management, to the operational staff. For example:

- The **4Ps Guide to Contract Management for PFI and PPP Projects in the United Kingdom** [#2, pages 11-13] describes the set-up recommended for municipal councils in the United Kingdom, which comprises a "partnership board" at the most senior level, a "contract management board", and an "operational management team" to deal with day to day management. The guide describes how often each would meet, and the types of issues they would deal with

106. Government of Chile (2010) *Law 20410 ("Concessions Law")*, Article 19

107. For more information, see the Operational Task Force website at the following link: http://www.hm-treasury.gov.uk/ppp_operational_taskforce.htm

- **South Africa PPP manual module on contract management** [#3, pages 13-17] also describes a similar structure, setting out the focus and typical parties to communication at the strategic, business, and operational level.

Some governments formally establish the communication and relationship management arrangements in a contract administration manual, or plan. The **4Ps Guide** [#2, pages 19-20] describes and provides suggested contents for an operational contract manual, which includes defining the governance structure and communication approach.

As important as the formal protocols is the nature of the relationship between the government agency and the private party. The **United Kingdom Operational Taskforce note on project transition** describes the importance of building good relations with the contractor [#1B, pages 21-22]. The **4Ps Guide** [#2, page 26] also describes the need for trust, while also setting boundaries and being ready to challenge. The guide emphasizes the need to avoid developing a "cosy" relationship that could lead to opportunism.

## 3.7.2 Monitoring and Managing PPP Delivery and Risk

To achieve the value for money promised by a PPP, the government needs to make sure that the planned allocation of responsibilities and risks is put into practice. Throughout the lifetime of the contract, the contract manager needs to:

- Monitor contract compliance and service performance by the private party, and ensure penalties or bonuses are paid appropriately
- Monitor and ensure compliance by government with its responsibilities under the contract
- Monitor and mitigate risks.

The actual activities required will differ between implementation stages—design, construction, implementation, and project close. For an overview of service delivery management—including key elements of risk management and performance management—see the **South Africa PPP Manual module on contract management** [#3, pages 20-28].

### 3.7.2.1 Monitoring and enforcing service performance and contract compliance

The implementing agency needs to ensure the private party meets its obligations under the partnership, by monitoring outputs, or service standards. This does not generally involve detailed monitoring of construction, which is the responsibility of the private party. Instead, it means monitoring against the performance indicators established in the contract, as described in **Section 3.4.1: Performance Requirements**. The **4Ps guide to contract management for PPPs** [#2, pages 28-36] provides an overview of managing service performance (focused on government-pays PPPs), and a checklist of key issues.

As described in **Section 3.7.1: Establishing Contract Management** , monitoring service performance and contract compliance is often the responsibility of the contract manager and management team. For PPPs in sectors that are regulated, the sector regulator may also undertake some or all monitoring responsibility. In either case, sources of monitoring information can include:

- **Data provided by the private party**. Typically, the private party is responsible for providing project performance data in regular reports to the contracting authority. The content, format and frequency of these reports should be specified in the contract. For example, the **Partnerships Victoria Contract Management Guide** [#7, pages 54-55] describes how reporting requirements can be specified, including suggested templates for the different contract stages
- **Independent experts** can be used to carry out checks on construction, maintenance on service standards, while avoiding concerns of bias in results. For example, the **Partnerships Victoria Contract Management Guide** [#7, page 55] describes how independent reviewers are used at construction and service delivery stages. **India's guidelines on monitoring PPP projects** [#8, page 8] also describe the use of an independent engineer to monitor compliance during design, construction, and operations
- **Service users** have a wealth of information on the quality of service and the prevalence of faults, which the government can draw on by setting up processes for feedback. For example the **4Ps Guide to Contract Management** [#2, page 33] describes a helpdesk, to be established by the service provider, which gives access to government on a read only basis, as a good practice.

These arrangements should be specified in the contract, as described in **Section 3.4.1: Performance Requirements**.

The implementing agency also needs to ensure enforcement mechanisms are implemented as appropriate, based on the monitoring information received. This could include adjusting payments (for government-pays PPPs) following the rules in the contract, or in severe cases, calling performance bonds. It also includes communicating with the contractor, and monitoring attempts to rectify performance shortfalls. Finally, it could include identifying if and when trigger points are reached for default, step-in by the lenders or the public party, or termination (see **Section 7.3: Dealing with Change**).

## 3.7.2.2 Monitoring and managing government responsibilities, and risks

A crucial element in ensuring good performance and sustained service delivery under a PPP contract is monitoring and managing the risks and responsibilities allocated to government. A central tool often used by implementing agencies in doing so is a "risk management plan".

A risk management plan typically lists each risk and associated responsibilities borne or shared by the government, as well as those that may undermine sustainability of the PPP (and so lead to risk of default, or poor performance). For each risk, the plan should also identify the information needed to monitor the risk, and possible actions to mitigate the risk or its impact. These information requirements should also be part of the reporting requirements defined in the contract. **Farquharson et al** [#4, pages 153-158] provides a sample extract of a risk management plan for a PPP, which lists risks, and for each risk describes the "owner", status, estimated impact, comments, mitigating actions, target dates for action, and current risk status.

The risk management plan should be developed by the contract manager prior to the start of the contract, then act as a resource and guide throughout the duration of the contract. The contract manager typically collects the relevant risk monitoring information from the private party, and relevant external information (such as on economic trends), to regularly update the plan. The contract manager then needs to:

- Monitor indicators against expected levels, to identify emerging risks. For example, traffic levels failing to climb as projected may indicate a risk that a minimum traffic payment will be triggered
- Take the planned mitigating actions, where there are risks that the implementing agency can control (or ensuring private party is doing the same). For example, if government is responsible for associated infrastructure that is falling behind schedule, the plan may be to transfer responsibility for that infrastructure to a higher level team in government, or to the private party

Even where risks cannot be controlled, consider possible actions and responses. For instance, if floods threaten critical water service facilities, government may start work with the private party on an emergency response, including alternative supplies, rationing, and a service re-instatement plan.

**Box 3.7.1** provides an example of weak risk management, where the government's contract monitor collected risk information, but failed to act on it.

**Box 3.7.1: Example of Weak Risk Monitoring—Victoria Trams and Trains**
The **trams and trains franchises in Melbourne, Australia** provide an example of the implications of inadequate risk monitoring. The government awarded a series of franchises for the city's urban transport system, in which demand risk was largely borne by the private parties. Demand turned out to be substantially lower than expected, resulting in financial difficulties for the companies. The government's contract monitor was receiving information from the private parties, which showed the deteriorating financial performance. However, the monitor failed to hear the alarm bells or take any remedial action. Performance continued to deteriorate, to the point that the private parties' best option was to walk away from the contract, and the government had no option but to renegotiate.
Source: Erhardt and Irwin (2004) *Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects* World Bank Policy Research Working Paper 3274

The following resources provide further guidance and examples of risk management approaches:

- **The South Africa PPP Manual module on contract management** [#3, pages 20-24] describes how risk monitoring and management should center around a risk management plan
- The **Partnerships Victoria Contract Management Guide** [#7, pages 49-54] describes the monitoring information—beyond KPIs—that the government will typically collect, to monitor risks to the sustainability of the contract.

## 3.7.3 Dealing with Change

Over the life of a typical PPP contract—10 to 30 years—things will inevitably happen that could not have been predicted when the contract was signed. It is also likely that the parties will get into a dispute over how the contract should be interpreted, or whether both parties have been performing as agreed. In some cases, these disputes may result in early termination of the contract.

These risks cannot be avoided—but they can be managed. Some general guidance material that is available on dealing with change in PPPs is:

- The **United Kingdom's National Audit Office publication** on managing the PFI relationship [#9], which emphasizes the need for: public authorities to address the question of contract management early in the project preparation; appropriate skills in the public authority; and highlights the importance of an open and cooperative attitude
- The **United Kingdom Operational Taskforce note** on variations protocol for operational PPPs [#1C] describes issues to consider when managing a range of types of contract variation, and sets out a detailed contract variation protocol for PPP projects in the United Kingdom
- A shorter overview on similar topics is provided in **Quick's article on managing PPP contracts** [#10] which also adds an Australian perspective
- **UNESCAP's PPP guidebook** [#11, Chapter 6] offers an overview of contract management intended for developing countries. It focuses on institutional arrangements for contract management, and mechanisms for dispute resolution.

These materials do not provide a great deal of detailed guidance of the sort that would benefit government officials in developing countries. Therefore, the approach taken in this section is to also provide examples of where these issues have come up, and ways in which they have been handled, from which practitioners can draw lessons. These "change" situations can usefully be discussed in four categories: planned reviews and adjustments; renegotiations; disputes; and early termination.

### 3.7.3.1 Planned reviews and adjustments

Well-designed contracts contain mechanisms in the contract to adjust terms when the situation warrants it. These are discussed in **Section 3.4.3: Adjustment Mechanisms**.

Such provisions are valuable because even a relatively simple PPP, like a new toll highway, faces not only obvious risks such as fluctuations in demand, but non-obvious risks such as demand to provide more interchanges in the future, or install new technologies for active traffic management. More complex PPPs, such as water concession contracts, are even more exposed to unpredictable changes. For example, network assets may last more or less time than assumed. Demands for changes in treatment and distribution technologies may flow from new health research. The prices of key inputs such as labor, energy and chemicals may fluctuate considerably, as may the efficiency with which these inputs can be used. Urban growth may create large investment demands, sometimes in unpredicted locations.

Where contractual mechanisms are in place, both parties need to follow those mechanisms and use them to keep the contract working well as the situation evolves. However, because these mechanisms involve discretion, and are often relatively open rather than prescriptive, it can be difficult to use them well in practice. It is therefore worth considering some particular types of planned reviews, to see what can be learned about what works and what does not in their application.

Planned reviews are commonly used for adjusting tariffs, and for adjusting the price of operating services through "market testing". Each of these situations is described below. Contracts may also provide mechanisms for changing service standards, and for responding to force majeure or other extreme events. However, there is less in the way of existing guidance on these matters.

## Tariff or payment adjustments

PPP contracts often provide for adjustment to tariffs. These are generally analogous to regulatory tariff resets, so the guidance provided in the regulatory literature is helpful here. The **World Bank's explanatory notes on water sector regulation** include a note on regulation and PPP contracts [#12, Note 4]. This note sets out the relationship between regulation and PPP contracts, and so can be helpful in understanding where the concepts are the same, where they differ, and how they can sometimes conflict.

Tariff or payment mechanism adjustments need to be carried out in accordance with the provisions of the concession contract. Disagreements over whether or not a review was carried out in accordance with the contract can lead to disputes, as happened in Vanuatu when a new regulatory authority proposed a tariff change and the utility argued it was not in line with the contractual provisions.[108]

108. The following press release of the Regulatory Authority provides further details: http://www.ura.gov.vu/attachments/article/92/URA%20Press%20Media%20Conferenceon%20Arbitration%20EN.pdf

In addition to being aware of, and following, the rules in the contract, contract managers need to make sure required institutional elements are in place, as described in the **EPEC Guide to Guidance** [#13, pages 37-38]. For example, this could include ensuring expert panels have been identified and are qualified, and all the steps are clear to all parties involved.

Where the contract is not definitive on the approach to be followed, regulatory guidance material may be useful. The **World Bank's body of knowledge on infrastructure regulation** [#14] section on price level regulation describes key issues in tariff regulation, and guides readers in accessing a wide range of references.

## Market testing operating costs

Some PPP contracts require periodic "market testing" of certain sub-services in the contract, to allow costs to be adjusted to market conditions. This is typically done where a PPP includes provision of a long-lived asset (such as a school or hospital facility) together with "soft" services where market contracts are typically of shorter duration (such as cleaning). The objective is that the price charged for the soft services should be kept in line with market conditions, through periodic challenges. This approach is most common in PPP contracts in the United Kingdom Private Finance Initiative (PFI) tradition.

A **United Kingdom Operational Taskforce note** provides detailed guidance on carrying out benchmarking and market testing exercises [#1A]. The **United Kingdom's Department of Health** has also produced a code of best practice on benchmarking and market testing in hospital PFIs [#15]. This code provides guidance on how to manage the market testing process, focused on health facilities contracts.

## 3.7.3.2 Renegotiations

Many PPP contracts are renegotiated, often quite early in their lives, as described in **Guasch in his paper on renegotiation in PPPs** [#16]. "Renegotiation" refers to changes in the contractual provisions, otherwise than through an adjustment mechanism provided for in the contract. Renegotiation is something to avoid where possible, as Guasch also explains. Good use of adjustment provisions, as outlined above, can obviate the need for renegotiation.

Still, renegotiations will from time to time be needed, and governments will benefit from understanding good policy for renegotiations. **Partnerships Victoria's Contract Management Manual** [#7 Section 7.3] describes the understanding that public parties should have of the private party's financial health, as well as project performance. While not focused specifically on renegotiation, having this information and understanding will certainly benefit government as it considers decisions that could result in renegotiation.
There are a few examples of renegotiations that may offer some insights into good practice, and which have been documented. These include:

- The **Bucharest Water and Wastewater concession**, in which contract adjustments were made in response to changing needs and new information[109]

- The **Melbourne Tram and Train concessions**. When these concessions were in financial difficulty, the government decided to renegotiate rather than terminate, as this was expected to provide better value for money (see **Ehrhardt and Irwin** [#17]). To provide transparency and quality assurance on the process, the government announced early in the process that, after the negotiations were complete, they would be subject to an ex-post value for money analysis. This analysis was published as an **Auditor General's report** [#18], which describes the renegotiation process and results

- The **United Kingdom National Air Traffic Services (NATS) PPP**, also described by **Ehrhardt and Irwin** [#17], was a more controversial restructuring. The PPP Company faced falling revenue, because of a sharp downturn in air travel after the September 11 2001 terrorist attacks in the United States. The company looked certain to default on its debt. The Board of the Civil Aviation Authority (the public party to the PPP) was split. The Board member directly responsible for the contract insisted the government should not renegotiate, stating the solution was a private sector financial restructuring, in which the lenders to the company would bear some of the losses. The majority of the Board disagreed however, and agreed to change the terms of the contract, as part of a package deal that also involved some debt restructuring.

In contrast to the United Kingdom NATS experience, the government of New South Wales managed to avoid renegotiating the PPP contract for a highway tunnel under Sydney's central business district when it went into financial distress. Instead, the matter was left to be resolved entirely through a private sector financial restructuring.[110] **Johnston and Gudergan** subsequently reviewed the experience to draw lessons for PPP governance [#19].

### 3.7.3.3 Disputes

Contractual disputes arise when one party believes the other has not done something it was contractually obliged to do, but the other party disagrees as to what its obligations were, or what should be done to remedy the situation.

The **Partnerships Victoria Contract Management Guide** [#7, Section 8.3] includes a section on issue management and dispute resolution. A helpful distinction is made between "issues" and "disputes", as set out in Table 3.7.1.

---

109. Castalia (2010) *Evaluation of the Bucharest Water and Wastewater Concession-Final Report to the IFC*, page 29

110. See a Toll Road News article on the process, available at the following link: http://www.tollroadsnews.com/node/1742. A Joint Select Committee Inquiry is also available online, at: http://www.docstoc.com/docs/76065590/JOINT-SELECT-COMMITTEE-ON-THE-CROSS-CITY-TUNNEL

**Table 3.7.1: Distinction between Service Delivery Issues and Disputes**

| Service Delivery Issues | Disputes |
|---|---|
| Need not involve any difference of opinion or position between the parties | Involves a difference of opinion or position between the parties (by definition) |
| Involve an interruption or other disturbance to service delivery | Need not involve any interruption or other disturbance to service delivery |
| May trigger an abatement of service fees, or other remedies | Generally will not in themselves trigger an abatement of service fees |

Source: Partnership Victoria (2003) *Guidance Material: Contract Management Guide* State Government of Victoria

The **Partnerships Victoria Contract Management Guide** also contains sample Templates for specifying how issues may be escalated [#7, Template M] and disputes resolved [#7, Template N]. The practical advice offered focuses on the desirability of speedy informal resolution of disputes, understanding the other side's position, and avoiding inappropriate dispute processes, since these can damage the long term relationship.

While a focus on finding practical solutions quickly and taking account of the realities of the other side's position will almost always be valuable, countries with different administrative and legal traditions and capacities will not necessarily find it appropriate to seek informal dispute resolution. Rather, it will often be desirable to follow the formal steps set out in the contract—but to do so in a way that is directed toward finding a practical solution.

There are numerous examples of the costs that governments end up bearing as a result of choosing inappropriate dispute resolution methods. For example, the Government of **Tanzania** was justifiably dissatisfied with the performance of the private firm operating the water system in Dar es Salaam. The PPP contract provided a dispute resolution mechanism under which the government could very likely have achieved the redress if sought, and indeed won damages from the contractor.[111] However, as described in a **review of the dispute case** [#20, page 6]:

> *"While the contractual relationship was headed inevitably towards dissolution, Tanzanian Government officials, motivated by electoral concerns, among others, took a series of drastic measures that went far beyond the contractually mandated process for termination of the Project Contracts. In May 2005, Tanzanian Government officials, causing public furor, repudiated unilaterally and rather publicly the lease agreement with City Water while calling on the performance bond posted by BGT, reinstated the previously waived VAT on purchases by City Water, repossessed forcibly the assets previously leased to City Water, and deported City Water's BGT-appointed management"*

Cases of PPP disputes and how they have been handled are available on the **website of the International Center for the Settlement of Investment Disputes** (a part of the World

111. http://www.guardian.co.uk/business/2008/jan/11/worldbank.tanzania

Bank Group).[112] **Overly** [#21] also provides a critical review of the experience of international arbitration, in a range of PPP and similar cases. Many of these cases suggest that governments can minimize the costs of disputes to the public sector if they:

- Act quickly when problems start to arise
- Have teams with the right skills and appropriate levels of decision-making authority working on resolving the issue
- Follow processes set out in the contract
- Look for win-win solutions, taking into account the broader public interest, as well as the private parties' options.

## 3.7.4 Contract Expiry and Asset Handover

The final task in managing a PPP contract is to manage the transition of assets and operations at the end of the contract term. The approach to this transition should be clearly defined in the contract. As set out in **Section 3.4: Designing PPP Contracts**, this typically includes defining how quality of the assets will be defined and assessed, whether a payment will be made on asset handover, and how the amount of any payment will be determined. Options include clearly specified handover requirements, or the involvement of independent assessors.

As noted in **The World Bank's toolkit for PPPs in roads and highways** section on hand back of facilities at contract end [#22, Module 5, Stage 5], there has been relatively limited practical experience in completion of PPP agreements. Equally, there is limited practical guidance on dealing with this stage of contract management. An exception is the **United Kingdom Operational Taskforce's guidance note on contract expiry** [#1D]. This note describes four steps to managing contract expiry: determining future asset and service requirements; determining future service delivery strategy; reviewing exit provisions; and managing the transfer to the new arrangements.

| Key References: Managing PPP Contracts | | |
|---|---|---|
| Reference | | Description |
| 1 | HM Treasury, United Kingdom *Operational Taskforce Notes*. Includes:<br>(A) HM Treasury (2006) *Operational Taskforce Note 1: Benchmarking and Market Testing Guidance*<br>(B) HM Treasury (2007) *Operational Taskforce Note 2: Project Transition Guidance*<br>(C) HM Treasury (2008) *Operational Taskforce Note 3: Variations Protocol for Operational Projects*<br>(D) HM Treasury (2009) *Operational Taskforce Note 4: Contract Expiry Guidance* | Provides detailed guidance for PPP implementing agencies on four elements of PPP contract management: benchmarking and market testing; "project transition", which covers setting up a contract management framework; managing contract variations; and managing contract expiry |

112. See the ICSID website at the following link: http://icsid.worldbank.org/ICSID/Index.jsp

| Key References: Managing PPP Contracts | | |
|---|---|---|
| Reference | | Description |
| 2 | 4Ps (2007) *A Guide to Contract Management for PFI and PPP Projects*, Public Private Partnerships Programme | Provides guidance intended for local authorities in the United Kingdom responsible for monitoring PPP contracts: from setting up the contract management approach, to managing service performance, relationships, and contract administration. Includes checklists and a "troubleshooting" guide as appendices |
| 3 | South Africa National Treasury (2004) *National Treasury PPP Manual Module 6: Managing the PPP Agreement*, National Treasury PPP Practice Note Number 07 of 2004 | A comprehensive guide to PPP agreement management in South Africa, from setting up the institutional framework, to managing over the project lifetime, dealing with change, through to the end of the contract. Describes two key tools: the PPP Agreement Management Plan, and the PPP Agreement Management Manual |
| 4 | Farquharson, Torres de Mästle, and Yescombe with Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets*, PPIAF, World Bank | Chapter 10: After Signing provides an overview of what is needed for successful contract management, with an emphasis on experience in emerging markets. It includes tips on managing contracts, and a case study on contract management for a water concession in Sofia, Bulgaria |
| 5 | Juan Carlos Zevallos Ugarte (2011) *Concesiones en el Perú: Lecciones Aprendidas* (*Concessions in Peru: Lessons Learned*) Fondo Editorial de la USMP | Describes lessons learned from Perú's PPP program, including a description of the regulatory and contract monitoring arrangements |
| 6 | World Bank and PPIAF (2006) *Approaches to Private Participation in Water Services: A Toolkit*, World Bank | Section 7 provides guidance on developing institutional arrangements to manage the PPP contract relationship. It includes guidance on how to decide which government institution should be allocated which role, on relationship management, and tools to deal with change |
| 7 | Partnership Victoria (2005) *Guidance Material: Contract Management Guide*, State Government of Victoria | Describes key elements of effective relationship and contract management, and provides detailed guidance, and templates and tools, on all stages of contract management |
| 8 | Government of India (2009) *Guidelines for Monitoring of PPP Projects* | Describes institutional frameworks for monitoring PPPs, and includes annexes with sample monitoring reports |
| 9 | Report by the Comptroller and Auditor General, National Audit Office United Kingdom (2001) *Managing the Relationship, to Secure Successful Partnership in PFI Projects*, National Audit Office | This report was based on a survey of contractors and government officials on what makes for successful PFI contract management. It emphasizes the need for: public authorities to address the question of contract management early in the project preparation; appropriate skills in the public authority; and an open and cooperative attitude |
| 10 | Quick, Roger (2003) *Long-term ties: Managing PPP contracts*, Public Infrastructure Bulletin: Vol. 1: Issue 2, Article 5 | Briefly describes key features of successful contract management arrangements, drawing on Australian experience |
| 11 | UNESCAP (2011) *A Guidebook on Public-Private Partnership in Infrastructure*, United Nations | Chapter 6 provides guidance on contract management intended for developing country governments, focusing on institutional arrangements and dispute resolution |

| Key References: Managing PPP Contracts | | |
|---|---|---|
| | Reference | Description |
| 12 | Groom, Halpern and Ehrhardt (2006) *Explanatory Notes on Key Topics in the Regulation of Water and Sanitation Services*, Water Supply and Sanitation Sector Board Discussion Paper Series No. 6 | Note 4 describes the relationship between sector regulation and PPP contracts |
| 13 | European PPP Expertise Centre (EPEC) (2011) *A Guide to Guidance: Sourcebook for PPPs*, Version 2, February 2011 | Chapter 4: Project Implementation, Section 4.1: Contract Management describes and provides links to further references on some key issues in contract management, including attributing management responsibilities, managing project delivery, managing change, dispute resolution, and termination |
| 14 | World Bank Body of Knowledge on Infrastructure Regulation, available online at http://www.regulationbodyofknowledge.org/ | Section IV: Price Level Regulation describes key issues in tariff regulation, and guides readers in accessing a wide range of references. |
| 15 | United Kingdom Department of Health PFU & PPP Forum (2006) *Benchmarking and Market Testing in NHS PFI projects: Code of Best Practice*, Department of Health | Provides guidance intended for contract managers on how to use market testing exercises to review the cost of "soft" services in health sector PPPs |
| 16 | Guasch (2004) *Granting and Renegotiating Infrastructure Concessions: Doing it Right*, World Bank Institute | Reviews the occurrence and drivers of re-negotiation in PPP contracts in Latin America, and provides some policy lessons for reducing the prevalence of early renegotiations |
| 17 | Ehrhardt and Irwin (2004) *Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy toward Leverage, Risk Allocation, and Bankruptcy*, World Bank Policy Research Working Paper 3274, April 2004 | Describes the experience of default and re-negotiation in several PPP contracts including the Melbourne Tram and Train concession, and the United Kingdom National Air Traffic Services PPP |
| 18 | Auditor General Victoria (2005) *Franchising Melbourne's Tram and Train System*, Victorian Government Printer | Reviews the renegotiation process for the Victoria Tram and Train system PPP, as well as describing the difficulties with the original franchises that led up to renegotiation |
| 19 | Johnston and Gudergan (2007) *Governance of Public-Private Partnerships: Lessons Learnt from an Australian Case?* International Review of Administrative Sciences December 2007 73: 569-582 | Reviews the experience of the Sydney Cross-City Tunnel PPP contract, drawing lessons for PPP contract management |
| 20 | White and Case (2009) *No Remedy for an Investor's own Mismanagement: The Award in the ICSID Case Biwater Gauff v. Tanzania*, International Disputes Quarterly Winter 2009 | Reviews the international arbitration settlement of a water service PPP in Tanzania |
| 21 | Overly (2010) *When Private Stakeholders Fail: Adapting Expropriation Challenges in Transnational Tribunals to New Governance Theories*, Ohio State University Law Journal Volume 71 No. 2 | Describes challenges in international arbitration mechanisms, with case studies of arbitrations |
| 22 | PPIAF (2009) *Online Toolkit for Public Private Partnerships in Roads and Highways*, World Bank | Module 5: Implementation and Monitoring includes a section on "hand back of facilities at contract end", which describes some key considerations at this stage |


World Bank
Institute
THE WORLD BANK
PPIAF
PUBLIC-PRIVATE INFRASTRUCTURE ADVISORY FACILITY