



Public-Private Partnerships **Reference Guide**

Version 2.0

Public-Private Partnerships

Reference Guide

Version 2.0



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Foreword

This second version of the PPP Reference Guide, as the first one, presents a global overview of the diversity of approaches and experiences in the implementation of PPPs, providing an entry point to the substantial body of knowledge on PPPs that has been built up by practitioners in governments, the private sector, international institutions, and academics. With due care not to increase the overall size of the Guide, this version includes new references and examples.

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, jointly developed by the World Bank, the Asian Development Bank (ADB) and the Inter-American Development Bank (IDB), was funded by a grant from the Public-Private Infrastructure Advisory Facility (PPIAF). We are glad to acknowledge PPIAF previous support in creating the first version of this Guide. This second version was developed by a team led by Rui Monteiro of the World Bank PPP Group, and overseen by Clive Harris, PPP Group manager, who enthusiastically sponsored this project since its beginning. David Bloomgarden coordinated IDB's contributions, and Trevor Lewis ADB's contributions. Many PPP experts—too many to list them here—provided advice and suggestions. Shin Kue Ryu and John Saville did extensive research for this version, and—last but not least—Helen Martin had a critical role as its main editor.

This new version will be published in PDF and in a web-friendly version, accessible through the websites of the World Bank, ADB and IDB, through the Global PPP Network website, www.pppnetwork.info, and through www.ppiaf.org.

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July 2014

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 and other interested parties 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 achieve their objectives efficiently and effectively?
- 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* helps readers navigate this 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 are 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.

Version 2.0 of the *Reference Guide* provides new resources and updated examples. However, readers should not expect to find in this *Guide* a presentation of the current status of PPPs in any given country

or sector. The *Reference Guide* rather attempts to provide the most relevant examples and resources—whether most recent or older—to help readers inform themselves on the topics at hand.

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 entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.

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 project functions transferred to the private party—such as design, construction, financing, operations, and maintenance—may vary from contract to contract, but in all cases the private party is accountable for project performance, and bears significant risk and management responsibility. Section 1.1: *What is a PPP: Defining ‘Public-Private Partnership’* provides more information on the range of contract types that constitute PPPs under this definition and the different nomenclature used to describe them.

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 the project involves long-life assets concomitant with the long term of the PPP contract. Throughout this *Reference Guide*, the term ‘infrastructure’ is used loosely to cover this range of sectors and services for which PPPs are used. In this context, ‘infrastructure’ includes economic, social, and government infrastructure—that is, the ‘basic physical and organizational structures’ needed to make economic, social, and government activity possible (using the Oxford English Dictionary definition). Section 1.2: *How PPPs Are Used: Sectors and Services* describes further the range of sectors and services for which PPPs are used.

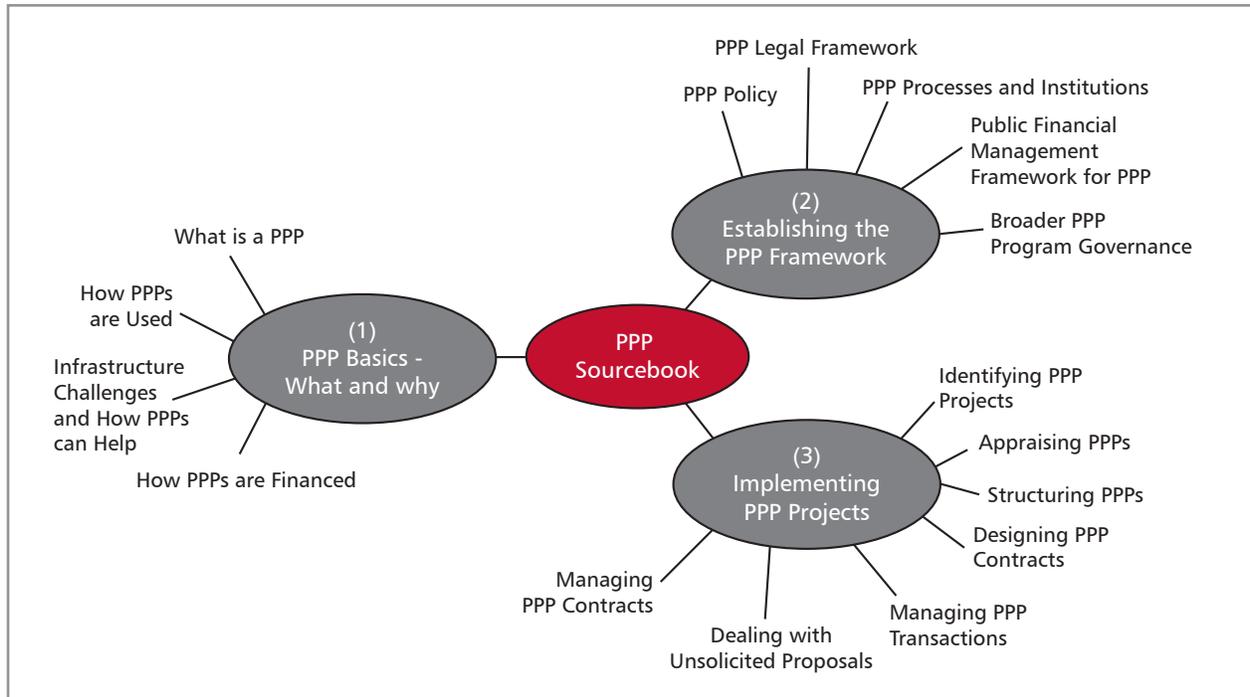
What is in the Reference Guide

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.

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: *PPP Reference Guide Overview*.

Figure 1: PPP Reference Guide Overview



Each section provides a narrative describing the topic, and setting out the guiding principles and practical options that interested government officials should consider. This text is interspersed with references providing more information on key points on each topic. These references are **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 list at the end of the Guide, in which all references are presented—by clicking on the number the reader is sent to that listing; to return to the original page, the reader only needs to click Alt + Left Arrow key. The main references for each section are listed and briefly described at the end of the section.

Table 1: Key Reference Table—Example below provides an example from a “key references” table. In some cases, the reference tables are organized by subject area, within the overall topic. 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.

Table 1: Key Reference Table—Example

Key References: PPP Processes and Institutional Responsibilities	
Reference	Description
Yescombe, E. R. (2013) <i>Public-Private Partnerships: Principles of Policy and Finance</i>, 2nd edition, Elsevier Science, Oxford	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
Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i>, World Bank/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 only in the *Reference list*. The *Reference list* includes all references reported in this *Reference Guide*—books, reports, articles, websites, and so on; with hyperlinks when available. Cross-references are also provided to content elsewhere within the *Reference Guide*, where the subject matters of Sections are linked.

Who should use the Reference Guide

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 2: *PPP Reference Guide Modules and Who Should Read Them* briefly sets out which module will be most useful to which kind of reader, under which circumstances. As noted above, the *Guide* is part synthesis and part bibliography. As such, it may be useful for both the newcomer to the PPP area looking for a structured introduction to key PPP topics, and the expert who may find additional references in some specific area.

Table 2: PPP Reference Guide Modules and Who Should Read Them

Module	Who Should Read It?
Module 1: PPP Basics: What and Why	<ul style="list-style-type: none"> • Anyone who wants to learn more about what PPPs are, and how they can be used to provide infrastructure assets and services • PPP practitioners looking for material to help articulate the benefits and risks of a PPP program to stakeholders within and outside governments
Module 2: Establishing the PPP Framework	<ul style="list-style-type: none"> • Government officials in the process of, or considering, developing or refining the policy, legal, and institutional framework that governs how PPPs are implemented • Finance Ministry officials or other stakeholders concerned about public financial management for PPP programs
Module 3: Implementing PPP Projects	<ul style="list-style-type: none"> • Government officials responsible for developing or refining PPP processes • Those responsible for developing, assessing, or implementing PPP projects, or for engaging advisors to support the PPP process—including PPP practitioners looking for tips from global experience • Other stakeholders interested in learning more about how PPPs work.



MODULE 1

PPP Basics - What and Why

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

- Section 1.1: *What is a PPP*: Defining ‘Public-Private Partnership’ delves in more detail into the definition of PPP: describing the range of PPP contract types, and clarifying how PPPs relate to a broader range of ‘partnerships’ between the public and private sectors
- Section 1.2: *How PPPs Are Used: Sectors and Services* describes the range of sectors and services for which PPPs have been used, with links to a wide range of international PPP examples.
- Section 1.3: *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 1.4: *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 What is a PPP: Defining ‘Public-Private Partnership’

The overall introduction to this *Reference Guide* provided a broad definition of PPP, as a ‘long-term contract between a private party and a government entity, for providing a public asset or service, in which the private

party bears significant risk and management responsibility, and remuneration is linked to performance'. This section delves into that definition in more detail: describing (in Section 1.1.1) the range of PPP contract types, and the different nomenclature used to describe those contract types; as well as clarifying (in Section 1.1.2) some related types of 'partnership' between public and private sector parties to which the definition, and more importantly the guidance material, in this *Guide* would generally not apply.

1.1.1 PPP Contract Types and Terminology

A Public-Private Partnership (PPP), as defined above, comprises a long-term contract between a government entity and a private firm. However, this broad definition encompasses a range of contract types, which can be described in different ways—there is no standard, internationally accepted definition of PPP, and different jurisdictions use different nomenclature to describe similar projects. This section describes in more detail the range of PPP contract types under the definition of PPP used in this Reference Guide; and some of the more common terminology used globally to describe PPPs.

PPP Contract Types

Throughout this *Reference Guide*, PPPs are described in terms of three broad parameters: first, the type of asset involved; secondly, what functions the private party is responsible for; and thirdly, how the private party is paid.

Many PPPs involve new **assets**—often called 'greenfield' projects. For example, the United Kingdom's PPP program—called the Private Finance Initiative (PFI)—involved private companies in financing, building, and managing new public assets, from schools and hospitals to defense facilities. PPPs can also be used to transfer responsibility for upgrading and managing existing assets to a private company—those are called 'brownfield' projects. In either case, a key feature of a PPP is that the assets or services provided are specified in terms of outputs rather than inputs—that is, defining what is required, rather than how it is to be done.

A central characteristic of a PPP contract is that it 'bundles' together multiple project phases or functions. Nonetheless, the **functions** for which the private party is responsible vary, and can depend on the type of asset and service involved. Typical functions can include the following:

- **Design** (also called 'engineering' work)—means developing the project from initial concept and output requirements to construction-ready design specifications
- **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 may be 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 1.4: *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

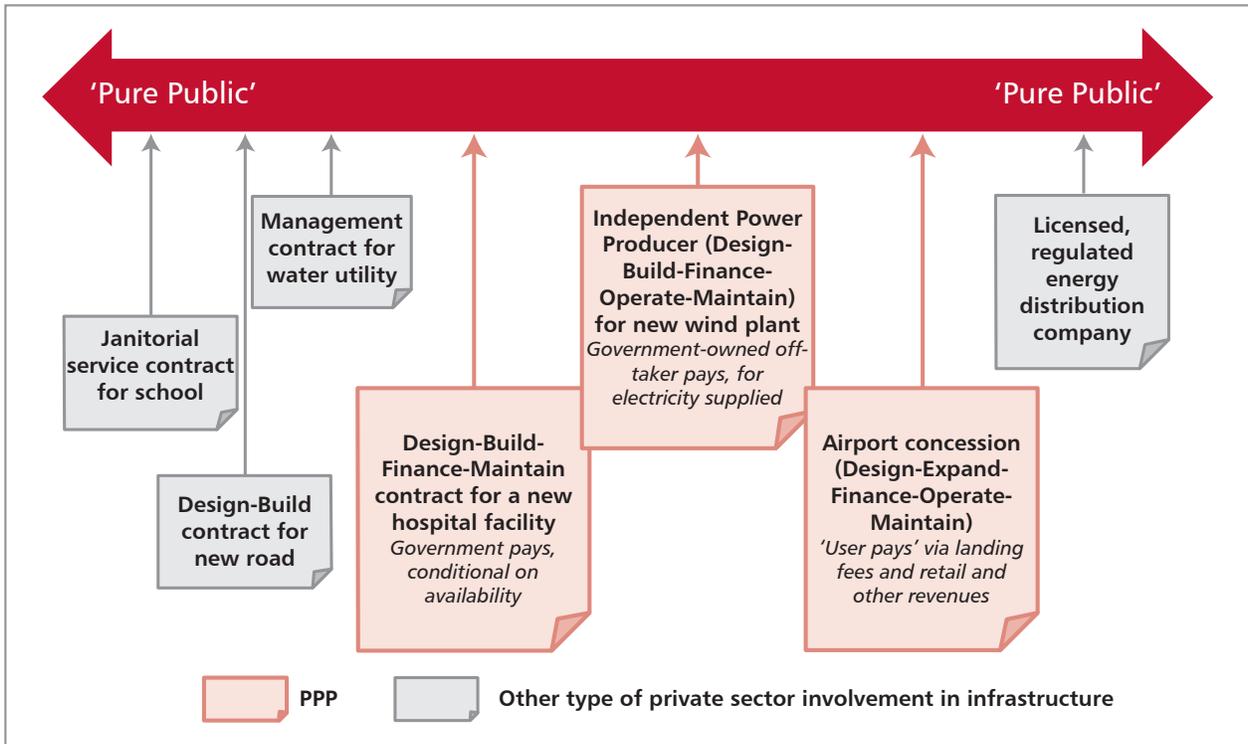
- **Operate**—the operating responsibilities of the private party to a PPP can vary widely, depending on the nature of the underlying asset and associated service. For example, the private party could be responsible for:
 - Technical operation of an asset, and providing a bulk service to a government off-taker—for example, a bulk water treatment plant
 - Technical operation of an asset, and providing services directly to users—for example, a PPP for a water distribution system
 - 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—with the common, defining characteristic that payment is contingent on performance. 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 to the operator.

These characteristics can be combined in various ways, to create a wide range of PPP contracts. Figure 1: *PPP Reference Guide Overview* provides some examples. As [Figure 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](#) also includes examples of arrangements that would not usually be considered as PPP. These ‘adjacent’ arrangements are described further below in Section 1.1.2: *What PPP is Not: Other Types of Private Involvement*.

Figure 1.1: Examples of PPP Contract Types



PPP Terminology

While PPP contracts can generally be categorized using the parameters above, there is no consistent, international standard for defining PPPs and describing these different types of contract. This varying terminology can create confusion when comparing international experience—hence this Reference Guide consistently uses 'PPP' to describe the wide range of contract types, irrespective of the terminology in the particular country or jurisdiction.

Some governments define 'PPP' in their PPP policies or laws to mean a specific range of contract types, as described in Section 2.1: *PPP Policy*. These definitions may incorporate all or some subset of the contract types described above. For example, Brazilian law distinguishes between user-pays and government-pays projects. PPP projects that are fully paid for by charging users are governed by the 'Concessions Law', while other PPP projects are governed by the 'PPP Law'—accordingly, only the latter are commonly referred to as 'PPP'. A similar distinction is made in France, where the term 'PPP' is restricted to government-pays contracts implemented under the 'PPP Law'—again, user-pays contracts are typically referred to as concessions.

At the same time, other terms can be used as synonyms for PPP in general, or to refer to particular types of PPP—either in law, or in common usage. 'Concession' is sometimes used to refer to specific types of PPP (as is the case in Brazil, as noted above, where a 'concession' is a fully user-pays PPP), while in other cases it is simply a synonym for PPP (for example, in Chile all PPPs are called 'concessions', and implemented under

the country's 'concessions law'). In the United Kingdom, Government-pays PPPs for new assets are known as 'Private Finance Initiative' or PFI projects; while PPPs for existing assets (such as hospitals, or railways) are sometimes known as 'franchises'. It is not uncommon to hear the process of entering into a PPP referred to as 'privatization', or for the resulting assets to be termed 'private'—although this reference guide makes a distinction between PPP and privatization, as described further in the following section.

Different nomenclature can also be used to distinguish different PPP contract structures. In some cases, PPPs are described by the functions transferred to the private party. For example, a 'Design-Build-Finance-Operate-Maintain', or DBFOM contract would allocate all those functions to the private party. Other nomenclatures such as 'Build-Operate-Transfer' focus rather on the legal ownership and control of the assets.

Table 1.1: *PPP Nomenclature* explains 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** [#59] 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'** [#295], which also describes the range of PPP structures and how these are classified
- **Farquharson et al chapter on 'Defining Public-Private Partnerships'** [#95, pages 9-14], which focuses on how PPPs differ from privatization and management contracts; and describes user-fee and availability-based PPPs
- **The World Bank explanatory notes on key topics in water sector regulation** [#122, Note 4] describe common contract types for managing existing assets in the water sector: concession, lease or affermage, and management contracts
- **The World Bank's PPP in Infrastructure Resource Center website** describes a spectrum of PPP types based on the extent of private sector's participation. It is available at <http://ppp.worldbank.org/>

Section 3.3: *Structuring PPP Projects* also provides further guidance and links on PPP contract structures, and how governments can decide which to use for a particular project.

Table 1.1: PPP Nomenclature

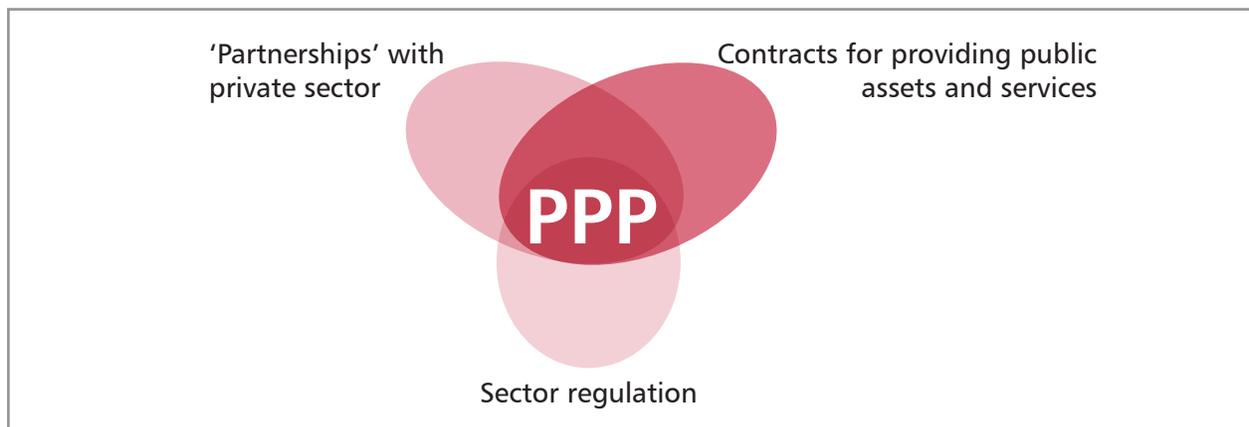
Contract Nomenclature	Overview Description and Reference	Type of Asset	Functions Transferred	Payment Mechanism
Design-Build-Finance-Operate-Maintain (DBFOM); Design-Build-Finance-Operate (DBFO); Design-Construct-Manage-Finance (DCMF)	Under this nomenclature, the range of PPP contract types is described 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
Operations and Maintenance (O&M)	O&M contracts for existing assets may come under the definition of PPP where these are performance-based, and long-term (sometimes also called performance-based maintenance contracts)	Existing infrastructure	Operations and maintenance	Government 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 [#295] describes. In contrast, a Build-Transfer Operate (BTO) contract, asset ownership is transferred once construction is complete. As Delmon [#58, 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)	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 [#59, Box 1 on page 9]. In some jurisdictions, concession may imply a specific type of contract; while in others it is used more widely. 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 user-pays contracts; a distinct ‘PPP Law’ regulates contracts that require some payment from government. 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	Usually 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. ‘Affermage’ in particular may have a specific meaning in some jurisdictions. The World Bank’s explanatory notes on water regulation [#122, pages 36-42] describe lease contracts, as well as concessions. Such contracts may or may not come under the definition of PPP, depending on the duration of the contract.	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 Nomenclature	Overview Description and Reference	Type of Asset	Functions Transferred	Payment Mechanism
Franchise	'Franchise' is sometimes used to describe an arrangement similar to either a concession or a lease or affermage contract, as described in Yescombe [#295].	Existing or new	May include design, build, and finance; or may be limited to maintaining and operating an asset	May be user or government pays
Private Finance Initiative (PFI)	The United Kingdom was one of the first countries to introduce the PPP concept, under the term 'Private Finance Initiative'. '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

1.1.2 What PPP is Not: Other Types of Private Involvement

Besides setting out what is defined as a PPP for the purpose of this Reference Guide, it is also helpful to clarify what is not. Figure 1.2 illustrates the intersection between PPP and three related concepts, described in turn below: other types of contract with the private sector for providing public assets and services; other types of 'partnerships' with the private sector; and regulation of private sector service provision.

Figure 1.2: Examples of PPP Contract Types



Other types of contract for providing public assets and services

Governments enter into a wide range of contracts with private companies. Some of these contract types share some or all of the typical PPP characteristics—such as being long-term, output based, or performance-related. For example, these include:

- **Management contracts** typically include similar performance indicators and requirements to PPPs. However, these contracts are typically of shorter duration as PPPs, and do not involve significant private

capital investment—with performance incentives created primarily through payment and penalties schemes. The **World Bank’s explanatory notes on water regulation** [[#122](#), pages 36-42], for example, describe how management contracts are used in the water sector. Operations and Maintenance (O&M) and performance-based maintenance contracts may also fall outside the definition of PPP where these contracts are of short duration

- **Design-build, or ‘turnkey’ contracts** include similar output-based specifications; however, as shorter-term contracts they do not create the same long-term performance incentives as PPPs
- **Financial lease contracts** are long-term contracts for providing public assets. However, these contracts transfer significantly less risk to the private party than PPPs.

While the material in this *Reference Guide* focuses on PPP arrangements, many of the references provided in this guide may also be useful for governments considering these related contractual arrangements; conversely, some references dealing with these contract types are provided, where these may provide applicable lessons for PPPs. However, readers should bear in mind that the differences in risk allocation can make for significant differences in bidding and operational behavior.

Other concepts of ‘public-private partnerships’

The expression ‘public-private partnership’ is also sometimes used for several other types of arrangements between public and private entities that contribute to public policy goals. These can include, for example:

- Information-sharing mechanisms, such as a ‘public-private partnership’ against healthcare fraud in the United States involving the federal government, state officials, several leading private health insurance organizations, and other health care anti-fraud groups
- Voluntary activities undertaken by private companies towards public ends and in coordination with relevant authorities, such as community health or education projects attached to major foreign direct investment projects
- Private funding of public investment projects on a philanthropic basis, which may involve some private involvement in project execution
- Jointly-run projects for research and innovation, formed to draw on skills and information in both the public and private sectors
- Government interventions to support private sector development in general, or in particular target sectors—such as providing land, assets, debt, equity or guarantees to otherwise fully private enterprises that are not involved in provision of public services.

While all types of partnership, these arrangements are very different to the contracts discussed in this *PPP Reference Guide*: in duration, objectives, and legal status and structure. As such, the principles, policy arrangements, and processes described in this guide are of limited relevance to these other types of public-private ‘partnership’.

PPPs and sector regulation

PPPs often deal with the supply of essential services in monopoly (or near-monopoly) conditions. Private monopoly essential service providers are typically regulated by government to control tariffs and service standards—often by assigning responsibilities to an independent regulatory agency—to protect customers from possible abuse of market power. Sector regulation may also govern the terms on which providers in a sector deal with each other; entry to the sector through licensing; and control over sector investment decisions. 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.

There are several ways in which PPPs relate to the concept of sector regulation, in the context of natural monopoly sectors:

- **PPP and privatization as alternative reform options.** Governments looking at options to improve performance of existing public assets and services in these sectors may consider a PPP as an alternative sector reform option to privatizing and establishing a regulatory regime. While there are similarities in the processes of establishing a PPP and privatizing, and some of the guidance in this book may be applicable in both cases, the nature of the resulting relationship is distinct.
- **Regulation by contract through a PPP.** When PPPs are introduced in sectors that would typically be regulated, the PPP contract itself can be used to define tariffs and service standards in a way that protects customers' interests—as an alternative to establishing a regulatory regime. [Box 1.1](#) presents some examples of 'regulation by contract'; some of the implications for PPP contract design are described further in [Section 3.3: Structuring PPP Projects](#)
- **PPP alongside sector regulation.** Some countries decide to establish sector regulatory regimes when introducing a PPP for service provision in a sector; including in some cases to act as government party to the contract. In other cases, sector regulation may already be in place. In either case, the PPP agreement and sector law and regulations need to be carefully harmonized—to ensure there is no conflict between the PPP contract and regulatory requirements, and to establish clear roles and responsibilities. [Section 2.3.2: Institutional Responsibilities: Implementation](#) provides more examples of the roles of sector regulators in developing, implementing, and managing PPPs.

The Body of Knowledge on Infrastructure Regulation [[#288](#)] 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** [[#296](#), 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** [[#122](#)] 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** [[#66](#)] 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** [[#4](#), [#5](#)] focus on establishing predetermined rules for committing regulators to future actions, and building confidence in the regulatory system to attract private investors.

Regulation is not limited to sectors involving the provision of essential services in monopoly or near-monopoly conditions. Regulatory frameworks can also be used to overcome other market failures, such as to ensure responsible management of limited natural resources. In some cases the processes and structures can bear resemblance to a PPP—for example, a concession for mining or petroleum exploration or exploitation, or for management of a tourism site. There can also be some muddy ground between these types of regulation, where some aspect of provision of essential services through a competitive market requires access to limited resources—such as allocation of radio spectrums for mobile telecommunications, or access to hydropower or other resources for electricity generation in the context of a competitive market. While there are some similarities between such concessions or licensing procedures and PPPs, for the most part the contract structures involved in such cases are distinct, and the material in this *Reference Guide* is of limited relevance in such cases.

Box 1.1: Regulation by Contract

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 set 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 1990s, the government implemented reforms to bring in private operators under an affermage and performance contract to 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 [[#272](#)]
- 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 [#63]

- The Bucharest water concession, in 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.

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? [#26] and Explanatory Notes Series on Key Topics in Regulation of Water and Sanitation Services [#122].

Key References: What is a PPP	
Reference	Description
Delmon, Jeffrey (2010) <i>Understanding Options for Private-Partnership Partnerships in Infrastructure</i>, 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
Yescombe, E. R. (2013) <i>Public-Private Partnerships: Principles of Policy and Finance</i>, 2nd edition, Elsevier Science, Oxford	Chapter 1 “What are Public-Private Partnerships” describes the range of PPP structures and how these are classified
Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i>, World Bank/PPIAF	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
Eric Groom, Jonathan Halpern & David Ehrhardt (2006) <i>Explanatory Notes on Key Topics in the Regulation of Water and Sanitation Services</i>, World Bank	Note 4 “regulation and private sector contracts” describes typical features of concession, lease, and management contracts in the water sector
H. K. Yong (ed.) (2010) <i>Public-Private Partnerships Policy and Practice: A Reference Guide</i>, London: Commonwealth Secretariat	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
Anton Eberhard (2007) <i>Infrastructure Regulation in Developing Countries: An Exploration of Hybrid and Transitional Models</i>, Working Paper No.4, World Bank	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
Ian Alexander (2008) <i>Regulatory Certainty Through Committing to Explicit Rules – What, Why and How?</i> Paper based on a presentation made at the 5th Annual Forum of Utility Regulators (AFUR) conference, Accra, Ghana	Focuses on the establishment of predetermined rules committing regulators to future actions

<p>Ian Alexander (2007) <i>Improving the Balance Between Regulatory Independence, Accountability, Decision-making and Performance</i>. Paper prepared for 4th Annual Forum of Utility Regulators (AFUR) conference, Livingstone, Zambia</p>	<p>Focuses on the importance of investor confidence in the regulatory regime</p>
<p>Tonci Bakovic, Bernard Tenenbaum & Fiona Woolf (2003) <i>Regulation by Contract: A New Way to Privatize Electricity Distribution?</i>, World Bank Working Paper 14</p>	<p>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</p>

1.2 How PPPs Are Used: Sectors and Services

PPPs have been used in a wide range of sectors, to provide many different kinds of assets and services. As noted in the introduction to this *Reference Guide*, there are two primary defining characteristics of the sectors and services for which PPPs are used: first, that the project constitutes or contributes to provision of public assets and services, and second, the project involves long-life assets concomitant with the term of the PPP contract.

In practice the definition of ‘public services’ may vary from country to country, and over time. The material presented in this *Reference Guide* is neutral to this definition; considering as ‘public services’ any service that the relevant government considers its responsibility to provide or ensure is provided. The focus on long-term assets reflects the long-term nature of a PPP contract. For the most part this means PPPs deal with fixed assets; but may also include related long-life assets that are somewhat purpose or site-specific, such as train rolling stock. Table 1.2: *PPPs by Sector—Examples and Resources* 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 within this broad definition, as described in Section 2.1 *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 [#178]. On the other hand, the pioneering PPP hospital project in Lesotho included the provision by the private operator of the full range of health services [#155].

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

- **Farquharson et al’s** book on PPPs in emerging markets [#95] 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** [#296, pages 87-104] chapter on recent PPP experience in Commonwealth developing countries

includes 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** [#93] 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** [#187] 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
- **Asian Development Bank’s scoping study on irrigation and drainage** [#9] identifies the areas where private sector participation can be envisaged in consonance with India’s policy framework
- **The International Finance Corporation (IFC)’s Handshake series** [#155] comprises quarterly publications, each focusing on the use of PPPs in a different sector or context
- The **PPIAF website** [#209] 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** [#80], which provide a detailed review of country experience and list of PPP projects throughout the region.

Table 1.2: PPPs by Sector—Examples and Resources

Sector	Project Types	Overview Sources
Transport	Roads, tunnels, and bridges Rail Mass transit systems Ports 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 [#265] Menzies and Mandri-Perrott’s publication on private sector participation in light rail [#183, 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 Water distribution and sewerage systems Solid waste management services	Marin [#180] reviews in detail experience with PPPs for urban water utilities in developing countries, drawing from over 65 PPPs
Power	Generation assets Distribution systems	Eberhard and Gratwick [#65] describes the experience with Independent Power Producers (IPP) in Sub-Saharan Africa
Social and Government infrastructure	Education—school facilities and services Health—hospitals and other health facilities and services Prisons Urban regeneration and social housing projects	A Deloitte report on how PPPs can help “close the infrastructure gap” [#68, pages 19-28] provides a helpful overview of PPP experience in a wide range of sectors, particularly social infrastructure. IFC’s Handshake [#155] publication presents examples and cases on healthcare and other economic and social infrastructure PPPs LaRocque’s paper on contracting for the delivery of education services [#174] includes examples of PPPs in the education sector. A Business News Americas report on social infrastructure concessions [#41] describes recent experience in Latin America with PPPs across social sectors

Key References: How PPPs are Used	
Reference	Description
Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i> , World Bank/PPIAF	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
Yong, H. K. (ed.) (2010) <i>Public-Private Partnerships Policy and Practice: A Reference Guide</i> , London, UK: Commonwealth Secretariat	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
Farlam, P. (2005) <i>Working Together: Assessing Public-Private Partnerships in Africa</i> (Nepad Policy Focus Report No. 2), Johannesburg, 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
Mumssen, Y., L. Johannes & G. Kumar (2010) <i>Output-Based Aid: Lessons Learned and Best Practices</i> , 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
DLA Piper (ed.) (2009) <i>European PPP Report 2009</i>	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
United States Department of Transportation (Federal Highway Administration) (2007) <i>Case Studies of Transportation PPPs around the World (Final Report Work Order 05-002)</i> Washington, DC	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
Menzies, Iain & Cledan Mandri-Perrott (2010) ‘Private Sector Participation in Urban Rail’, <i>Gridlines</i> , 54, 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
Marin, P. (2009) <i>Public-Private Partnerships for Urban Water Utilities: A Review of Experiences in Developing Countries</i> (Trends and Policy Options No. 8), World Bank	Reviews the experience of 65 PPPs in the water sector in developing countries, finding consistent improvements in efficiency and service quality
Anton Eberhard & Katharine Nawal Gratwick (2010) <i>IPPs in Sub-Saharan Africa: Determinants of Success</i> , Update of paper published in Development Policy Review 2008	Reviews experiences of Independent Power Producers (IPP) in Sub-Saharan Africa, including a comprehensive list and details of all IPP projects in the region
Eggers, W. D. & T. Startup (2006) <i>Closing the Infrastructure Gap: The Role of Public-Private Partnerships</i> , New York: 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
International Finance Corporation, <i>IFC’s Quarterly Journal on PPPs</i> , thematic issues, for instance: <i>Healthcare</i>	The issue on Healthcare 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
LaRoque, N. (2006) <i>Contracting for the Delivery of Education Services: A Typology and International Examples</i> , <i>Fraser Forum</i> , September, 6-8	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
Business News Americas (2011) <i>Social Infrastructure: The New Frontier for Concessions</i> , <i>Infrastructure Intelligence Series</i>	Describes recent experience with PPP in social infrastructure sectors in Chile, Mexico, Peru, and Brazil

1.3 Infrastructure Challenges and How PPPs Can Help

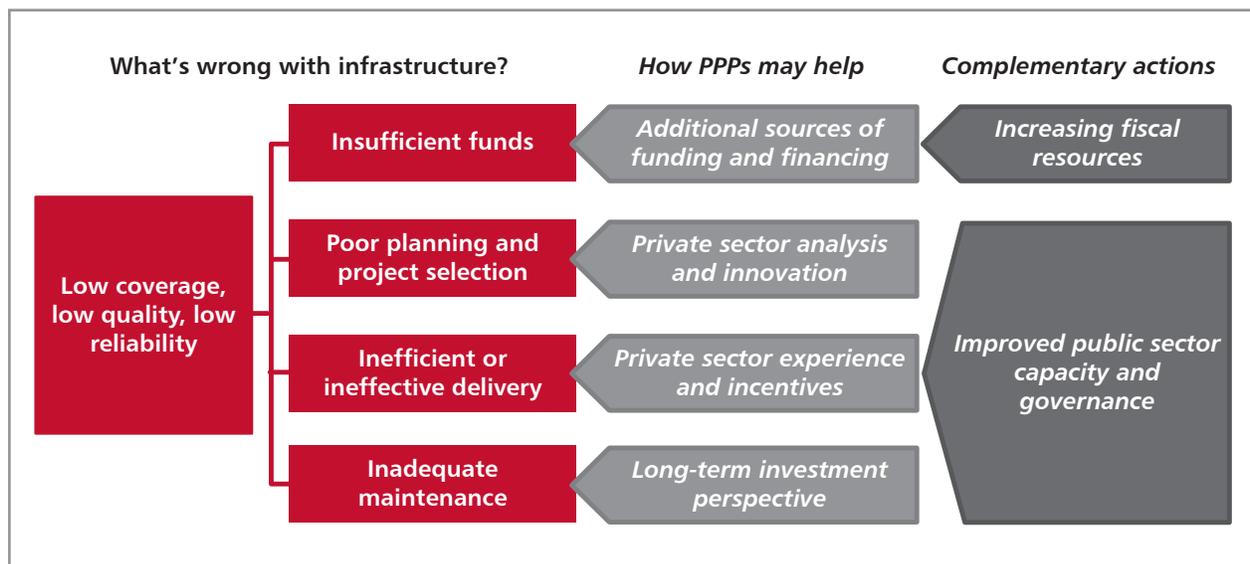
Inadequate infrastructure is a constraint on growth worldwide, particularly in developing countries. Infrastructure services are often inadequate to meet demand, resulting in congestion or service rationing. Infrastructure services are also often of low quality or reliability, while many areas are simply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

This section examines whether and **how PPPs can help overcome some of these pervasive challenges**, as illustrated in Figure 1.3: *What’s Wrong with Infrastructure and How PPPs Can Help*. Under the right circumstances, PPPs can mobilize additional sources of funding and financing for infrastructure. By subjecting assumptions to the market test of attracting private finance, PPPs can go some way to improving project selection. 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—typically attributed to the incentives created by the PPP structure. Finally, the longer-term investment perspective under PPP contracts can also help to ensure adequate maintenance keeps assets in a serviceable condition.

Figure 1.3: 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 1.2: *PPP Value Drivers* are often integrated into PPP policies.

PPP limitations, pitfalls, and complementary measures needed

There are problems that PPPs cannot 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 adoption of innovative ideas and practices, responsibility for planning and project selection still remains primarily with the public sector—moreover, the unclear fiscal costs and contractual inflexibility of PPPs can make these tasks more difficult. 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.

These limitations mean that PPPs cannot be seen as a panacea to solve infrastructure performance problems. Figure 1.3: *What’s Wrong with Infrastructure and How PPPs Can Help* also highlights other important ingredients for improved infrastructure delivery. Sound public decision-making resulting from adequate capacity and governance are necessary prerequisites for successful PPPs or public investment projects. Evidence suggests that improved management could go a long way to reducing infrastructure shortfalls, by making better use of existing infrastructure and more efficient use of public resources on new projects. Ultimately many governments may simply need to commit more resources to investing in infrastructure.

This section describes each of the four problems with infrastructure project implementation shown in Figure 1.3: *What’s Wrong with Infrastructure and How PPPs Can Help* describing whether and how PPPs may be able to help, as well as PPP limitations or pitfalls that may exacerbate the problem.

Box 1.2: PPP Value Drivers

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

- **Whole-of-life costing**—full integration, under the responsibility of one party, of up-front design and construction with ongoing 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
- **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

Upfront commitment to adequate maintenance, and predictability and transparency of whole-of-life costs—a PPP requires an upfront commitment to the whole-of-life cost of providing the asset over its lifetime, building in appropriate maintenance. This both provides budgetary predictability over the life of the infrastructure, and reduces the risks of funds not being made available for maintenance after the project is constructed

- **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
- **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
- **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 timeframe. If performance requirements are not met, service payments to the private sector party may be abated.

The **Partnerships Victoria’s Practitioner’s Guide** [#19] published in 2001 clearly set value drivers as the basis for the State of Victoria, Australia’s PPP program. **PricewaterhouseCoopers (PWC)’s paper** on the “PPP promise” [#208, pages 13-34] and **Deloitte’s paper on PPPs** [#68, pages 5-9] both succinctly describe these benefits of PPP.

1.3.1 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:

- In 2010, the **World Bank’s diagnostic study of infrastructure in Africa** estimated that Sub-Saharan Africa needed to spend US\$93 billion a year on infrastructure, of which only US\$45 billion was 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 [#106, pages 6-9, and 65-86]

- According to the **2013 IDB infrastructure strategy**, the additional investment needed in infrastructure in Latin America amounted to US\$100 billion per year—2 percent of regional GDP [#152]
- 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 [#192, Chapter 1].
- **McKinsey** [#179] estimates \$57 trillion in infrastructure investment will be globally required between 2013 and 2030—simply to keep up with projected global GDP growth. The \$57 trillion required investment is more than the estimated value of today’s worldwide infrastructure.

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 found 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 [#106, pages 65-86].

How PPPs can help: infrastructure funding and finance

Many governments turn to PPPs because they recognize that more investment in infrastructure is needed, but the government cannot ‘afford’ to undertake additional 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 project in question, and of a government’s particular funding and financing constraints.

Some types of PPP can help **increase the funding available for infrastructure**—that is, bring in more revenue to pay for infrastructure services, including:

- **Increased revenue from user fees**—by introducing user charges, or reducing leakage in the collection of charges. 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 [#93, pages 9-10]
- **New revenue streams from greater asset utilization.** Raising revenues from alternative uses for infrastructure assets can reduce the cost of the infrastructure to government or users.

Governments can also implement user charges, collect revenues effectively, or find innovative alternative uses for infrastructure—as described in **Engel, Fischer, and Galetovic’s paper PPPs: When and How** [#74, 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 and those charges are collected. However, the authors also note that governments can find it difficult to charge users a cost-reflective tariff for publicly-provided services.

Some governments use PPPs as a financing mechanism to **overcome short-term cash budget constraints**, by spreading the capital cost of a project over its lifetime. Governments implementing cash-based accounting systems recognize the entire capital cost of infrastructure as expenditure when it is incurred, even if it is in practice financed by borrowing. PPPs, by contrast, create cash outflows over time—a **PWC paper on PPPs** illustrates how the payment profile for a PPP differs from that of a traditionally-financed project [#208, pages 17-19]. This can enable governments facing short-term cash budget constraints to undertake infrastructure investment sooner. This accounting advantage for PPPs disappears under a full accrual accounting system, in which capital investments are depreciated over time.

Finally, PPPs may be able to help governments to **overcome public sector borrowing constraints**. Governments often face a borrowing constraint—which may arise from prudent public financial management policies—that means that even commercially viable, fully ‘user pays’ infrastructure projects cannot be implemented in the public sector. Under a PPP the project is financed by private sector rather than public sector borrowing, which may in some circumstances enable a government to overcome this constraint (although as noted in the following section, such projects typically create contingent liabilities that may also affect the sustainability of the government’s debt and fiscal position).

Engel, Fischer, and Galetovic’s paper [#74, 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’ involvement in 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 [#97, pages 17-18, and 27-28].

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 Section 2.4.4: *Fiscal Accounting and Reporting for PPPs*, while international norms and standards continue to evolve, PPP assets and liabilities are increasingly 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.

PPP pitfalls: using PPP to bypass public financial management controls

While there are some instances in which PPPs can increase the ‘fiscal space’ available for infrastructure, these are in practice very limited. In the case of **government-pays PPP projects**, the cost of the infrastructure is ultimately met from the public purse either way—in practice, the payment stream to repay a debt-financed public procurement may be very similar to a stream of availability payments under a PPP for the same project.

Absent real efficiency gains, this means the apparent fiscal advantages of PPP arise from accounting quirks—the limitations of cash budgeting, or the definition of public sector debt. At best, this can create budgeting issues; at worst, it can enable governments to use PPP to bypass their own prudent public borrowing and budget limits—creating a temptation to spend more now, in response to political and other pressures to deliver new and improved infrastructure.

Abrantes de Sousa’s paper on Portugal’s PPP experience [#1] 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—a large British 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 [#248, pages 16-18].

Recognizing these challenges, the treatment of PPP in public sector accounts has evolved over time. The latest public sector accounting standards require most PPP assets and liabilities to be included in government balance sheets, as described in Section 2.4: *Public Financial Management Frameworks for PPPs*. However, at the time a PPP project is approved, the future payment commitments still may not be included in budgets and expenditure plans, which often do not look more than one to three years ahead. Sections 2.4 and 2.4.1 provide guidance on how governments can manage the fiscal implications of PPPs to help avoid these problems.

PPP pitfalls: fiscal risk

Even where a PPP is expected to generate additional resources—for example, by charging users for services—governments typically bear or share certain project risks. For example, governments may provide guarantees on particular risk factors such as demand, exchange rates, or certain costs; while PPP contracts often contain compensation clauses in case of termination of the agreement for a range of reasons.

Accepting these risks could be consistent with good risk allocation, as described in Section 3.3. However, doing so creates contingent liabilities for government—the cost of which can be harder to assess than the direct liabilities and upfront capital costs created by a traditional government investment project. As a result, governments often take on significantly more fiscal risk under PPP projects than they had expected, or than would be consistent with prudent fiscal management.

In this context, the influence of optimism bias on project decision-making (see Section 1.3.2 *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 appears to have no cost. Contracting authorities can also have an incentive to over-estimate demand in order 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. Moreover, public resources may go into projects that do not really provide value for money, since costs are higher or benefits lower than initially expected.

Irwin’s book on government guarantees [#161, 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 arise from moral obligation or public expectations for government intervention—that create further fiscal risk (see [#206]). 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.

Box 1.3: Excessive Fiscal Risk—Examples from Colombia, Korea, Mexico, United Kingdom provides examples of PPPs for which the government ended up making large, unexpected payments, either as a result of called guarantees or realization of implicit liabilities

Box 1.3: Excessive Fiscal Risk—Examples from Colombia, Korea, Mexico, 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 5,500 km 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 of them 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 bailout the concessions. In total, the government took over 25 concessions and assumed US\$7.7billion 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 GBP100 million of equity into the project company.⁽⁴⁾

Sources: (1) Tim Irwin (2007) *Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects*, World Bank, Washington, D.C.; (2) Kim, Jay-Hyung, Jungwook Kim, Sung Hwan Shin & Seung-yeon Lee (2011) *PPP Infrastructure Projects: Case Studies from the Republic of Korea, Volume 1: Institutional Arrangements and Performance*, Asian Development Bank, Manila, Philippines; (3) and (4) David Ehrhardt & Tim Irwin (2004) *Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy toward Leverage, Risk Allocation, and Bankruptcy*

1.3.2 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 1.4: Mumbai Water—Example of Poor Planning in Infrastructure* provides an example of how weak infrastructure planning can mean projects fail to achieve value for money. **McKinsey** [#179] report on infrastructure investment—identifying \$57 trillion globally required between 2013 and 2030—notes that scaling up best practice could save an average of \$1 trillion a year in infrastructure costs during that period
- **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** [#238, pages 29-30] acknowledges this as a systematic problem and highlights the need to correct for ‘optimism bias’ in project analysis. **UK Treasury supplementary guidance on optimism bias** [#239] presented evidence on the extent of optimism bias dating from the early 2000s—although more recent evidence from the UK notes that public procurement practices have since improved—see for example [#242, #243] and [#243]. A global series of studies of large transport projects by **Flyvbjerg** [#101, #102, #103] found that costs are systematically under-estimated, and benefits often over-estimated:
 - A study of 258 transport projects found that actual costs were on average 28 percent higher than planned costs—and 65 percent higher on average for projects outside Europe and North America
 - A study of 25 rail projects found traffic was heavily over-estimated, 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.
- **Politics or personal gain interfering with the project selection process**; increasing costs, or 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 [#225].

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** [#279, Chapter 6]. **Flyvbjerg's studies** also emphasize, with examples, that costs and benefits can be deliberately misrepresented, to push through projects for political or organizational reasons [#101].

Box 1.4: 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.

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.

Private investors and lenders undertake their own project analysis based on their experience and 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 1.4 *How PPPs Are Financed*. A 2002 **Standard and Poor's study** [#24] 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.

The PPP tender process can therefore act as a filter for non-viable projects. As described by **Engel, Fischer, and Galetovic** [#74], 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** [#124, pages 25-27] notes that several of the National Highways

Authority of India (NHAI)'s toll road projects have not attracted bidders. In some cases demand forecasts were too high, in others bidders found NHAI's cost estimates to be low, and the project not viable on more conservative cost assumptions. Conversely, **Engel, Fischer and Galetovic** [#74] 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 1.5: *Hot lanes in Virginia—An Example of Private Sector Innovation* provides an example of an innovative project developed from an unsolicited proposal. While unsolicited proposals can be a useful source of ideas, in order to improve project selection they need to be subject to the same analysis as other major government investments. Section 3.6: *Dealing with Unsolicited Proposals* describes how some governments have introduced policies to encourage unsolicited proposals, while subjecting them to rigorous analysis and competition.

Box 1.5: Hot lanes in Virginia—An Example of Private Sector Innovation

A portion of the I-495 and I-95 highways—the ‘beltway’ around the Washington, DC metropolitan 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 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 three or more passengers and buses are allowed to use the HOT lanes free of charge. The Fluor proposal reduced the number of business and homes displaced from 350 to eight, 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 was US\$1.9 billion, compared to the estimated US\$3 billion under initial plans developed by the government. The State of Virginia contributed US\$400 million of this cost. The HOT lanes project reached financial close in 2007 and opened in 2012. Building on this experience, VDOT went on to make further use of the HOT lane concept, with a second contract awarded in 2011.

Source: Virginia HOT Lanes website (<http://www.virginiahotlanes.com>); Gary Groat (2004) ‘Loosening the Belt’, *Roads and Bridges*, 42(4); Virginia Department of Transportation (2008) *Virginia HOT Lanes: Fact Sheet*, Richmond, VA

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. PPPs may even distort investment priorities—low priority projects may go ahead simply because they are easier to do.

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 investors, these often cannot overcome weaknesses in planning and coordination between sectors or across regional boundaries. For example, the **HOT lanes project described in Box 1.5: Hot lanes in Virginia—An Example of Private Sector Innovation** 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** [#248, 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). Although changes in traditional public procurement also imply added costs, these are typically lower than under a PPP, since the absence of long-term contractual commitments allows easier recourse to the market and competitive pressure.

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 & Poor's** analysis described above shows lenders make more realistic assumptions than public agencies—nonetheless they still overestimate traffic forecasts. The more conservative traffic forecasts commissioned by banks still overestimate traffic by almost 20 percent—see [#25]. In Spain [#270], traffic estimates by concessionaires that were awarded several PPP toll road contracts have proven to be even more optimistic—revenue generated by the companies could barely cover the interest of the outstanding debt.

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 the pitfalls described under Section 1.3.1: *Insufficient Funds*).

Finally, PPPs can provide an opportunity for corruption, which may bias project selection. Where project selection is not based on analysis but rather influenced by corruption or pursuit of political gain, 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 [#279, #280, #281].

The policies and processes presented in Modules 2 and 3 of this *Guide*, and in the references listed, can help governments avoid the planning and project selection challenges that can undermine the effectiveness of PPP projects.

1.3.3 Weak 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 projects, and at managing service delivery once the assets are in place.

The quality of infrastructure service delivery by government entities is often constrained by limited capacity and weak management incentives. This increases the cost of infrastructure—for example, the **World Bank's Africa infrastructure diagnostic study** [#106, 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 in both construction of new infrastructure assets, and in infrastructure service delivery, as described in turn below. Still, achieving these benefits, and ensuring they translate into lower infrastructure costs for taxpayers and users, depends on the government structuring, procuring, and implementing the PPP effectively; and could be undermined where weak government or private sector capacity results in poorly-run tender processes or poorly drafted contracts, and frequent re-negotiation, as also described below.

How PPPs can help—improved construction of new assets

PPPs have been found to reduce construction time and cost overruns 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 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 [#248, 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. These studies support the claim regarding higher accuracy of estimates built into signed PPP contracts relative to traditional procurement. However, they are inconclusive on whether the PPPs projects are necessarily more economical than traditionally procured projects. 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 1.3: *Comparing PPP and Public Procurement in the United Kingdom* and Table 1.4: *Comparing PPP and Public Procurement in Australia*.

Table 1.3: 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	Contract award to final	22%	73%	24%	70%
National Audit Office, 2008	Contract award to final	35%	46%	31%	37%

Table 1.4: Comparing PPP and Public Procurement in Australia

Source	Comparison	Average Over Budget (% of original cost estimate)		Average Time Overrun (% of original time estimate)	
		PPP	Public	PPP	Public
Infrastructure Partnerships Australia, 2007	Original approval to final	12%	35%	13%	26%
	Contract to final	1%	15%	-3%	24%
Duffield review of PPP performance, 2008 [#62]	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. 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 1.3.2: *Poor Planning and Project Selection*.

How PPPs can help—improved service delivery and management

There have been relatively few studies on the impact of private sector participation on infrastructure operation. Nonetheless, available evidence suggests that private sector participation can improve service delivery and management, compared to government-run infrastructure services.

For example, a **comprehensive 2009 study by the World Bank** [#109] 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 private participation in urban water utilities, also in 2009, analyzed the performance of 65 large water PPPs and similar contracts (including management contracts) in developing countries worldwide. Marin also found that introducing a private operator consistently improved operational efficiency and service quality [#180].

PPP limitations and pitfalls—PPP implementation failures

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 structuring, procuring, and managing the PPP project over its lifetime—to achieve competitive tension, real risk transfer, and ensure anticipated performance improvements materialize in practice. 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-structured PPP project, under an appropriate tender process. Where this is not the case, bidders may simply not participate; or 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 [#248, 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 [#123] 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 efficiency savings from cost discipline may not have been passed on to the public sector.

Abrantes de Sousa's review of the PPP program in Portugal describes a similar tendency [#1, 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, in order to renegotiate it later without competition.

Moreover, effective management of a PPP transaction is only the start of the process. For a PPP to be sustainable over the long term requires a consistent level of commitment and capacity from the government and private parties over time. Where this is not the case, whether due to changing government priorities or external pressures, the PPP may ultimately fail—as described in Box 1.6: **When PPPs fail—The case of the 1993 water concession in Buenos Aires.**

Box 1.6: When PPPs fail—The case of the 1993 water concession in Buenos Aires

In the 1990's Argentina implemented a major concessions program in the water sector. Water and sanitation concession agreements with private operators were signed in 28 percent of the country's municipalities, covering 60 percent of the population. The more widely known contract was the concession for public water and sewerage services for Greater Buenos Aires, signed in 1993 with a consortium led by the French firm Suez. The concession soon showed positive results—labor productivity almost tripled, service coverage increased, reliability and responsiveness improved, and the price of service fell. However, teething problems also appeared—poor availability of information to users and the public, lack of transparency in regulatory decisions, and the ad hoc nature of government interventions. Consumers were not reassured that their welfare was being protected, and the sustainability of the concession was in doubt.

There is evidence that the private operator increased investment, and that it expanded access—Suez claims it extended access to water to 2 million people, and access to sanitation to one million people. In 1999 it started programs to provide access to slums—but soon the Argentinian economic crisis disrupted the plans.

After the 2001 economic crisis, the Argentinian government froze water tariffs, condemning most concessions to renegotiation, and several of them to early termination—as was the case of the Buenos Aires concession, which was terminated in 2006.

Source: Claude Crampes and Antonio Estache, *Regulating water concessions: Lessons from the Buenos Aires concession*, Public Policy for the Private Sector, Viewpoint Note n.91, September 1996; Omar Chisari, Antonio Estache and Carlos Romero, *Winners and losers from utility privatization in Argentina*, World Bank Policy Research Working Paper 1824, September 1997; Lorena Alcázar, Manuel A. Abdala and Mary M. Shirley, *The Buenos Aires water concession*, World Bank Policy Research Working Paper 2311, April 2000; Michael Cohen and Alexandre Brailowsky (eds.) *Citizenship and governability: The unexpected challenges of the water and sanitation concession in Buenos Aires*, The New School University, New York, 2004

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** [#225].

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 [#106, 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 preventive cost [#218, page 36].

The poor performance of under-maintained infrastructure can be costly for users. For example, an **engineers' association report** from the United States [#2, 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.

How PPPs can help—improved maintenance

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

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, reducing the need for maintenance (resulting in a lower 'whole of life' cost of the asset), as described in a **2009 United Kingdom National Audit Office report on PPP performance** [#253, page 8].

The private party then faces a strong incentive to carry out adequate maintenance. In the case where its revenue depends on user-fees, the operator has an incentive to make sure the asset meets performance requirements and attracts users. Under government-pays PPP, the operator's revenue typically depends both on the availability of the asset over time, and the operators ability to meet specific levels of service 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 the tendency to cut maintenance budgets down the line and thereby delay necessary maintenance and rehabilitation.

Some types of PPP or related contracts reward improved maintenance directly. For example, **Frauendorfer and Liemberger** describe performance-based contracts for non-revenue water reduction [#107, pages 34-37]. Infrastructure provides examples of performance-based maintenance contracts, which share many characteristics of PPP, and which have proved effective at improving maintenance in the road sector.

Box 1.7: 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 441km 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, T., Y. Mumssen & A. Schliessler (2005) 'Output-based Aid in Chad: Using Performance-based Contracts to Improve Roads', *OBA Approaches*, 6, Global Partnership for Output Based Aid, World Bank; Liautaud, G. (2001) *Maintaining Roads: Experience with output-based contracts in Argentina*, Washington, DC: World Bank.

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** [#74] note the importance of effective monitoring to achieving the potential benefit of improved maintenance
- If the contractor does not have much equity or 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 1.4.2: *Considerations for Government*, 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 Section 3.4: *Designing PPP Contracts*.

Key References: Infrastructure Challenges and How PPPs Can Help	
Reference	Description
Foster, V. & C. Briceño-Garmendia (eds.) (2010) <i>Africa's Infrastructure: A Time for Transformation</i>. Washington, DC: World Bank French Version: <i>Infrastructures africaines: Une transformation impérative</i>	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
Organization for Economic Co-Operation and Development (2007) <i>Infrastructure to 2030 Volume 2: Mapping Policy for Electricity, Water and Transport</i>, Paris, France: OECD French Version: <i>Les infrastructures à l'horizon 2030 (Volume 2): Électricité, eau et transports : quelles politiques?</i>	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

<p>Bent Flyvbjerg, Mette Holm & Søren Buhl (2002) <u>Underestimating Costs in Public Works Project: Error or Lie?</u> <i>Journal of the American Planning Association</i>, 68(3) 279-295</p>	<p>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</p>
<p>Bent Flyvbjerg, Mette Holm & Søren Buhl (2005) <u>How (In)accurate Are Demand Forecasts in Public Works Projects? The Case of Transportation</u>, <i>Journal of the American Planning Association</i>, 71(2) 131-146</p>	<p>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</p>
<p>Bent Flyvbjerg (2007) <u>Policy and Planning for Large Infrastructure Projects: Problems, Causes, and Cures</u>, <i>Environment and Planning B: Planning and Design</i>, 34, 578-597</p>	<p>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</p>
<p>Tanzi, V. & H. Davoodi (1998) <u>Roads to Nowhere: How Corruption in Public Investment Hurts Growth</u> (Economic Issues 12) Washington, DC: International Monetary Fund</p>	<p>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</p>
<p>World Bank (2008) <u>Deterring Corruption and Improving Governance in the Water Supply & Sanitation Sector: A Sourcebook</u></p>	<p>Chapter 6 describes the problems of corruption in planning and implementing major capital projects</p>
<p>Advisory Council for the American Society of Civil Engineers (2009) <u>2009 Report Card for America's Infrastructure</u>, Washington, D.C.</p>	<p>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</p>
<p>PricewaterhouseCoopers (2005) <u>Delivering the PPP Promise: A Review of PPP Issues and Activity</u>, London</p>	<p>Section 2 succinctly describes the advantages and disadvantages of using PPPs</p>
<p>Eggers, W. D. & T. Startup (2006) <u>Closing the Infrastructure Gap: The Role of Public-Private Partnerships</u>, New York: Deloitte</p>	<p>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)</p>
<p>Eduardo Engel, Ronald Fischer & Alexander Galetovic (2008) <u>Public-Private Partnerships: When and How</u>, IDEAS, Centro de Economía Aplicada, Universidad de Chile, Documento de Trabajo 257</p>	<p>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</p>
<p>Ronald Fischer (2011) <u>The Promise and Peril of PPPs: Lessons from the Chilean Experience</u>, Working Paper 11/0483, London School of Economics</p>	<p>Uses the experience of Chile and other developing countries to examine the benefits and pitfalls of PPPs, also offering recommendations to address common problems</p>
<p>Tim Irwin (2007) <u>Government Guarantees Allocating and Valuing Risk in Privately Financed Infrastructure Projects</u>, World Bank</p>	<p>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</p>
<p>Abrantes de Sousa, M. (2011) <u>Managing PPPs for Budget Sustainability: The Case of PPPs in Portugal, from Problems to Solutions</u>, ppplusofonia blogspot, October 30, 2011</p>	<p>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</p>
<p>House of Lords, Select Committee on Economic Affairs (2010) <u>Private Finance Projects and Off-Balance Sheet Debt</u> (HL Paper 63-I) London</p>	<p>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</p>
<p>House of Lords, Select Committee on Economic Affairs (2010) <u>Government Response to Private Finance Projects and Off-Balance Sheet Debt</u> (HL Paper 114) London</p>	<p>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</p>

Gupta, P., P. Gupta & T. Netzer (2009) <u>Building India: Accelerating Infrastructure Projects</u>, Mumbai, India: McKinsey and Company	Describes bottlenecks in infrastructure provision in India, and possible solutions, including highlighting some of the benefits of PPPs
National Audit Office (2003) <u>PFI: Construction Performance</u>, Report by the Comptroller and Auditor General HC 371, Session 2002-2003, 5 February, London	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
National Audit Office (NAO) (2009) <u>Performance of PFI Construction</u>, London	Updates previous report, adding experience to 2008
Infrastructure Partnerships Australia (2007) <u>Performance of PPPs and Traditional Procurement in Australia</u>, Sydney, Australia	Compares 21 PPP projects with 33 traditionally-procured infrastructure projects, finding that on average, PPPs have lower cost overruns and delays
Colin Duffield (2008) <u>Report on the Performance of PPP Projects in Australia when compared with a representative sample of traditionally procured infrastructure projects</u>, Melbourne, Australia: University of Melbourne	Compares 25 PPP projects with 42 traditionally-procured projects' cost and time performance over a series of project milestones
Gassner, K., A. Popov & N. Pushak (2009) <u>Does Private Sector Participation Improve Performance in Electricity and Water Distribution?</u>, Trends and Policy Options, No 6, 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
Marin, P. (2009) <u>Public-Private Partnerships for Urban Water Utilities: A Review of Experience in Developing Countries</u> (Trends and Policy Options No. 8) World Bank	Reviews the experience of 65 PPPs in the water sector in developing countries, finding consistent improvements in efficiency and service quality
Jose Luis Guasch (2004) <u>Granting and Renegotiating Infrastructure Concessions: Doing it Right</u>, World Bank	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
Frauendorfer, R. & R. Liemberger (2010) <u>The Issues and Challenges of Reducing Non-Revenue Water</u>, Manila, Philippines: 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

1.4 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 [1.4.1](#)).
- 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 [1.4.2](#)).
- Describes different roles for public finance in PPPs—that is, why and how governments may be directly involved in the financing of PPPs (Section [1.4.3](#)).

The chapter on PPP Financing in **Farquharson et al’s book on PPPs in emerging markets** [#95, 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 [#295], and **Private Sector Investment in Infrastructure: Project Finance, PPP Projects, and Risk** by Jeffrey Delmon [#58] 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.

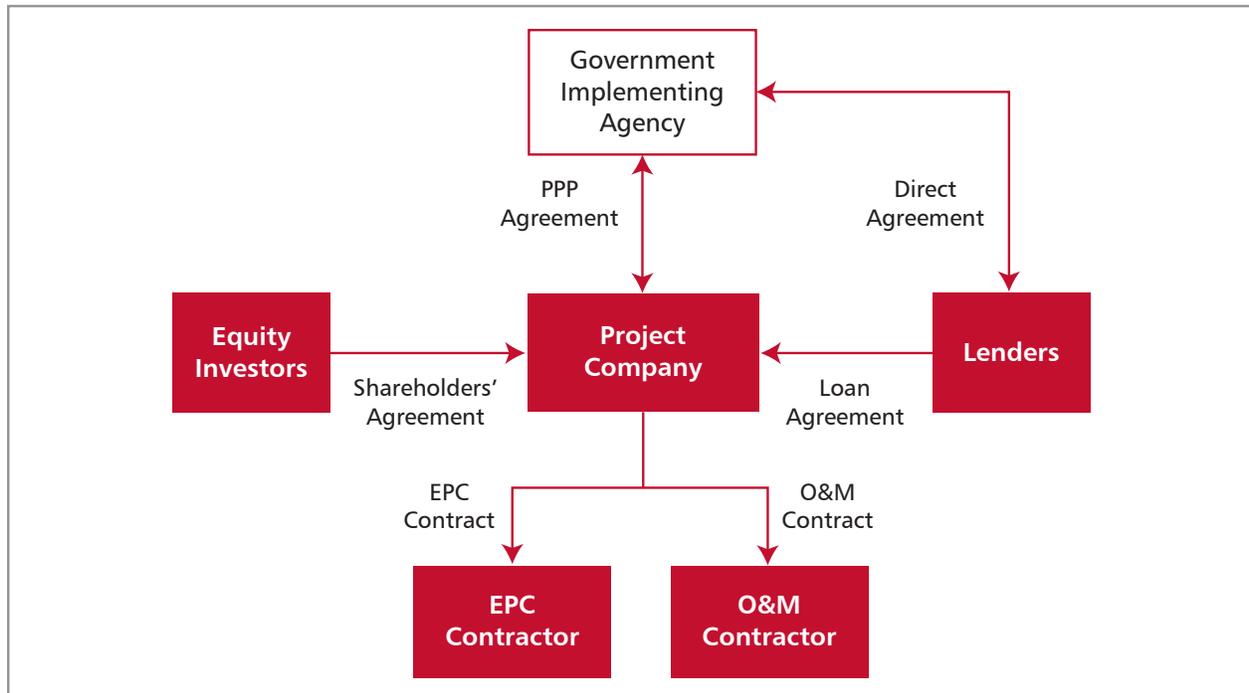
1.4.1 Finance Structures for PPP

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 1.4: *Typical PPP Project Structure* shows a typical finance and contract structure for a PPP project. The Government’s primary contractual relationship is with the project company. This may be complemented by a direct agreement between contracting authority and lenders; although often this relationship is limited to the provisions in favor of the lenders included in the PPP agreement, such as step-in rights or senior debt repayment guarantees.

The initial equity investors, who develop the PPP proposal, are typically called project shareholders. 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 1.4: *Typical PPP Project Structure*, 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 [#295, section 1.4].

Figure 1.4: Typical PPP Project Structure

As described in **Farquharson et al's chapter on PPP financing** [#271, 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 shareholders and their advisors in developing the finance structure is typically to minimize the cost of finance for the project. Because equity is more expensive than debt, project shareholders 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** [#295] project finance structures typically involve a large proportion of debt. In many cases, it ranges from 70 to 95 percent of total finance. 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:

- Benjamin C. Esty (2004) *Modern Project Finance: A Casebook*, Hoboken, USA: John Wiley and Sons
- Scott L. Hoffman (2008) *The Law and Business of International Project Finance: A Resource for Governments, Sponsors, Lawyers, and Project Participants* (2nd ed.) New York: Cambridge University Press
- E. R. Yescombe (2013) *Public-Private Partnerships: Principles of Policy and Finance*, 2nd edition, Oxford: Elsevier Science
- John D. Finnerty (2007) *Project Financing: Asset-Based Financial Engineering*, Hoboken, USA: John Wiley and Sons

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 smaller PPP projects adapt the non-recourse project finance structure, to achieve greater contractual flexibility, or lower the financing cost.

One option is for project shareholders to back up the project company by providing a corporate guarantee to the lender, for repayment for all or part of the project debt. Box 1.8: [*Examples of Project Finance Structure with Corporate Guarantees*](#) provides examples.

Box 1.8: 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 shareholder 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 shareholders provided a full loan guarantee on the project.

Sources: Esguerra, J. (2003) *The Corporate Muddle of Manila's Water Concessions*, New York, USA: WaterAid and Tearfund, page 19; International Finance Corporation, *Project Finance in Developing Countries* (Lessons of Experience Number 7), Washington, DC, Box 5.7, page 68

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: 1.4.3: *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.

1.4.2 Considerations for Government

When a PPP involves private finance, the investor 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, governments need to ensure that the project design is 'bankable'—that is, the project company is able to raise debt. Although the ability to raise debt is a necessary feature, too much debt can undermine risk-transfer, so governments 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, or through government-owned financial institutions such as development banks and pension funds. Section 1.4.3: *The Role of Public Finance in PPPs* describes the role of this kind of public finance in PPPs.

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 shareholders, but the required amount of debt. **Delmon's chapter on bankability** [#58, Chapter 4] and **Farquharson et al's chapter on PPP financing** [#95, 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 1.4.1: *Finance Structures for PPP*, this means 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 risks 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. Section 3.2: *Appraising PPP Projects* provides guidance on assessing financial viability of a potential PPP project. Section 3.3: *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.

Limiting the amount of debt allowed

Projects shareholders often have an incentive to finance a PPP with a high ratio of debt to equity—that is, to achieve high leverage. As **Yescombe** [#295] 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** [#72], governments often provide more protection to debt investors than to equity investors, providing a further incentive for high leverage. For example, governments may provide guarantees on demand designed to ensure revenue can cover debt service, or agree to payments in case of early termination that are set equal to the level of debt, such that lenders are repaid even in case of default by the project sponsor on its obligations under the contract.

However, highly-leveraged projects can also be more vulnerable to default and bankruptcy, as also described in **Ehrhardt and Irwin** [#72, pages 35-38]. Box 1.9: *Example of an Over-Leveraged PPP—Victoria Trams and Trains* below provides an example of a highly leveraged PPP that resulted in default.

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** [#72, 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** [#125, page 2]. The authors also note the importance of structuring any guarantees or termination payment clauses to avoid creating incentives for high levels of debt and leverage.

Box 1.9: 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 shareholders 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: David Ehrhardt & Tim Irwin (2004) *Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy towards Leverage, Risk Allocation, and Bankruptcy*, Working Paper 3274, World Bank, Washington, D.C.

Risks in going from award to financial close

A PPP contract is sometimes 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 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 et al** [#95, page 125] the government may 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 et al** 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 to avoid the risk altogether, as described by **Delmon** [#58, 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 may deter bidders and undermine 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 been explored by some governments for infrastructure projects—for example, in Egypt [#116].

Refinancing of project debt

‘Refinancing’ means taking on new debt to pay off existing loans. The project company and its shareholders 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 was not available at the time when the project was awarded, or because lenders viewed 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** [#295, Chapter 10]. 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 Section 3.3: *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 [#134].

Refinancing can also provide an opportunity for the project company and its shareholders, 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 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** [#295] 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 shareholders and customers**, by including in the PPP contract or PPP regulation a clause which states that 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** [#295]. 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 [#235]; this was subsequently revised in each version of contract standards [#242]. 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.

Step-in rights

Step-in rights refer to a power under the contract or in the country's legislation 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 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. Section 3.4: *Designing PPP Contracts* provides more detail on how step-in rights can be built into a PPP contract.

1.4.3 The Role of Public Finance in PPPs

The exclusive use of 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. 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, 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 underdeveloped, or disrupted, the availability of long-term finance may be limited, and so 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 1.10: *Pursuing PPP During the Global Financial Crisis* describes how some governments have supported PPPs during the Global Financial Crisis of the late 2000s.

Box 1.10: Pursuing 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** [\[#40\]](#) 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** [\[#106\]](#) describes the United Kingdom's experience with PFI during the credit crisis. **Foster's paper on the experience in Victoria, Australia** [\[#105\]](#) 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** [\[#79\]](#) 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.

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. These can be critical for project viability, where revenue projections show that the project is not likely to be financially viable without government funding. Capital contributions can also reduce the project's costs to the government, by making 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 shareholders for eligible projects. The credit assistance is offered on flexible terms, and typically takes a subordinated position, which in turn makes it easier to attract more private capital [#267, 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 Box 2.8: Viability Gap Fund in India. The Indian government's guidelines on financial support for PPP in Infrastructure [#135] 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** [#254, 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.

Government provision of SPV equity

Under the UK Government's revised PPP policy introduced in 2012—termed 'Private Finance 2', or PF2—the Treasury may provide a minority share of the equity in PF2 projects [#241]. The rationale was to give government better access to project information, including in relation to the financial performance of the project company; allow government to be more involved in strategic decision making; and improve value for money by sharing in the on-going investment returns. A similar structure has been used by a few other governments, such as the Regional Government of Flanders, in Belgium.

However, public equity in a PPP also brings risks for private sector counterparts, and unless carefully managed could raise concerns of conflict of interest. Under the **UK's PF2 policy**, for example, any equity shareholdings are managed by a unit located in the Treasury separate from the procuring authority.

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** [#95, 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:

- 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 [#99, pages 6-7]

- 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. [#263]

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 increase its fiscal exposure, while reducing value for money by reducing real risk transfer to the private sector, as described in Section 1.4.2 on the danger of over-leverage, and Section 1.3.1 on the lack of fiscal clarity from PPPs. For more information on government guarantees and public financial management for PPPs, see Section 2.4: *Public Financial Management Frameworks for PPPs*.

Forfeiting structures

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. Under this model, once construction is completed satisfactorily, the government issues an irrevocable commitment to pay the project company a portion of the contract costs—typically sufficient to cover debt service. This can lower the project's financing costs. 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 less interest in ensuring project performance during operations. The forfeiting model has been widely used in Germany for small projects—typically municipal projects—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 [#57].

A variant of the forfeiting model is the **cession de créance** (assignment of receivables) used in France. Similarly, once the infrastructure is built and operational the government may commit to making a series of payments unconditional on availability that will cover some or all of the debt service of the PPP project company.

The Government of Peru has also introduced a financing structure for PPPs that is a variant on the forfeiting model, in which these irrevocable payment commitments are issued *during* construction on completion of defined milestones. The 'CRPAO' structure is described in Box 1.11: *CRPAOs in Peru*. These forfeiting-type models allow for the private partner to gradually finance its investment, by securitizing the guaranteed future flow of payments related to each phase of construction. However, it also means the Government is committed to paying a proportion of the contracted amount irrespective of whether the asset is completed. The relevance of this approach may depend on the nature of the asset—in particular, whether it is readily divisible.

Box 1.11: 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 Annual 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 960km 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: Fox, Kabance & Izquierdo (2006) *IIRSA Norte Finance Limited*, New York: Fitch Ratings; United States Agency for International Development, USAID (2009) *Enabling Sub-Sovereign Bond Issuances: Primer and diagnostic checklist* (FS Series 1), Washington, D.C.

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. Where these entities operate more or less as commercial finance institutions they may be better-placed to assess the viability of a proposed PPP project than the government itself—although some such institutions can also be exposed to political pressure that may undermine the quality of due diligence or project structuring.

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—appraising risk and providing finance in a similar way to a private commercial bank [[#29](#), Annual Report].

Alternatively, governments may establish finance institutions specifically to serve PPPs, and sometimes other infrastructure investments. For example, the India Infrastructure Finance Company Limited (IIFCL) was established in 2006 to provide long-term debt to viable infrastructure projects undertaken by public or private companies. In Indonesia, the Indonesia Infrastructure Guarantee Fund (IIGF) was established in 2009 as a state-owned company to provide guarantees for infrastructure projects under PPP schemes. However, as described by **Klingebiel and Ruster in their paper on infrastructure facilities** [[#172](#)], unless policy and institutional frameworks are developed to provide a pipeline of bankable projects then government-backed financing facilities are unlikely to provide the hoped-for results.

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 have been implemented with the support of FONADIN, an infrastructure investment fund under the national development bank BANOBRAS. The operating rules for FONADIN *de facto* established the rules and procedures by which PPP projects will be implemented, as described in Box 1.12: *Mexico’s FONADIN*.

Box 1.12: Mexico’s FONADIN

Prior to 2012, Mexico had no PPP Law. However, most government agencies that implement projects through PPP schemes did so with the support of the *Fondo Nacional de Infraestructura* (FONADIN). Exceptions are typically projects that are “self-financing”—that is, projects that generate revenues that are sufficient to cover the costs; the two government entities that generally follow this path are CFE (the national electric company) and PEMEX (the national oil company).

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* (Operation Rules)

Key References: How PPPs Are Financed

Reference	Description
Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i> , World Bank/PPIAF	Chapter 5 provides an overview of private finance for PPPs, focusing in particular on challenges faced in developing countries
E. R. Yescombe (2013) <i>Public-Private Partnerships: Principles of Policy and Finance</i> , 2 nd edition, Elsevier Science, Oxford	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
Delmon, Jeffrey (2009) <i>Private Sector Investment in Infrastructure: Project Finance, PPP Projects and Risks</i> (2nd ed.), London: Kluwer Law International	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)
Daube, Vollrath & Alfen (2007) <i>A Comparison of Project Finance and the Forfeiting Model as Financing Forms for PPPs in Germany</i> , <i>International Journal of Project Management</i> , 28(4) 376-387	Describes the forfeiting model used in Germany as an alternative to project finance, to lower financing costs for PPP projects

<p>David Ehrhardt & Tim Irwin (2004) <u><i>Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy toward Leverage, Risk Allocation, and Bankruptcy</i></u>, World Bank Policy Research Working Paper 3274</p>	<p>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.</p>
<p>Clive Harris & Sri Kumar Tadimalla (2008) <u><i>Financing the Boom in Public-Private Partnerships in Indian Infrastructure: Trends and Policy Implications</i></u>, <i>Gridlines</i> 45, World Bank/PPIAF</p>	<p>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</p>
<p>Federal Highway Administration (2010) <u><i>Project Finance Primer</i></u>, US Department of Transportation, Washington, D.C.</p>	<p>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.</p>
<p>Department of Economic Affairs (2008) <u><i>Scheme and Guidelines for Financial Support to Public Private Partnerships in Infrastructure</i></u>, New Delhi, India: PPP Cell, Ministry of Finance, Government of India</p>	<p>Describes India's Viability Gap Financing scheme for providing capital subsidies to private infrastructure projects</p>
<p>United Kingdom, House of Commons, Committee of Public Accounts (2010) <u><i>Financing PFI Projects in the Credit Crisis and the Treasury's Response</i></u>, House of Commons 553, Ninth Report of Session 2010–11, London</p>	<p>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</p>
<p>Edward Farquharson & Javier Encinas (2010) <u><i>The UK Infrastructure Finance Unit: Supporting PPP Financing During the Global Liquidity Crisis</i></u>, World Bank</p>	<p>Summarizes the United Kingdom's experience with PFI during the financial crisis, and describes the Treasury Infrastructure Finance Unit</p>
<p>Burger, Tyson, Karpowicz & Delgado Coelho (2009) <u><i>The Effects of the Financial Crisis on Public-Private Partnerships</i></u>, Working Paper WP/09/144, International Monetary Fund</p>	<p>Investigates the impact of the global financial crisis on PPPs, and the circumstances under which providing support to new and existing projects is justified</p>
<p>Richard Foster (2010) <u><i>Preserving the Integrity of the PPP Model in Victoria, Australia, during the Global Financial Crisis</i></u>, World Bank</p>	<p>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</p>
<p>EPEC, European PPP Expertise Centre (2009) <u><i>The Financial Crisis and the PPP Market: Potential Remedial Actions</i></u>, Luxembourg</p>	<p>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.</p>



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—that is, how they will be identified, assessed, selected, budgeted for, procured, monitored, and accounted for.

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: *Good Governance for PPPs* 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** [#262, pages 13-14] Section 2.1: Principles of Good Governance in PPPs.

Defining the ‘PPP framework’

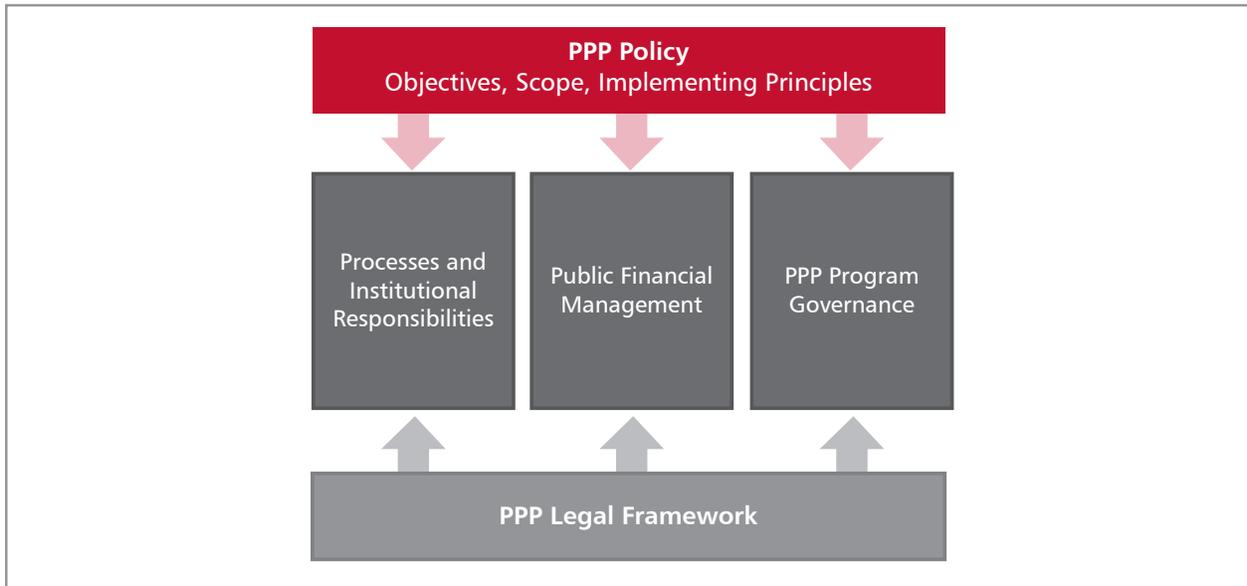
There is no single ‘model’ PPP framework. A government’s PPP framework typically evolves over time, often in response to specific challenges facing the PPP program. In the early stages of a program the emphasis may be on enabling PPPs, and creating and promoting PPP opportunities. On the other hand, 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. [#38]

Often this initially involves introducing PPP-specific processes, rules, and institutions to ensure PPP projects are subject to similar discipline as public investment projects. Gradually, as experience with PPP grows, these PPP frameworks may re-integrate with normal public investment and infrastructure planning, procurement, and fiscal management processes, with PPPs as one particular option among several other options for implementing public investment projects.

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: *PPP Framework Overview* illustrates the possible components of a ‘comprehensive’ PPP framework into component parts, while Box 2.2: *The PPP Framework of Chile* and Box 2.3: *The PPP*

Framework of South Africa below provide brief overviews 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: *PPP Framework Overview*, the components of a comprehensive PPP framework can include the following:

- **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
- **Legal 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
- **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
- **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
- **Broader governance arrangements**—how other entities such as auditing entities, the legislature, and the public participate in the PPP program, and hold those responsible for implementing PPPs

accountable for their decisions and actions. 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.

For more on the typical components of a PPP framework, see **Farquharson et al** [#95, pages 15-16], and **Yong** [#296, page 30], which both provide brief overviews. **The OECD's recommendation on public governance of public-private partnerships** (2012) [#196] also sets out guiding principles for its member governments on managing PPPs, covering three areas: establishing a clear, predictable, and legitimate institutional framework supported by competent and well-resourced authorities; grounding the selection of PPPs in value for money; and using the budget process transparently to minimize fiscal risks and ensure the integrity of the procurement process. These built on earlier **OECD principles for private sector participation in infrastructure** (2007) [#193].

Detailed assessments of PPP frameworks in a range of countries are available in the following:

- The **Economist Intelligence Unit (EIU)'s Infrascope index** publications, which evaluate the PPP environment in a set of countries against measures designed to assess the countries' readiness to carry out sustainable PPPs. These measures include 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. The series includes **EIU Infrascope index for Latin America and the Caribbean** [#67], commissioned by IADB's Multilateral Investment Fund (MIF); **EIU Infrascope index for the Asia-Pacific region**, commissioned by the Asian Development Bank (ADB) [#151]; and **EIU Infrascope index for Eastern Europe and the Commonwealth of Independent States**, commissioned by the European Bank for Reconstruction and Development (EBRD)
- **Irwin and Mokdad's paper** on managing contingent liabilities in PPPs [#162], which describes the PPP approval, analysis and management approach in Australia, Chile, and South Africa, with a focus on fiscal management.

Box 2.2: The PPP Framework of Chile

Chile is a country with substantial PPP experience, and a well-defined PPP framework. As of 2013, Chile had awarded 69 projects in roads, airports, jails, reservoirs, urban transport, hospitals, and other sectors, with a total investment value of US\$14 billion.

The use of PPP in Chile was enabled in 1991 by Decree 164, which set out much of the framework still in use today. This law was updated in 2010 by the Concessions Law, to address some of the challenges Chile had faced in its PPP program to date.

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 appraise the project. If the project is a good PPP candidate, the MOP Concessions Unit prepares the detailed tender documents, carries out a tender process, and selects and announces by decree the winning bidder. The Unit 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.

The National Planning Authority must review and approve the technical and economic analysis of the project. 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 the project as a PPP.

The Ministry of Finance must approve PPP tender documents before they can be published, any changes made during the tender process, and any significant changes made through the lifetime of the contract. The Minister of Finance must also sign the decree awarding the PPP contract to the winning bidder. To manage these oversight responsibilities, the Ministry has established a Contingent Liabilities Unit, which reviews all projects in detail prior to approval, and calculates the value of the government's liabilities initially and throughout the contract. 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.

The Treasury 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.

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.

Source: Ministerio de Obras Públicas (2010) *Ley y Reglamento de Concesiones de Obras Públicas*, Santiago, Chile; Ministerio de Obras Públicas (2010) *Historia de la Ley N.20410: Modifica la Ley de Concesiones de Obras Públicas y otras normas que indica*, Santiago, Chile

Box 2.3: The PPP Framework of South Africa

South Africa is another country with substantial PPP experience. From 2000 to April 2014, South Africa has implemented 24 national and provincial level PPP projects totaling over US\$8.35 billion of total investment.

The legislation governing national and provincial PPPs is the **Treasury Regulation 16**, issued under the Public Finance Management Act of 1999—it broadly sets out the PPP process, requirements and approvals, and institutional responsibilities of involved entities. Municipal PPPs are governed by the Municipal Finance Management Act and the Municipal Systems Act. There are also municipal PPP regulations that roughly mirror the requirements of Treasury Regulation 16.

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. A similar manual, the **Municipal Service Delivery and PPP Guidelines**, provides instructions for municipal PPPs.

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 manuals. The contracting authority is responsible for managing PPPs through the contract lifetime, which includes ensuring the project meets performance standards, resolving disputes, and reporting on the PPP in the institution's/municipality's annual reports.

PPP approvals are made by the Treasury at the national and provincial levels. Municipal PPPs will be subject to Treasury's "views and recommendations". 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/municipality's accounts. The Auditor General may also conduct forensic audits if any irregularity is suspected.

Sources: National Treasury (2004) *Public Private Partnership Manual: National Treasury PPP Practice Notes issued in terms of the Public Finance Management Act*, Johannesburg, South Africa; Tim Irwin & Tanya Mokdad (2010) *Managing Contingent Liabilities in Public-Private Partnerships: Practice in Australia, Chile, and South Africa*, World Bank; P. Burger (2006) *The Dedicated PPP Unit of the South African Treasury*, Paris, France: Organization for Economic Cooperation and Development

Instituting the PPP framework

A PPP framework can be instituted 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: *PPP Policy*. 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 2.2: *PPP Legal Framework*, civil law countries typically require 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 as a more binding form of commitment to a PPP framework. This can be a dedicated PPP law, a component of broader public financial management law, subordinate legislation such as executive orders, presidential decrees, 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 examples and draws from many examples of good-quality guidance material from national PPP programs.

In addition to 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.

Overview References: PPP Framework	
Reference	Description
United Nations Economic Commission for Europe (2008) <i>Guidebook on Promoting Good Governance in Public-Private Partnerships</i>, Geneva	This guide for policymakers 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
Tim Irwin & Tanya Mokdad (2010) <i>Managing Contingent Liabilities in Public-Private Partnerships: Practice in Australia, Chile, and South Africa</i>, World Bank	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

<p>Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i>, World Bank/PPIAF</p>	<p>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</p>
<p>Yong, H. K. (Ed.) (2010) <i>Public-Private Partnerships Policy and Practice: A Reference Guide</i>. London: Commonwealth Secretariat</p>	<p>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</p>
<p>Economist Intelligence Unit (2013) <i>Evaluating the Environment for Public-Private Partnerships in Latin America and the Caribbean: The 2012 Infrascope: Index guide</i> London, UK (Spanish Version: <i>Evaluando el entorno para las asociaciones público-privadas en América Latina y el Caribe Infrascope 2012: Guía del índice y metodología</i>)</p>	<p>This publication, <i>Infrascope</i>, 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 2013 edition, as well as previous editions, are freely available at the IADB website. See also the versions for Asia-Pacific and for Eastern Europe and CIS, based on similar methodologies.</p>

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 the Oxford English Dictionary definition of policy as a 'course or principles of action ... one formally advocated by a government', 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 its 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. The sections below, and the 'key references' at the end of this section, reference some example PPP policy documents. Other countries incorporate these elements of PPP policy within PPP laws and regulations, or guidance material. PPP policies benefit from being nested in a more comprehensive public investment or infrastructure policy framework, as described further below under Section 2.3: *PPP Processes and Institutional Responsibilities*.

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 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.

Table 2.1 provides examples of clear statements of PPP program objectives drawn from the relevant country's PPP policy statement or law.

Table 2.1: Example PPP Program Objectives

Country	Reference	PPP Objectives
Australia	National PPP Policy Framework (2008) [#13, 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'
Indonesia	Regulation of Government Cooperation with Business Entity in the Supply of Infrastructure (2005) [#148, Chapter II Article 3]	The purpose of 'cooperation of government and the private sector' (through PPPs) is set out as follows: <ul style="list-style-type: none"> ▪ To fulfill sustainable funding requirements in the supply of infrastructure through mobilization of private sector funds ▪ To improve the quantity, quality and efficiency of services through healthy competition ▪ To improve the quality of management and maintenance in the supply of infrastructure ▪ 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) [#37, 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 (<i>Ley de Asociaciones Publico Privadas</i> , 2012) [#185, 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. Section 1.1 *What is a PPP: Defining 'Public-Private Partnership'* describes this range, which can stretch from lease arrangements for existing assets and services 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 (2004) *Law 11079, Federal PPP Law, Brasilia* [#34] and Chile, *Ministerio de Obras Públicas (2010) Ley y Reglamento de Concesiones de Obras Públicas, Santiago* [#46] 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 plants, water and sewage treatment works, major IT infrastructure, education facilities, hospitals and polyclinics, expressways, and government office buildings. Some countries exclude sectors considered too sensitive—Uruguay and El Salvador excluded the water sector, Guatemala excluded education and health
- **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 projects 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 launched under the 'PPP Law'.

Table 2.2 provides more detail on how various countries have defined the scope of their PPP programs.

Table 2.2: Example Definitions of PPP Policy Scope

Country	Reference	PPP Policy Scope
Australia	National PPP Guidelines-PPP Policy Framework (2008) [#13, 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 (Law 11079, 2004) [#34, 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. Project Size —PPP will only be used for project over 20 million reais (US\$11.7 million)
Chile	Concessions Law (Law 20.410, 2010) [#46]	Contract types —the law specifies a maximum duration for concession contracts of 50 years 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, 2012) [#52, 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) Project size —Total investment in the project must be above 6000 smmlv (i.e. Minimum Legal Monthly Wage)
Mauritius	Public Private Partnership Policy Statement (2003) [#181, 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 (<i>Ley de Asociaciones Publico Privadas</i> , 2012) [#185]	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) [#210, 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
Singapore	Public-Private Partnership Handbook (2004) [#216, Section 1.4.2, page 8]	Sectors —limited to those in which there are successful PPP examples in other countries—including sports facilities, incineration plants, water and sewage treatment works, major IT infrastructure, education facilities, hospitals and polyclinics, expressways, and government office buildings Project size —PPP will be used only for projects over US\$50 million

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 2.4: *PPP Implementing Principles in Peru* lists the implementing principles established in Peru’s national PPP law.

Box 2.4: PPP Implementing Principles in Peru

Peru'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 or collusion behavior
- **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: Congreso de la República (2008) *Decreto Legislativo N° 1012*, Lima [#12]

For other examples of strong guiding principles, see:

- The **State Government of Karnataka Infrastructure Policy** (2007) [#144, page 135], which clearly sets out and explains its 'Touchstone Principles'
- **Australia's National PPP Policy Framework** (2008) [#13, 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) [#34, 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

- The **PPP Law** (Law 11688, 2004) **of the State of São Paulo**, Brazil [#37, 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 n.º 67** (2005) [#148, 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) [#52, 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
- **Jamaica's PPP Policy** (2012) sets out four guiding principles: achieving optimal risk transfer and value for money for the public; being fiscally responsible; and maintaining probity and transparency [#166].

Key References: PPP Policy Examples	
Reference	Description
Australia, Infrastructure Australia (2008) <u>National PPP Guidelines-PPP Policy Framework</u>, Canberra	Sets out the policy objectives, scope, the assessment of projects as PPPs, and the principles guiding the application of PPPs
Indonesia, Presiden (2005) <u>Peraturan Presiden Republik Indonesia Nomor 67 Tahun 2005 Infrastruktur</u>, Jakarta; (2011) <u>Peraturan Presiden Republik Indonesia Nomor 56 Tahun 2011</u>, Jakarta	Sets out the purpose, scope, and principles of the PPP program in Indonesia, as well as defining the PPP process and responsibilities
Brasil, São Paulo Assembléia Legislativa (2004) <u>Lei 11688/04 Lei N° 11.688</u>, São Paulo	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, and establishes the rule for PPP contracts
General Congress of the United States of Mexico (2012) <u>Ley de Asociaciones Publico Privadas (PPP Law)</u>	Sets out the scope, principles, and processes for the PPP program in Mexico
Brasil, Congresso Nacional (2004) <u>Lei N° 11079</u>, Brasília	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
Chile, Ministerio de Obras Públicas (2010) <u>Ley y Reglamento de Concesiones de Obras Públicas</u>, Santiago	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
Colombia, El Congreso (2012) <u>Ley No. 1508</u>, Bogotá	Sets out the scope, principles, and processes for the PPP program in Colombia, as well as institutional responsibilities for developing projects
Mauritius, Ministry of Economic Development, Financial Services and Corporate Affairs (2003) <u>Public Private Partnership Policy Statement</u>, Port Louis	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
Puerto Rico, Legislature Assembly (2009) <u>No. 29 (S. B. 469)</u>, San Juan	Sets out the purpose, scope, principles, and processes of the PPP program in Puerto Rico

Singapore, Ministry of Finance (2004) <u>Public Private Partnership Handbook</u> (Version 1)	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
Perú, Congreso de la República (2008) <u>Decreto Legislativo N° 1012</u>, Lima	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
India, Ministry of Finance, <u>Promoting Infrastructure Development Through PPPs: A Compendium of State Initiatives</u>, New Delhi	Presents PPP policies, laws, and regulations from 12 states in India

2.2 PPP Legal Framework

The 'PPP legal framework' comprises all the laws and regulations that control whether, and how, PPPs can be implemented. Both governments and private companies looking to implement PPPs need to scrutinize the relevant laws and regulations, to identify any provisions, requirements, or constraints that may apply to PPPs. Governments embarking on PPPs may also need to adapt the existing legal framework to do so—at a minimum to ensure that PPP contracts can be entered into and clarify the legal rights and processes that apply; or in some cases to introduce PPP-specific processes and responsibilities such as those described in the following sections. Some governments do so by adapting existing laws; others introduce specific legislation.

The nature of the legal framework for PPP depends heavily on the type of legal system in place. There are two main types of legal systems in the world: common law, and civil law. In **civil law systems**, the operations of government are usually tightly prescribed in administrative law. This typically establishes legal rights and processes that apply to PPP contracts, as described further below. **Common law systems** are typically much less prescriptive, with fewer provisions implied into a contract by law. As a result, contracts in common law countries tend to be larger than in civil law countries—more importance is attached to specifying in the contract the terms governing the relationship between the parties to a contract, as the absences or ambiguities cannot so easily be remedied or resolved by operation of law.

This section briefly describes and provides examples of PPP legal frameworks: Section [2.2.1](#) describes the broad scope of legislation that may affect PPPs; and Section [2.2.2](#) focuses on PPP-specific legislation. The following resources provide overview guidance on assessing and developing the legal and regulatory framework for PPPs:

- **Jeff Delmon and Victoria Delmon's Legal Guide** [\[#60\]](#) reviews key legal issues in 17 countries
- The **World Bank's PPP Infrastructure Resource Center** presents the key features of common and civil law systems, and their impacts on PPP arrangements, and has useful **online tools** for assessing governments' legal environment for PPPs in the [\[#286, Legislative Frameworks\]](#)
- Annex 2 of the **EPEC Guide to Guidance** has an overview of legal and regulatory requirements for PPPs in countries with different legal traditions [\[#83\]](#)
- **Farquharson et al** [\[#95, pages 16-21\]](#) sets 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** [[#282](#), Module 4] section on 'legislative framework' describes the types of enabling law for PPPs, and lists and describes the other laws that typically impact a PPP project in highway infrastructure.

2.2.1 Scope of the PPP Legal Framework

The PPP legal and regulatory framework can include specific PPP legislation, as described below. However, the legal framework for PPP is broader in scope, and can comprise a range of types of law.

Firstly, in civil law countries, as described above, PPP contracts are couched in **general administrative law**, which governs the functions and decision-making processes of government agencies. This body of law can create legal rights for both contracting authority and private party, in addition (or indeed, overriding) those specified in the contract. For example, it may establish the right of the contracting authority to modify or cancel a contract (often linked to a legal requirement for continuity of service provision). Some protections of the operator are also implied by law—such as the right to 'financial equilibrium' in case of certain types of unexpected change in circumstances (as described further under Section 3.4: *Designing PPP Contracts*). Administrative law may also define processes and institutional roles relevant to PPPs; such as those for procurement, or resolution of contractual disputes—including the ultimate jurisdiction of administrative courts, unless otherwise specified.

In both civil and common law jurisdictions there may also be **specific laws** that apply to aspects of the PPP process. These can include:

- **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**—PPP 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**, which 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

These laws taken together may comprise the legal framework for implementing PPP—that is, there may be no need for PPP-specific legislation. For example, Box 2.5: PPP Legal Framework in Germany.

Box 2.5: PPP Legal Framework in Germany

The development and implementation of PPPs in Germany is regulated primarily by the Budget law, particularly sections 7 and 55 of the *Federal Budget Code*, which set out requirements for project preparation and appraisal, and procurement, respectively.

The Budget law establishes **guiding principles and appraisal requirements** for all public procurements, including PPP projects. Under section 7 subsection (1) of the Federal Budget Code, the principles of efficiency and economy must be observed when preparing and executing the budget—which includes the preparation of PPP projects. Economic feasibility analysis is the main instrument for implementing the efficiency principle—it must be conducted for all measures having a financial impact, which includes PPPs (section 7 subsection (2) of the Federal Budget Code). This analysis must be conducted during various stages of the project development process, before any decision with financial impact; and includes analysis of possible procurement approaches.

General provisions for **procurement processes** are set out in Section 55 of the *Federal Budget Code*. Federal procurement procedures are related to a certain threshold (€5 million for construction contracts; €200,000 for supplies and services contracts; €400,000 for supplies and services contracts involving sectoral clients; €130,000 for contracts involving higher and supreme federal authorities). For procedures exceeding stipulated thresholds, the rules established under EU Directives must be applied, as well as the *Act Against Restraints of Competition* [#110, part 4] and the *Ordinance on the Award of Public Contracts* [#113]. For procurement procedures below the above-cited threshold, the following regulations apply: Section 55 of the *Budgetary Principles Act*, Section 55 of the *Federal Budget Code*, and the respective Länder budget codes in conjunction with the corresponding administrative provisions, plus Section 1 both of the VOB/A (Vergabe- und Vertragsordnung für Bauleistungen) and VOL/A (allgemeine Bestimmungen für die Vergabe von Leistungen).

2.2.2 PPP Laws

Some countries enact special PPP laws. These may be used as a means to adapt the existing legal framework, if this is not clear or comprehensive, or constrains the Government's ability to structure and manage PPPs well. The same can be achieved by adapting existing laws to accommodate PPPs. A PPP-specific law can help raise the profile and demonstrate political commitment to the PPP program—although care is needed

to avoid conflict with any other existing relevant laws. PPP laws may establish guiding principles for a PPP program, processes and institutional responsibilities (such as for procurement, and dealing with disputes) and policies such as public financial management rules PPPs. A well-designed PPP law typically sets out principles, which may be supported by more detailed regulations—with a view to avoiding rigidity and enabling the PPP program to adapt over time.

PPP laws are most common in civil law countries—for example, all Latin American countries implementing PPPs do so under a specific PPP or Concession law (or both). Some common law countries also adopt PPP laws, as a more binding commitment by government than a PPP policy.

Table 2.3 below provides examples of PPP laws and regulations in a range of countries. **Yong** [#296, page 33] summarizes the suggested content of a dedicated PPP law, while the **United Nations Commission on International Trade Law** has published general recommendations and model legislative provisions for enabling privately financed infrastructure projects [#259, #260]. The **World Bank PPP in Infrastructure Resource Center for Contracts, Law and Regulation** [#286, ‘Legislation’] provides more information, including summaries of different legislation types (such as general PPP laws, concession laws), example provisions, and PPP legislation from over 30 countries.

Table 2.3: Example PPP Laws

Jurisdiction	PPP-Specific Laws and Regulations
Brazil	<p>The federal-level legal framework for PPPs in Brazil is different for Concessions (‘self-financing’ projects, which require no government subsidy support), and PPPs:</p> <ul style="list-style-type: none"> ▪ 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 ▪ 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 <p>Each State making use of PPPs also has its own legal framework.</p>
Chile	<p>Law 20410 (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</p>
Colombia	<p>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:</p> <ul style="list-style-type: none"> ▪ 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 ▪ Law 1150 (2007): modifies some parts of Law 80. Specifically, it incorporates certain elements that make the tendering processes more efficient and transparent ▪ Presidential Decree 4165 (2011), in article 4, establishes the National Infrastructure Agency (<i>ANI Agencia Nacional de Infraestructura</i>), 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

Jurisdiction	PPP-Specific Laws and Regulations
France	Law 2004-559 on Partnership Contracts sets out the legal and institutional framework for PPPs in France. Law 2008-735 incorporates adjustments to Law 2004-559, as well as the codes for subnational governments, urbanisms, general tax, monetary policy and finance, to improve the PPP framework in France. 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)
Mauritius	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
Mexico	PPP Law (Ley de Asociaciones Publico Privadas, 2012) 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	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
Puerto Rico	PPP Act No. 29 (2009) sets out the framework for PPPs in Puerto Rico and provides the enabling legislation 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	The BOT Law (Republic Act 7718, 1994) 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 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
South Africa	The Public Finance Management Act (No. 1, 1999) is the enabling legislation for PPPs. 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.
Tanzania	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.

2.3 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. However, the government remains responsible for ensuring the public service is provided to the expected quality, in a way that achieves good value for money. The government must choose the right project, select a competent partner, and set and enforce the parameters within which that partner operates.

To this end, many governments define 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 2.3.1: *PPP Process* describes a typical PPP process, and gives examples from different countries' PPP programs
- Defining **institutional responsibilities** for PPPs—that is, which entity will play what role at each step. Institutional arrangements and the allocation of functions differ from place to place—depending on

the particular needs of the PPP program and the existing institutional responsibilities and capacities. Sections [2.3.2](#) and [2.3.3](#) describe and provide examples of institutional responsibilities for:

- **Implementing PPPs**—that is, doing the day-to-day work to drive forward the PPP process through the steps defined below: from identifying potential projects, appraising, structuring, drafting the contract, bidding it out, and managing the contract after it is signed
- **Reviewing and approving PPPs**—that is, overseeing the PPP process, typically through review and approvals at key stages, to ensure that the project represents a good investment decision for the government
- **Establishing PPP units.** Some governments establish teams aggregating staff with specific knowledge on PPPs. The functions of these PPP Units vary widely, as do their location within Government and structure—reflecting the variation in priorities and constraints facing PPP programs both between governments, and over time as the PPP program evolves. Section [2.3.4](#) briefly describes the various roles played by these units, with examples from different countries.

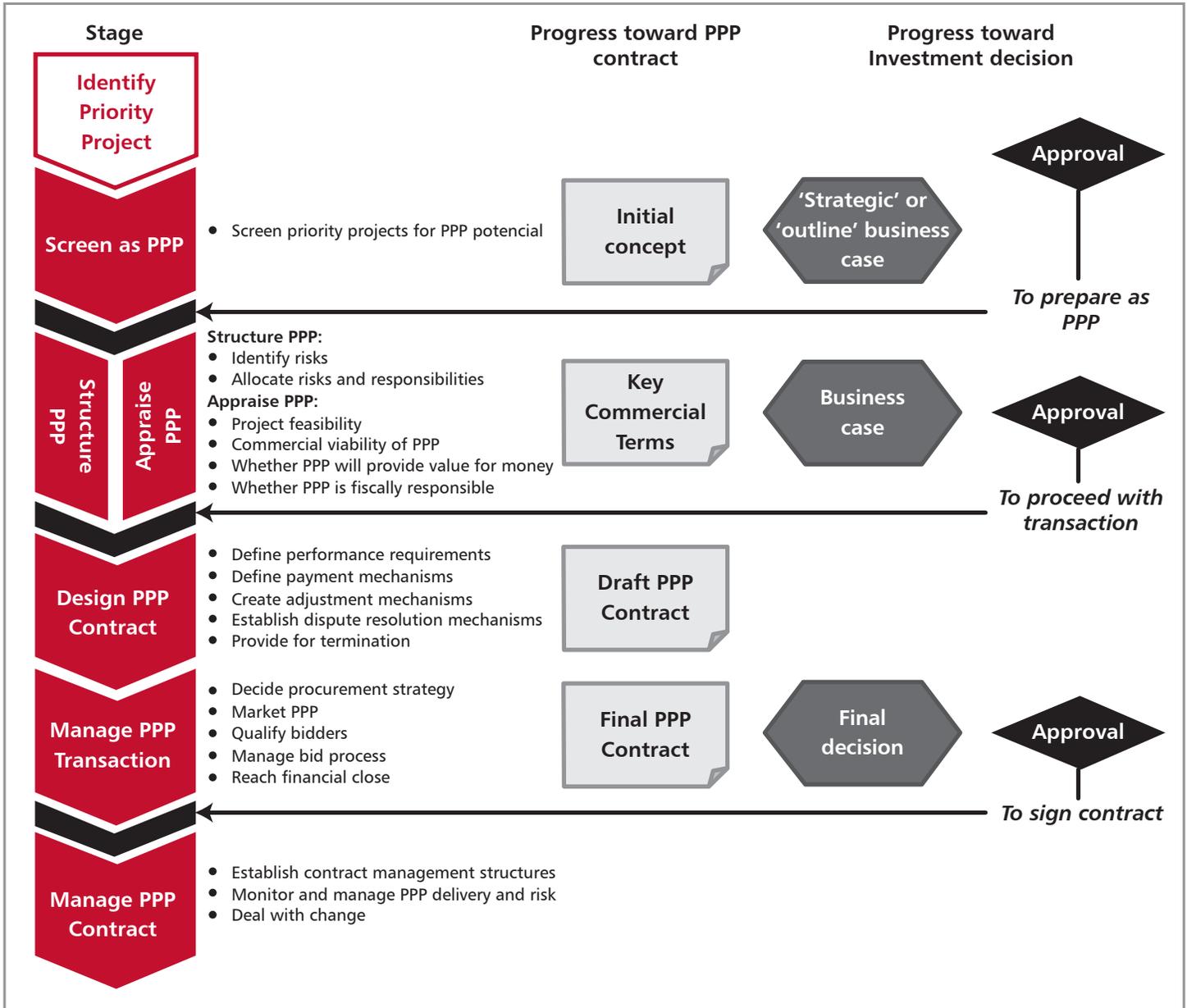
This section focuses on the process and responsibilities within the executive branch of government for implementing PPPs. Section 2.5: *Broader PPP Program Governance* provides further guidance on how other entities can input into the PPP process, and hold those responsible for developing PPPs accountable for their decisions and actions.

2.3.1 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: *Typical PPP Process* 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. 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 [2.3.3](#). 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.

Figure 2.2: Typical PPP Process



As shown in Figure, the process of developing and implementing a PPP is typically preceded by **identifying a priority public investment project**. A PPP is one way to deliver public investment—moreover, one that ‘locks in’ the specifications of the project over a long-term period. Potential PPP projects therefore typically emerge from a broader public investment planning and project selection process. At some point in this process some or all proposed public investment projects may be **screened**, to determine whether they may provide more value if implemented as a PPP.

Developing and implementing the PPP then involves several stages:

- **Structuring and appraising the PPP**—once a priority public investment project has been identified and initially approved for development as a PPP, the next step is typically to prepare the PPP structure, or ‘key commercial terms’—including the proposed contract type, risk allocation, and payment mechanisms. This proposed PPP structure can then be appraised. Box 3.3: *PPP Project Appraisal Criteria* describes typical appraisal criteria and how these are assessed: value for money as a PPP, and affordability, as well as likely marketability as a PPP, in addition to the technical and economic viability of the underlying project (which may have already been assessed prior to identifying the project as a PPP, as described in Box 2.6). The proposed PPP structure and appraisal analysis is often pulled together in a ‘business case’ is often also developed, to demonstrate why the PPP is a good investment decision. 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. Since the bidding process typically also establishes some key parameters of the contract—in particular its cost—most processes involve a final approval at this stage. The transaction stage is complete when the project reaches financial close.

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. Section 3.6: *Dealing with Unsolicited Proposals* provides details and examples.

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 [46, 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) [#68]. 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) [#171, 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) [#179, 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 [#185, 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 [#199, Title III, Articles 7-9]
- The **Implementing Rules and Regulations of the Philippines BOT Law** set the PPP process in the Philippines [#203, pages 11-51 and Annexes]
- In Puerto Rico, the **PPP Act** (2009) [#210, 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) [#219] 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
- **Spain's Public Procurement Law** (2011) [#223] has a detailed description of the PPP process, including the project appraisal requirements, disclosure requirements at each stage, the approval process, and tendering options.

2.3.2 Institutional Responsibilities: Implementation

Implementing a PPP successfully requires a range of skills and expertise. Government agencies and individuals 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 institutional arrangements for PPPs is to ensure that all these skills are available to implement PPP projects successfully.

By default, responsibility for implementing a PPP typically falls to the ministry, department, or agency responsible for ensuring the relevant asset or service is provided. However, particularly at the early stages

of a PPP program, such entities may not have the full range of skills and experienced needed: hence, other government entities are sometimes involved. This section briefly describes the range of institutional arrangements for identifying PPP projects; developing and implementing those projects; and managing the PPP contracts.

Identifying PPP projects

As described in Section 2.3.1: *PPP Process* above, PPP projects emerge from the usual public investment planning and project identification process. Responsibility for identifying potential PPPs from among priority public investment projects therefore typically rests with the relevant sector agency or entity, under the oversight of entities responsible for public financial management and planning—for more on PPP review and approval responsibilities see Section 2.3.3 *Institutional Responsibilities: Review and Approval* below.

Sometimes a specialized PPP team may be involved in the PPP identification process, as described in Section 2.3.4: *Dedicated PPP Units*. For example, a PPP unit may provide support to sector agencies in screening projects for PPP potential—particularly at the early stage of a PPP program when sector agencies may have limited understanding of how PPPs work. Sometimes PPP Units are specifically given the task of promoting the use of PPP. This can help overcome initial anti-PPP bias at the early stage of new PPP programs. However, it can also risk distorting the public investment planning process—pushing forward projects because they appear to be doable as PPPs, rather than because they are public investment priorities. Instituting a clear PPP process with appropriate approvals, as described in Section 2.3.1: *PPP Process* and Section 2.3.3: *Institutional Responsibilities: Review and Approval*, helps overcome this risk.

Developing and implementing PPP projects

Responsibility for developing and implementing the PPP project—that is, for structuring the PPP, designing the PPP contract, and carrying out the PPP transaction—typically also 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 [202, 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 [224]

- 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. The contracting authorities also manage the procurement process [#55, Chapter 4.2, page 34].

However, sector agencies may lack some of the skills needed to identify and develop PPP projects successfully. 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. 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 Peru, 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 Peru** [#297] provides further details on the institutional framework for implementing PPPs
- Involving dedicated PPP units, as described in Section 2.3.4. 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 Public Works as the implementing agency for PPPs, through its dedicated concessions unit [#46, Article 1-3, 6-9, 15-21, 25, 27-30, 35-36, 39-41]. Section 2.3.4 provides several more examples of PPP units and the extent of their roles in implementing PPPs.

Even governments with extensive experience using PPPs typically also make use of external advisors to support in detailed preparation and appraisal of a proposed PPP, as described in Box 2.6: *Use of external advisors* below.

Box 2.6: 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 [#271, #88]

The extent and nature of external advisory support needed may change as the government and the country gains PPP experience. Initially, governments may rely heavily on advisors, and contract 'full service' transaction advisors providing the full range of technical skills needed as well as overall strategic support. Over time, responsible government teams may be better able to play an integrating role, and use advisors to provide specific technical or legal inputs.

Even when working with experienced advisors, however, it is important for the contracting authority to develop the internal capacity to manage the process effectively—to oversee the work of the advisors, and retain ownership of the structuring decisions. Over-relying on external consultants to drive the procurement process can put the contracting authority in a weak position for managing the contract over its lifetime.

Managing PPP Contracts

Monitoring the project performance and managing the contract usually falls to the contracting authority. From roads and bridges to water provision and hospital services, line ministries and agencies typically have the required technical knowledge and the policy focus for monitoring delivery. Some countries reduce conflict in contract management by outsourcing to credible external entities, such as engineering firms, or research institutions, certain specialized monitoring activities. For example, in Brazil, the state government of Minas Gerais hires 'Independent Verifiers' for monitoring PPP performance; in France, engineering firms are hired for monitoring PPP hospital infrastructure performance.

However, managing PPP contracts can be complex—particularly when it comes to dealing with change that inevitably occurs over the lifetime of the contract (as described in Section 3.7.3: *Dealing with Change*). Some countries therefore involve other, specialized entities in the contract management function; for example by:

- Creating a **centralized contract management support function**. For example, the United Kingdom, being a pioneer in large scale use of PPP contracts, was one of the first countries to experience this need. In 2006 the British Treasury invited the then-PPP Unit, Partnerships UK, to create a PFI Operational Taskforce, operating on behalf of the Treasury [232, page 3]. This taskforce provided support to hundreds of contract managers and published guidance. The central PPP unit for British local governments, 4Ps (now called Local Partnerships—a company jointly owned by HM Treasury and the Local Government Association) also has a role in supporting local governments in carrying out their contract management role, and published in 2007 a **Guide to Contract Management for PFI and PPP Projects** [229]
- **Including responsibility for some aspects of contract management among the responsibilities of a dedicated 'PPP Unit'**, as described further below. For instance, the Concessions Unit of the Ministry of Public Works (MOP) in Chile monitors performance and manages PPP contracts on behalf of several ministries. Often this involvement may be limited to 'non-routine' events, or particularly challenging contract management tasks. In Korea, the PPP Unit PIMAC manages PPP contracts during the sensitive construction phase
- **Allocating contract management responsibility to an independent regulator**—a solution when relevant variables, such as the mechanism determining the fees to collect over time, are not clearly prescribed in the contract. However, the functions of 'regulator' and of 'contract manager' may collide—the contract manager is supposed to protect the public interest and the public purse, while the regulator may have a distinct and legally-mandated set of interests to preserve.

2.3.3 Institutional Responsibilities: Review and Approval

A PPP project is a type of public investment. Most governments have systems for reviewing and approving capital investment projects: to ensure all projects are effective at meeting objectives; provide value for money; and in line with fiscal priorities. 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 review and approval requirements for PPPs. See Table 2.4 below for some examples.

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: *Typical PPP Process*. These iterative reviews are sometimes called ‘gateway’ processes. **Monteiro’s article in IMF’s book on PPPs** [#214] describes a typical ‘gateway’ process, and how this process works in Portugal. 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.

Finance ministries typically have a leading role in this process, given their responsibilities for managing government resources, and (often) economic and fiscal policy. The IMF emphasizes the importance of the role of the finance ministry in its **book on Public Investment and PPPs** [#214, page 10]. In a few countries another entity has overall responsibility for overseeing the public investment program, and hence may play the same role for PPPs—such as the National Economic Development Agency (NEDA) in the Philippines. Many Ministries of Finance have established special PPP units through which to carry out their filtering and monitoring functions, as described further below.

Other oversight agencies can also have a role in reviewing and feeding into PPP project approvals, mirroring their roles in any major capital investment project. These can include:

- **Planning agencies.** Some systems separate responsibility for planning and project appraisal from fiscal oversight, with the latter housed in a dedicated planning agency. For example, in Chile the National Planning Authority must review and approve the economic analysis of proposed PPPs, as is the case for all public investment projects
- **Attorney generals** may be required to approve major government contracts, including PPPs, as part of their role as the government’s legal advisor. 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 [#224, pages 15-16].
- **Supreme audit entities.** Many Latin American countries also require approvals from audit entities that are independent of the executive branch of government, as described further in Section 2.5: *Broader PPP Program Governance*. For example, in Brazil, the Courts of Audit (the federal Tribunal de Contas da União, or TCU, and the sub-national Courts) is required to review each PPP project and its legal documents before it can go to market.

These additional reviews can be important checks on the quality and legality of the project appraisal and development process. However, they can also risk introducing delays at crucial points. Mechanisms for coordination can help, as described below. Capacity-building may also be needed to ensure these

institutions are able to fulfill their roles as they relate to PPPs.

Ultimately approval may be by Cabinet or Parliament; typically aligned with requirements for other investment projects. Jurisdictions vary as to which entity can 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** [#161, pages 113-114], approval power may depend on the size of the project, as is typically the case for other capital investments.

Coordination

Investment decision-making for public investment projects is typically coordinated around the annual budget process. However, because PPPs often do not have immediate budget implications, specific coordination mechanisms may be needed to ensure reviews and approvals proceed smoothly and do not hold up the project development process. In some cases PPP units are tasked with a coordinating role, as described further in Section 2.3.4 below. Some governments also form inter-departmental committees to oversee each PPP transaction, to ensure the perspectives of oversight agencies are taken into consideration throughout the project development process rather than just at review points.

Table 2.4: Example PPP Approval Requirements

Country	Reference	Approval Requirements
State of Victoria, Australia	National PPP Guidelines- Partnership Victoria Requirements Version 2 (2010) [#12, page 5].	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 (before issuing the requests for expressions of interest), readiness for market (before issuing project briefs and contract), readiness for service (before the contract is executed), and benefits evaluation [#12, pages 5-6]
Chile	Concessions Law (Law 20410, 2010) [#46, 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) [#55, Section 3.2.3] Also set out in the National PPP Law (Law 1508, 2011) [#52, article 26]	<p>PPPs must be approved by:</p> <ul style="list-style-type: none"> ▪ CONFIS—the National Fiscal Council, which leads the national fiscal policy and coordinates the budgetary system, approves the future appropriations (vigencias futuras) 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 ▪ 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 (1994) [#202, Rule 2, pages 16-19]	All national projects and projects over PHP200 million (US\$4.6 million) require approval from the Investment Coordination Committee (ICC) under the National Economic and Development Authority (NEDA) Board. The members of the NEDA Board are Cabinet members responsible for the major infrastructure, economic and finance departments. PPP projects also require approval from both the NEDA Board and the President, upon recommendation by the ICC. 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.
South Africa	Public Finance Management Act and Treasury Regulation 16 (2004) [#219, pages 8-10]	PPP approvals are made by the Treasury, through its PPP Unit. 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

2.3.4 Dedicated PPP Units

Government teams aggregating staff with specific knowledge on PPPs are often called 'PPP Units'. The functions of these PPP Units vary widely, as do their location within Government and team structure—reflecting the variation in priorities and constraints facing PPP programs both between governments, and within a government over time as the PPP program evolves.

Functions allocated to such 'PPP Units' can include:

- **Policy guidance and capacity building**—defining PPP policies and processes, and building the capacity of implementing agencies to follow those processes. This can often include preparing guidance materials and standard documentation for PPPs. Table 2.1: *Example PPP Program Objectives* and the 'key references' section in Module 3 provide examples of such guidance material
- **PPP promotion** both within and beyond government—that is, encouraging sector agencies to consider using PPPs, or promoting the opportunities presented by the PPP program to potential investors
- **Technical support** in implementing PPP projects. As described in Section 2.3.2: *Institutional Responsibilities: Implementation* above, this may involve providing hand-holding support to responsible implementation teams in Ministries or Agencies; or being directly responsible for some aspects of PPP implementation
- **'Gatekeeping'**, or reviewing and overseeing the management of PPP projects for efficiency and affordability; and either approving PPP projects, or advising on the approval process. As described in Section 2.3.3: *Institutional Responsibilities: Review and Approval*, such reviews can take place at several stages during project development; while the oversight role of such PPP teams can extend into PPP implementation and portfolio management.

PPP units may perform more than one of these functions, while a single PPP program may involve more than one PPP unit performing different roles.

The structure and location within government and structure of PPP units typically depends on their combination of functions, as well as existing institutional roles and experience within Government. PPP

units may be departments within ministries or agencies, units with some kind of special status but reporting to ministries, autonomous government entities, or even government-owned or public-private corporations. Gatekeeping units are most often located within ministries of finance, or other oversight agencies; while technical support units may be housed centrally, sometimes alongside other relevant functions such as procurement, or be established at the sub-national or sector level where a sector has a significant PPP program. Units with a PPP promotion focus may part of broader investment promotion entities.

The functions of PPP units, and hence their structure, may also change over time as the PPP program evolves. For example, in the United Kingdom, the original Treasury Task Force (its first PPP Unit) was partially converted into a joint public-private venture (Partnerships UK, or PUK, 51 percent owned by private entities), with more of a focus on PPP promotion and technical support. However, as the PPP program developed and ministries and agencies gained more experience, the focus shifted towards oversight and integration of PPP with the broader public investment function. Eventually PUK was reabsorbed into government as 'Infrastructure UK'.

The following studies provide more information on the functions and structure of PPP Units, detailed case studies, and assessments of the effectiveness of these units in achieving their objectives:

- An **OECD study on PPP units** [#195], which describes the range of PPP unit functions along the lines of the list above, and provides detailed case studies of PPP Units in Germany, Korea, South Africa, the United Kingdom, and the State of Victoria, Australia
- A **report by the Brookings Institution** [#162] provides a similar break-down of the functions of PPP units, into three categories: review bodies, or gatekeepers; full service agencies providing technical assistance to review agencies, and centers of excellence acting as repositories of best practice.
- A **set of reports published by the European PPP Expertise Centre**, based in Luxembourg, on member countries' PPP Units and institutional frameworks [#85, #86]

Key References: PPP Processes and Institutional Responsibilities	
Reference	Description
Yescombe, E. R. (2013) <i>Public-Private Partnerships: Principles of Policy and Finance</i>, 2nd edition, Elsevier Science, Oxford	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
Chile, Ministerio de Obras Públicas (2010) <i>Ley y Reglamento de Concesiones de Obras Públicas</i>, Santiago	Sets out the processes for handling unsolicited proposals, tendering, monitoring, and dispute resolution
Egypt, Ministry of Finance (2007) <i>National Program for Private Partnership</i> (2nd ed.) Cairo	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
Kim, Jay-Hyung, Jungwook Kim, Sung Hwan Shin & Seung-yeon Lee (2011) <i>PPP Infrastructure Projects: Case Studies from the Republic of Korea (Volume 1)</i>, Manila, Philippines: Asian Development Bank	This report reviews the PPP program in Korea, including case studies of interesting PPP projects
Malaysia, Jabatan Perdana Menteri (2009) <i>Garis Panduan: Kerjasama Awam-Swasta</i>, Kuala Lumpur	The Government of Malaysia's policy framework and procurement process for PPPs are outlined in this document

Mexico, Congreso General de los Estados Unidos Mexicanos (2012) <i>Ley de Asociaciones Público Privadas</i>, Ciudad de México	Sets out in detail the process and institutional responsibilities for developing and implementing PPP projects in Mexico
Peru, Congreso de la República (2008) <i>Lei N° 1012</i>, Lima	Sets out the entire PPP process (from appraisal to tendering and 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)
Philippines, Congress (1994) <i>Republic Act No. 7718</i>, Manila	The set of laws for PPPs in the Philippines, including implementing rules and regulations of the PPP process
Puerto Rico, Legislature (2009) <i>No. 29 (S. B. 469)</i> San Juan	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.
South Africa, National Treasury (2004) <i>PPP Manual: National Treasury PPP Practice Notes issued in terms of the Public Finance Management Act</i>, Johannesburg	The comprehensive PPP manual outlining the PPP procurement process for South Africa, including the approval process
España, Ministerio de Economía y Hacienda (2011) <i>Texto Refundido de la Ley de Contratos del Sector Público, Boletín Oficial del Estado</i>, 276, I, 117729-117914	Describes the different stages and studies that must be carried out when using a PPP as a procurement option. PPP that use private public-private legal framework will take into account the principles of transparency, openness, and non-discrimination of public legal framework.
European PPP Expertise Centre (2011) <i>The Guide to Guidance: How to Prepare, Procure, and Deliver PPP Projects</i>, Luxembourg	A guide and sourcebook for PPP policies and project implementation. Chapter 1 presents a short guide on project identification
World Bank (2011) <i>PPP in Infrastructure Resource Center for Contracts, Law and Regulation</i>	“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
Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i>, World Bank/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
World Bank (2009) <i>Toolkit for Public Private Partnerships in Roads and Highways</i>	An online product. 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
United Nations (2004) <i>Model Legislative Provisions on Privately Financed Infrastructure Projects</i>, New York	This report by the UN offers legislative recommendations and model provisions for PPP legislation that are favorable to privately financed infrastructure projects
Yong, H. K. (Ed.) (2010) <i>Public-Private Partnerships Policy and Practice: A Reference Guide</i>. London, UK: Commonwealth Secretariat	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
Republic of Korea, Ministry of Strategy and Finance (2010) <i>Basic Plan for Public-Private Partnerships (Public Notice 2010-141)</i> Seoul	Establishes the PPP process and institutional responsibilities of various parties involved in the PPP process.
United States, Federal Highway Administration (2009) <i>Public Policy Considerations in Public-Private Partnership (PPP) Arrangements</i>, Department of Transportation, Washington, D.C.	This report reviews how different states within the United States have responded to the issues most frequently raised 14 PPP issues. Both legislative and contract provisions are examined in order to identify how states vary in addressing the public policy concerns in PPP arrangements.
United Kingdom, Her Majesty’s Treasury (2011) <i>Valuing infrastructure spend: supplementary guidance to the Green Book</i>, London	Based on interviews across 10 departments in the United Kingdom, the report develops a benchmarking model which can be used to compare the management performance of PFI and PPP programs.

<p>European PPP Expertise Centre (2012) <i>France: PPP Units and Related Institutional Framework</i>, Luxembourg</p>	<p>The report surveys the developments in PPP legislations and institutions in France. It describes the role of the central PPP unit (MAPPP) in relation with other PPP units in respective line ministries.</p>
<p>Tanzania (2010) <i>Public Private Partnership Act</i></p>	<p>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</p>
<p>Colombia, Ministerio de Hacienda y Crédito Público (2010) <i>Manual de Procesos y Procedimientos para la ejecución de Asociación Público Asociaciones Público-Privadas</i>, Bogotá</p>	<p>Manual that provides, in detail, the PPP procurement process in Colombia</p>
<p>Zevallos Ugarte, J. C. (2011) <i>Concesiones en el Perú: Lecciones Aprendidas</i>, Lima, Perú: Fondo Editorial de la USMP</p>	<p>Describes lessons learned from Peru's PPP program, including a description of the institutional arrangements for implementing PPP projects</p>
<p>Bernardin Akitoby, Richard Hemming & Gerd Schwartz (2007) <i>Public Investment and Public-Private Partnerships</i>, Economic Issues 40, International Monetary Fund</p>	<p>A short booklet describing the implications of PPPs for public investment, including how PPP commitments should be managed and controlled</p>
<p>Australia, Department of Treasury & Finance (2010) <i>National PPP Guidelines: Partnership Victoria Requirements (Version 2)</i>, Melbourne</p>	<p>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</p>
<p>Philippines, National Economic and Development Authority (2004) <i>ICC Project Evaluation Procedures and Guidelines</i>, Manila</p>	<p>The guidelines by which projects are evaluated by the Investment Coordination Committee (ICC) in the Philippines, including reporting requirements of the implementing agency</p>
<p>Tim Irwin (2007) <i>Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects</i>, World Bank</p>	<p>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</p>
<p>Colombia, Congreso (2012) <i>Law 1508</i>, Bogotá</p>	<p>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)</p>
<p>United Kingdom, National Audit Office (2006) <i>A Framework for evaluating the implementation of Private Finance Initiative projects</i>, London</p>	<p>The report describes the evaluation framework which takes into account the entire lifecycle of a project from the initial strategic analysis to the mature operational phase. The matrix covers six key business management themes across six stages in the lifecycle of the project.</p>
<p>Patricia Leahy (2008) <i>Framework for PPP Audits in the United Kingdom</i>, in Schwartz, Corbacho & Funke (eds.), <i>Public Investment and Public-Private Partnerships</i> (269-278) International Monetary Fund</p>	<p>The book chapter examines the how three PPP evaluation reports impacted and improved the PPP process in the United Kingdom.</p>
<p>World Bank (2013) <i>Implementing a Framework for Managing Fiscal Commitments from Public Private Commitments</i>, Operational Note</p>	<p>Presents practical guidance on how to implement that framework.</p>

Key References: PPP Units	
Reference	Description
World Bank (2007) <u>Public Private Partnership Units: Lessons for their Design and Use in Infrastructure</u>	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
Mark Dutz, Clive Harris, Inderbir Dhingra & Chris Shugart (2006) <u>Public Private Partnership Units: What Are They, and What Do They Do? Public Policy for the Private Sector Note, 311</u>	A short note reviewing several country experiences with PPP units, and provides high-level recommendations to improve governance and their effectiveness
Edward Farquharson & Javier Encinas (2010) <u>The U.K. Treasury Infrastructure Finance Unit: Supporting PPP Financing During the Global Liquidity Crisis</u> , World Bank	Describes the U.K. Treasury Infrastructure Finance Unit, which was created in response to the dearth of private sector lending due to the global financial crisis in 2008
Jay-Hyung Kim, Jungwook Kim, Sung Hwan Shin & Seung-yeon Lee (2011) <u>PPP Infrastructure Projects: Case Studies from the Republic of Korea (Volume 1)</u> , Manila, Philippines: Asian Development Bank	This report reviews the PPP program in Korea, including case studies of BTO and BTL PPP projects
World Bank (2006) <u>India: Building Capacities for Public-Private Partnerships</u>	More details on case studies, including their applicability to India
Farrugia, Reynolds & Orr (2008) <u>Public-Private Partnership Agencies: A Global Perspective</u> , Working Paper #39, Stanford, USA: Collaboratory for Research on Global Projects	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
Organization of Economic Cooperation and Development (2010) <u>Dedicated Public-Private Partnership Units: A Survey of Institutional and Governance Structures</u> , Paris, France French Version: <i>Les Unités Consacrées aux Partenariats public-privé: une étude des structures institutionnelles et de gouvernance</i>	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)
Burger (2006) <u>The Dedicated PPP Unit of the South African Treasury</u> , Paper presented at the Symposium on Agencies and Public-Private Partnerships, Madrid	This paper provides a review of the PPP program in South Africa and its dedicated PPP unit
South Africa, National Treasury (2004) <u>National Treasury PPP Practice Notes issued in terms of the Public Finance Management Act</u> , Johannesburg	The comprehensive PPP manual outlining the PPP procurement process for South Africa, including the approval process
European PPP Expertise Centre (2012) <u>France: PPP Units and Related Institutional Framework</u> , Luxembourg	The report surveys the developments in PPP legislations and institutions in France. It describes the role of the central PPP unit (MAPPP) in relation with other PPP units in respective line ministries.
Istrate & Puentes (2011) <u>Moving Forward on Public Private Partnerships: U.S. and International Experience with PPP Units</u> , Washington, DC: Brookings Institution	This report surveys international PPP units and U.S. domestic PPP units. It addresses whether a U.S. federal PPP unit is desirable.

2.4 Public Financial Management Frameworks 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 2.7: *Types of Fiscal Commitments to PPPs* 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 2.7: 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:

- **'Viability gap' payments**—a capital subsidy, which may be phased over construction based on achievement of milestones, 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** [#206] defines direct and contingent liabilities, and describes the fiscal risks posed by contingent liabilities in general.

Section 1.3: *Infrastructure Challenges and How PPPs Can Help* 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:

- Assess the fiscal implications of a proposed PPP project
- Control aggregate exposure to PPPs
- Budget for fiscal commitments to PPPs
- Reflect fiscal commitments to PPPs in government accounts and reports.

The following resources provide helpful guidance across this range of public financial management issues for PPPs:

- An **IMF publication on Public Investment and Public-Private Partnerships** [#214] 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
- **Funke, Irwin and Rial’s paper on Budgeting and Reporting for Public-Private Partnerships** [#108] describes how well-defined approaches to accounting, reporting, and budgeting for PPP projects can help ensure PPP decision-making is driven by value for money considerations not accounting quirks
- **Posner, Ryu and Tkachenko’s report on the budgetary implications of PPPs** [#207] examines the issues posed by PPPs for central budget offices—including the impact of PPPs on near and longer term fiscal targets and priorities, current budgetary practices of PPPs, and possible strategies to promote greater consideration of the short and longer term affordability of PPPs given fiscal space and priorities
- A **World Bank note on implementing a framework for managing fiscal commitments from PPPs** [#292] provides guidance and examples on all these aspects of public financial management for PPPs; a related **World Bank study on managing fiscal commitments from PPPs in Ghana** [#290] goes into more detailed recommendations, including for example providing template reporting formats.

2.4.1 Assessing Fiscal Implications of 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 2.3: *PPP Processes and Institutional Responsibilities* 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. In doing so, a finance ministry typically considers two questions: 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. Section 3.2: *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. Section 3.2: *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** [#196, page 21] 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 2.5: *Options for Assessing the Affordability of Fiscal Commitments to PPPs* describes two alternatives for PPPs. The approach may be different for different types of fiscal commitments. Limits on the total stock of fiscal commitments to PPPs, as described further below, may also affect decision-making for particular projects.

Table 2.5: Options for Assessing the Affordability of Fiscal Commitments to PPPs

Option	References and Examples
<p>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</p>	<p>An OECD survey published in 2008 [described in [#194], pages 42-43] found:</p> <ul style="list-style-type: none"> ▪ In Brazil, project studies must include a fiscal analysis for the next ten years ▪ 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 ▪ In France, affordability of a PPP is demonstrated by reference to a “ministerial program”—a multi-year indicative budgeting exercise. <p>The PPP Manual of South Africa (2004) section on affordability [#219, Module 2] also describes a similar approach.</p>
<p>Introduce budget rules that mean the affordability of PPP commitments are considered in the annual budget process</p>	<p>For example:</p> <ul style="list-style-type: none"> ▪ 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 [#19, Module 2] and described in Irwin’s review of PPP contingent liability management [#162, pages 10-11] ▪ 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 [#49, Article 6]

2.4.2 Controlling Aggregate 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** [#161, p.114-115]. For example:

- **Peru’s** Legislative Decree No.1012 (2008) [#199, 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 [#161])
- **Brazil’s** Federal PPP Law (Law 11079, 2004) [#34] initially limited total financial commitments undertaken in PPP contracts to a maximum of 1 percent of annual net current revenue—in 2009 Law 12024 raised this limit to 3 percent, and in 2012 Law 12766 raised it again to 5 percent.

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. 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 and restricted to the national level as highlighted by **Liu and Pradelli** [#177]. Their paper proposes a more rigorous monitoring framework of fiscal risks imposed by PPP debt by using a minimum set of five sub-national debt indicators which also takes into account SPV's debt. **Irwin** [#161] also describes an alternative of establishing a limit on 'debt plus PPP commitments'.

2.4.3 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.

Budgeting for Direct Commitments to PPPs

Direct commitments to PPP include capital subsidies during project construction, as well as ongoing payments such as shadow tolls or availability payments.

When governments provide **capital subsidies** 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 2.8.

Box 2.8: Viability Gap Fund in India

In July 2005, the Cabinet Committee on Economic Affairs established India's Viability Gap Fund (VGF) program through its approval of the '*Scheme for Financial Support to Public Private Partnerships in Infrastructure*'. The program has been very successful. During its first nine years, 42 projects with a total project cost of over US\$5 billion and VGF allocation of US\$916 million have received final approval, while 178 projects with a total project cost of \$17.7 billion and a VGF allocation of \$3.4 billion 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 VGF contribution being called on or in some cases with 'negative grants', or upfront payments by the private sector.

The scheme is funded by the Government through its budgetary resources, with budget provisions made on an annual basis linked to likely demand for disbursements during the year. In the first year a budgetary provision of US\$40 million was made. The scheme also provides for a revolving fund to be kept at the disposal of the Empowered Committee to ensure liquidity of the VGF, and replenished as needed. In any given year, the scheme provides for a cap on the value of projects approved equivalent to ten times the budget provisions for VGF in the annual plan—to ensure continuing liquidity and preventing bunching of disbursement requests as far as possible. This cap can be modified if the Ministry of Finance considers necessary. In practice, the cap has not been binding, and the total VGF support during any year has been based on the estimated requirement for disbursements during the coming year.

Source: Department of Economic Affairs, Government of India (2013) Scheme for Support to Public Private Partnerships in Infrastructure [#133]

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. 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. 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 **World Bank report on fiscal subsidies for PPPs** [#287]. 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).

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** [#44, 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.

A **second option, also described in detail by Cebotari** [#44, 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 [#287, 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 Division 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 [#49, 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 [#37, Articles 12-23]. Section 5 of State Governor’s Decree [#36, 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 [#36, 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 CPP is an independent legal entity. 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. The World Bank review of Subsidy Funds for PPPs in LAC [#287, 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 for infrastructure 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 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 [#149]
- **South Korea**—The Infrastructure Credit Guarantee Fund (ICGF) was established in 1994, being managed by a public financial institution. ICGF guarantees each project up to 300 billion won, for an annual guarantee fee capped at 1.5 percent of the total guarantee amount [#221]. Typically, the annual guarantee fees range between 0.3 and 1.3 percent. The guarantee operates as a subrogation—that is, ICGF pays back loans taken by the project company to the financial institutions in the case where the project company defaults on debt payments, if funds become insufficient, the government can provide additional contributions [#171].

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: *Assessing Fiscal Implications of a PPP Project*. 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 government policy requires IIGF to accept contingent liabilities on the basis of careful assessment of the risk by the fund’s management.

2.4.4 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 2.9: *Types of Government Financial Reporting* 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 2.9: 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 Eurostat for European Union countries, or the IMF’s Government Finance Statistics Manual (GFSM) published in 2001 but with regular updates since that date [\[#156\]](#)
- **Government financial statements**—most governments also 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, [\[#153\]](#)) 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
- **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) [\[#157\]](#) and the OECD’s Best Practices for Budget Transparency (2002) [\[#191\]](#).

Helpful overview resources on reporting and accounting for PPPs include:

- **Funke, Irwin, and Rial’s paper on budgeting and reporting for PPPs** includes a section on accounting for and reporting PPP transactions, which describes in detail the implications of accounting standards and statistical standards for PPPs [\[#108\]](#), pages 9-19]
- Part 4: PPP Accounting, Reporting, and Auditing in the **collection of articles published by the IMF** on Public Investment and Private Partnerships [\[#214\]](#)

- An **OECD report on PPPs, value for money, and fiscal risk**, which includes a section on budget scoring and accounting treatment of PPPs [[#39](#), pages 90-105]
- **Cebotari's report on contingent liabilities**, which includes a section on disclosing contingent liabilities [[#44](#), pages 32-41], with practical examples of different countries' approaches, and an annex on the relevant international standards.

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 creating public assets, liabilities or expenses. 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. Section [1.3.1](#) describes how some governments have used PPPs to circumvent limits on liabilities.

The financial standards mentioned in Box 2.9: *Types of Government Financial Reporting* vary in their treatment of PPP fiscal commitments. A few standards specifically address when and how direct liabilities and assets of PPP projects should be recognized by the contracting governments:

- **International Public Sector Accounting Standards 32**—introduced in 2011, IPSAS-32 defines when PPP assets and liabilities should be recognized, assuming a government 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' PPPs is less clear, and depends on the details of the contract [[#153](#), [#154](#)]. Moreover, IPSAS standards and associated guidance notes assume full accrual accounting (for example, such that the government prepares a full balance sheet capturing both assets and liabilities)—it is less clear how the principles of this standard can be applied where governments are practicing cash accounting
- **Recent updates to the IMF's Government Finance Statistics Manual** set out criteria for classifying PPP assets and liabilities for statistical reporting purposes. Under these criteria, PPP assets and liabilities are accounted for in the government's balance sheet if the government bears most of the project's risks and rewards—for example, taking into consideration the degree to which the government controls the design, quality, size, and maintenance of the asset, and bears construction risk; as well as the allocation of demand risk, residual value and obsolescence risk, and availability risk
- **Eurostat guidelines**—Eurostat requires European governments to recognize PPP liabilities in debt statistics where the government retains construction risk or demand or availability risk. **Rougemont's article on Accounting for PPPs** [[#214](#), pages 256-268] provides more detail. Since PPPs transfer those risks to the private party, under this rule most PPPs remain off the government's balance sheet.

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** [#44, 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 than 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.

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** [#214, pages 14-17] describes what information should be disclosed for PPPs in general, and specific disclosure requirements for guarantees. A **World Bank report on Disclosure of Project and Contract Information in PPPs** reviews practices in several jurisdictions and present best practices in the field.

Disclosing contingent liabilities can be particularly challenging, since it can be difficult to estimate their value. Section 3.2: *Appraising PPP Projects* provides guidance on how the value of contingent liabilities can be estimated. **Cebotari's paper on Government Contingent Liabilities** [#44, pages 32-41] 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. Since 2007, **Chile's Budget Directorate of the Ministry of Finance** has published an annual contingent liabilities report [#45], 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 PPPs

Reference	Description
Polackova, H. (1998) <i>Government Contingent Liabilities: A Hidden Risk to Fiscal Stability</i>. Policy Research Working Paper 1989, World Bank	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
Schwartz, Corbacho & Funke (eds.) (2008) <i>Public Investment and Public-Private Partnerships: Addressing Infrastructure Challenges and Managing Fiscal Risks</i>, International Monetary Fund	A collection of papers on managing the fiscal impact of PPPs, drawing from 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
Organization for Economic Cooperation and Development (2008) <i>Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money</i>, Paris	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

<p>Tim Irwin & Tanya Mokdad (2010) <u><i>Managing Contingent Liabilities in Public-Private Partnerships: Practice in Australia, Chile, and South Africa</i></u>, World Bank</p>	<p>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</p>
<p>Tim Irwin (2007) <u><i>Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects</i></u>, World Bank</p>	<p>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</p>
<p>Liu, L. & Pradelli, J. (2012) <u><i>Financing Infrastructure and Monitoring Fiscal Risks at the Subnational Level</i></u>, World Bank Policy Research Working Paper 6069</p>	<p>The paper proposes a more rigorous monitoring framework of fiscal risks imposed by PPP debt by using a minimum set of five sub-national debt indicators which also takes into account SPV's debt</p>
<p>Posner, Ryu & Tkechenko (2008) <u><i>Public-Private Partnerships: The Relevance of Budgeting</i></u>, 29TH Annual Meeting of Senior Budget Officials, Organization for Economic Development and Cooperation, Vienna, Austria</p>	<p>The report examines the budgetary treatment and issues raised by PPPs. It reviews the unique budgetary and accounting issues posed by privately financed capital services</p>
<p>World Bank (2012) <u><i>Best Practices in Public-Private Partnerships Financing in Latin America: the role of subsidy mechanisms</i></u></p>	<p>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</p>
<p>Cebotari, A. (2008) <u><i>Contingent Liabilities: Issues and Practice</i></u>, Working Paper WP/08/245, International Monetary Fund</p>	<p>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</p>
<p>Jay-Hyung Kim, Jungwook Kim, Sung Hwan Shin & Seung-yeon Lee (2011) <u><i>PPP Infrastructure Projects: Case Studies from the Republic of Korea</i></u>, Asian Development Bank</p>	<p>This report reviews the PPP program in Korea, including case studies of BTO and BTL PPP projects</p>
<p>International Monetary Fund (2001) <u><i>Government Finance Statistics Manual</i></u></p>	<p>The IMF guidelines on how to report government fiscal statistics</p>
<p>International Monetary Fund (2007) <u><i>Manual on Fiscal Transparency</i></u></p>	<p>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</p>
<p>Organization for Economic Cooperation and Development (2002) <u><i>Best Practices in Budget Transparency</i></u>, Paris</p>	<p>A tool designed to help countries to increase transparency in their budget process, based on best practices</p>
<p>Bernardin Akitoby, Richard Hemming & Gerd Schwartz (2007) <u><i>Public Investment and Public-Private Partnerships</i></u>, Economic Issues 40, International Monetary Fund</p>	<p>A short booklet describing the implications of PPPs for public investment, including how PPP commitments should be managed and controlled</p>
<p>South Africa, National Treasury (2004) <u><i>National Treasury PPP Manual Module 4: PPP Feasibility Study</i></u>, Johannesburg</p>	<p>Part 6 "Demonstrate Affordability" describes the methodology and requirements to demonstrate affordability of a PPP project</p>
<p>Australia, Department of Treasury & Finance (2010) <u><i>National PPP Guidelines: Partnerships Victoria Requirements (Version 2)</i></u>, Melbourne, State of Victoria</p>	<p>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</p>
<p>Colombia, El Congreso (1998) <u><i>Ley 448 de 1998</i></u>, Bogotá</p>	<p>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.</p>
<p>Peru, Congreso de la República (2008) <u><i>Decreto Legislativo N° 1012</i></u>, Lima</p>	<p>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)</p>

Brazil, Congresso Nacional (2004) Lei N° 11079, Brasília	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
Brazil, São Paulo Assembléia Legislativa (2004) <u>Lei 11688/04, São Paulo</u>	Establishes how the CPP is funded, its composition, organizational structure, and its role
Brazil, Governador do Estado de São Paulo (2004) <u>Decreto 48867/04 Decreto N° 48.867, São Paulo</u>	Defines in detail the specific duties of the CPP, including the management of the CPP fund
Republic of Korea, Ministry of Strategy and Finance (2011) <u>Basic Plan for Public Private Partnerships, Seoul</u>	Sets the PPP policy, identifies the areas of PPP project development, and specifies the legal framework governing the PPP procurement process.
International Federation of Accountants (2011) <u>International Public Sector Accounting Standard 32 - Service Concession Agreements: Grantor, New York</u>	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
International Federation of Accountants (2011) <u>International Public Sector Accounting Standard 32 At a Glance—Service Concession Agreements: Grantor, New York</u>	Provides an overview of the IPSAS Standard 32 described above
Chile, Ministerio de Hacienda (2010) <u>Informe de Pasivos Contingentes 2010, Santiago</u>	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)
European PPP Expertise Center (2010) <u>Eurostat Treatment of Public-Private Partnerships: Purposes, Methodology and Recent Trends, Luxembourg</u>	Clarifies the process for determining the impact of PPPs on government debt and deficit, for EU countries.

2.5 Broader PPP Program Governance

The executive branch of government is largely responsible for implementing PPP projects. The processes and institutional responsibilities described in Section 2.3: *PPP Processes and Institutional Responsibilities* 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.

A cornerstone of these accountability mechanisms is the timely and comprehensive **disclosure** of information about the PPP program. The entities and groups outside the executive with a role to play in ensuring good governance of the PPP program can then include:

- **Supreme auditing institutions**—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 also review 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 legislature**—the legislative branch of government often defines 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

- 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 process strengthens accountability, and helps make the PPP program more participatory, transparent, and legitimate. An example of a well-established positive feedback mechanism which involves all three oversight bodies can be seen in the United Kingdom—PPP audit reports are often used in legislative hearings where all their written recordings are available to the public on the National Audit Office's website.

2.5.1 Disclosure of PPP Project and Program Information

Transparency in and of itself is an important principle of governance, as described in Box 2.1: *Good Governance for PPPs*—while timely access to information is also a crucial aspect of accountability mechanisms, including those described in the following sections. To this end, many countries disclose information about PPP projects and programs.

Many governments **proactively disclose** PPP project or contractual information—that is, post this information in the public domain, without receiving a specific public request, such that it is freely accessible to anyone who is interested. This proactive disclosure can be achieved in various ways, such as by creating an online project database with key pieces of contract information, or an online library of PPP contracts, often with accompanying project summaries. Proactive disclosure of project and program information is often the responsibility of a PPP unit—for instance, Chile's PPP unit located in the Ministry of Public Works provides information on contracts, contract variations, and monthly performance reports.

Various countries engage in mandatory proactive disclosure of PPP project contracts in accordance with their transparency laws, freedom of information laws, or PPP laws. The disclosure practices are not uniform across countries, as to whether, when, and what information is disclosed. For example, Chile and Peru disclose the full contract, as does Minas Gerais in Brazil. Other countries, such as the United Kingdom, redact PPP contracts before they are made available to the public, with a view to protecting commercially sensitive information—although the definition of 'sensitive information' varies. Even in countries with no mandatory proactive disclosure, PPP contracts may be proactively disclosed by responsible sector ministries or agencies—for instance, road contracts are disclosed in India.

Other countries, such as South Africa, provide **reactive disclosure**—that is, make information available only in response to a specific request by a member of the public. Procedures for making requests are outlined in the legislation or rules framed under the legislation. The terms of such reactive disclosure may vary by country—including the cost (which may range from nominal to substantial) and the required timeframe, which may be as much as a month or more in many cases.

Disclosing PPP contracts may not be enough for the public to understand them—some additional information on the projects, and a plain-language description of the main contract provisions, is useful. For example, the **Victorian Freedom of Information Act of 1982** requires that, besides publishing all PPP contracts on Victorian Government Purchasing Board website [23], a project summary is published, providing information on the key project features and commercial terms of the project [23, Section 19, page 10].

The World Bank's 2013 report on *Disclosure of Project and Contract Information in PPPs* presents the above diversity of disclosure practices. The report identifies a gradual trend towards broader disclosure, with several countries supplementing contract disclosure with project summaries presenting the main contract provisions and additional information on the project, its origination, and its procurement.

2.5.2 Role of Supreme Auditing Institutions

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.

The mandate of supreme audit entities varies by jurisdiction, but often includes two 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. 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. Audit institutions performing these roles can help improve PPP program governance. However, to be effective in doing so—rather than simply introducing delays, or saddling PPP programs with requirements that are not appropriate for the specific needs of PPP—audit entities may need training and support. INTOSAI, supported by the World Bank and by several Courts of Audits, delivers training activities for auditors, and produced a series of manuals on PPPs.

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** [214, Chapters 17 and 18].

Box 2.10: 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 [#132, Section 3, pages 29-38]. In the United Kingdom, this type of access is provided through mechanisms in the PPP contract itself.

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 [#158, Section 1, Guideline 1, page 9].

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 [#219] 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 2.4.4: *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 [#158] 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 [#10]
- 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 allocation of the project, the development of public sector benchmarks, and adequate monitoring systems.

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 [#254]. 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 [#254]. The findings were discussed in Module 1.

2.5.3 Role of Legislative Bodies

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 2.2: *PPP Legal 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 2.4.2: *Controlling Aggregate Exposure to PPPs*, 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 2.3.3: *Institutional Responsibilities: Review and Approval*. 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. In Guatemala, on the other hand, all PPP contracts require approval from Congress. In the United States as of 2010, nine States require some individual projects to be approved by the state legislature
- **Receiving and reviewing reports on the PPP program**—as described in Section 2.4: *Public Financial Management Frameworks for PPPs*, many governments include information on the PPP program in 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. Parliaments may also commission and receive auditors’ reports on the PPP program and processes, as described further in Section 2.5.2: *Role of Supreme Auditing Institutions*.

Examples of legislative reviews of PPP programs are described below:

- 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 were then made to improve PPP policies and strengthen governance of the projects [#18].

2.5.4 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—by service users or other stakeholders—at various points in the PPP process can improve project design and performance. Equally important, making PPP projects and processes transparent enables PPP performance to be a factor in public policy debate, and in the formation of public opinion on the government’s overall performance.

Public participation in the PPP project process

Involving services users and other stakeholders directly in developing and monitoring a PPP project can improve project design and performance.

During the **PPP project development** stages, stakeholder consultation is an important part of the PPP development process, allowing the concerns of potential service users and others affected by the project to be taken into consideration when structuring and implementing PPPs. Section 3.3: *Structuring PPP Projects* provides more guidance on carrying out stakeholder consultations as part of developing a PPP.

Once the PPP is in place, user feedback can be an important aspect of **PPP performance monitoring**. Firstly, some projects involve user feedback as an efficient, decentralized mechanism for collecting contract monitoring information. Second, an effective mechanism for resolving grievances may be an important aspect of project design. Ultimately, the purpose of the PPP is to provide services to users—in this respect, user satisfaction, or whether services meet users' expectations, can be an important (albeit subjective) measure of PPP project performance alongside more technical or functional attributes.

User feedback mechanisms can be structured in various ways, as described further in Section 3.7: *Managing PPP Contracts*—some projects provide a web portal for continuous user-based input, others conduct regular user surveys. A specific mechanism may also be needed for user grievances.

Key References: Transparency and the Role of the Public

Reference	Description
World Bank (2013) <i>Disclosure of Project and Contract Information in Public-Private Partnerships</i>, Washington, DC	This report reviews disclosure practices for PPP projects and contracts from 11 jurisdictions at the national and sub-national level, representing 8 countries, and presents recommendations on proactive disclosure

Key References: PPP Legal and Regulatory Frameworks

Reference	Description
Anton Eberhard (2007) <i>Infrastructure Regulation in Developing Countries: An Exploration of Hybrid and Transitional Models</i> , Working Paper No.4, World Bank	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
Alexander, I. (2008) <i>Regulatory Certainty Through Committing to Explicit Rules – What, Why and How?</i> Paper based on a presentation made at the 5th Annual Forum of Utility Regulators (AFUR) conference, Accra, Ghana	Focuses on the establishment of predetermined rules committing regulators to future actions
Alexander, I. (2007) <i>Improving the Balance Between Regulatory Independence, Accountability, Decision-making and Performance</i> . Paper prepared for 4th Annual Forum of Utility Regulators (AFUR) conference, Livingstone, Zambia	Focuses on the importance of investor confidence in the regulatory regime
Tonci Bakovic, Bernard Tenenbaum & Fiona Woolf (2003) <i>Regulation by Contract: A New Way to Privatize Electricity Distribution?</i> World Bank Working Paper 14	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

Schwartz, Corbacho & Funke (eds, 2008) <i>Public Investment and Public-Private Partnerships</i> , International Monetary Fund	A collection of papers on managing the fiscal impact of PPPs, drawing from an IMF conference held in Budapest in 2007. Part Four: PPP Accounting, Reporting, and Auditing examines the role of different institutions to ensure accountability
India, Comptroller and Auditor General (2009) <i>Public-Private Partnerships in Infrastructure Projects: Public Auditing Guidelines</i> , New Delhi	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
International Organization of Supreme Audit Institutions (2007) <i>Guidelines on Best Practice for the Audit of Public/Private Finance and Concessions (revised)</i> , Vienna, Austria: General Secretariat	Provides guidelines on best practices for evaluating PPP project throughout the entire lifecycle.
South Africa, National Treasury (2004) <i>PPP Manual Module 7: Auditing PPP Projects</i> , Johannesburg	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
Australia, Audit Office of New South Wales (2006) <i>Auditor-General's Report Performance Audit: The Cross City Tunnel Project</i> , Sydney	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
United Kingdom, National Audit Office (2010) <i>From Private Finance Units to Commercial Champions: Managing complex capital investment programmes utilizing private finance</i>, London	National Audit Office in partnership with Infrastructure UK identified a best practice model for departments engaged in PPP/PFI programs
United Kingdom, Comptroller and Auditor General (2011) <i>Lessons from PFI and other projects (HC 920)</i>; the content of the report is discussed in House of Commons (2011) <i>Lessons from PFI and other projects</i>, HC 1201, London	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
United Kingdom, National Audit Office (2010) <i>The Performance and Management of Hospital PFI Contracts</i>, London	National Audit Office's report on the performance and management of hospital PFI contracts
United Kingdom, National Audit Office (2006) <i>A Framework for evaluating the implementation of Private Finance Initiative projects: Volume 1</i>, London	This report provides a more specialized project performance matrix for PFI projects.



MODULE 3

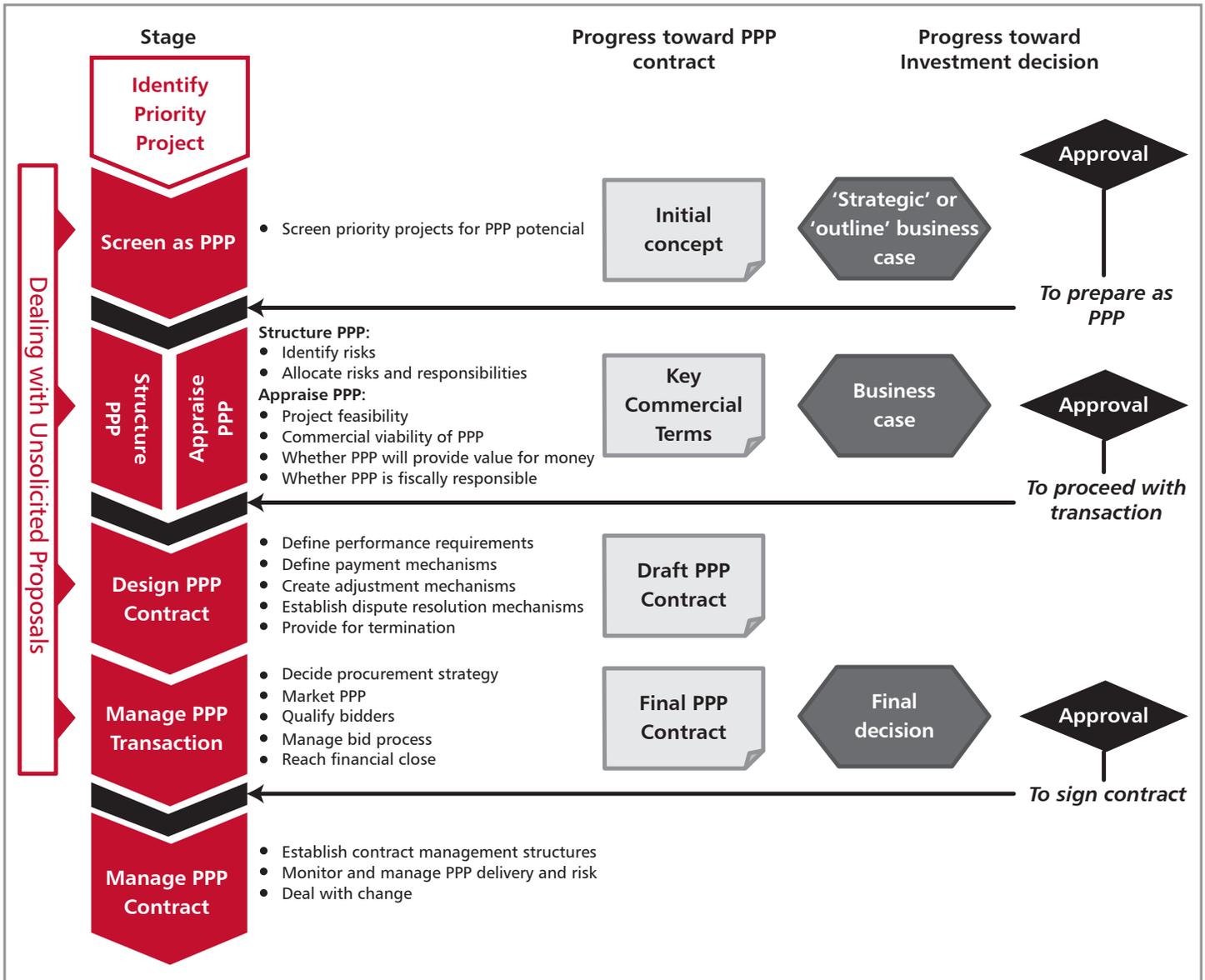
Implementing PPP Projects

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. Section 2.3.1: *PPP Process* introduced the overall PPP development and implementation process, also shown in Figure 3.1: *PPP Development and Implementation Process*. This module describes each stage in the PPP process in more detail, providing links to resources, tools, and further guidance for PPP practitioners.

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 3.3: *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.

Figure 3.1: PPP Development and Implementation Process



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

- **Project identification and screening**—the process of developing and implementing a PPP is typically preceded by **identifying a priority public investment project**, typically through a public investment planning and project selection process. At some point in this process some or all proposed public investment projects are then **screened for their potential as a PPP**
- 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 transaction process is central to achieving value for money from the PPP. As described in Section 3.5: *Managing PPP Transactions*, 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.
- 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** 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: Practical Guidance on Implementing PPP Projects	
Reference	Description
PPP Program Material	
Australia, Infrastructure Australia (2008) <i>National PPP Guidelines: Practitioners' Guide</i> (Vol. 2) Canberra	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
Colombia, Ministerio de Hacienda y Crédito Público (2010) <i>Manual de Procesos y Procedimientos para la ejecución de Asociaciones Público-Privadas (PPP Manual)</i> Bogotá	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
India, Ministry of Finance (2011) <i>PPP Toolkit for Improving PPP Decision-Making Processes</i> , New Delhi	Online toolkit describing PPP process and providing sector-specific guidance and tools for practitioners on all stages of managing a PPP
Brasil, State of Rio de Janeiro, Conselho Gestor do Programa Estadual de Parcerias Público-Privadas - CGP (2008) <i>Manual de Parcerias Público-Privadas - PPPs</i> (PPP Manual) Rio de Janeiro	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
South Africa, National Treasury (2004) <i>Public Private Partnership Manual</i> , Johannesburg	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
France (2011) <i>Les Contrats de Partenariat: Guide Methodologique</i> , Ministry of Economics, Finance, and Industry	A detailed Methodological Guidebook for PPPs, sets out the rationale for PPP; the process for developing and implementing a PPP; and provides detailed guidance for each step

Other Guidance Material and Toolkits	
Kerf, Gray, Irwin, Levesque, Taylor & Klein (1998) <i>Concessions for Infrastructure: A guide to their design and award</i> , World Bank Technical paper 399	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
Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i> , World Bank/PPIAF	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
World Bank (2009) <i>Online Toolkit for Public Private Partnerships in Roads and Highways</i>	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
World Bank (2006) <i>Approaches to Private Participation in Water Services: A Toolkit</i>	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
World Bank (2007) <i>Port Reform Toolkit 2nd ed.</i> , Washington, DC	Provides guidance on several aspects of PPPs in the port sector—including guidance on risk identification, financial analysis, contract structuring, and contract management approaches
Flanagan, J. & Nicholls, P. (n.d.) <i>Public Sector Business Cases using the Five Case Model: a Toolkit</i> , London	Provides guidance on how to produce business cases. It is intended to help anyone involved with, or overseeing, a project to understand the work that is necessary to prove a case for investment

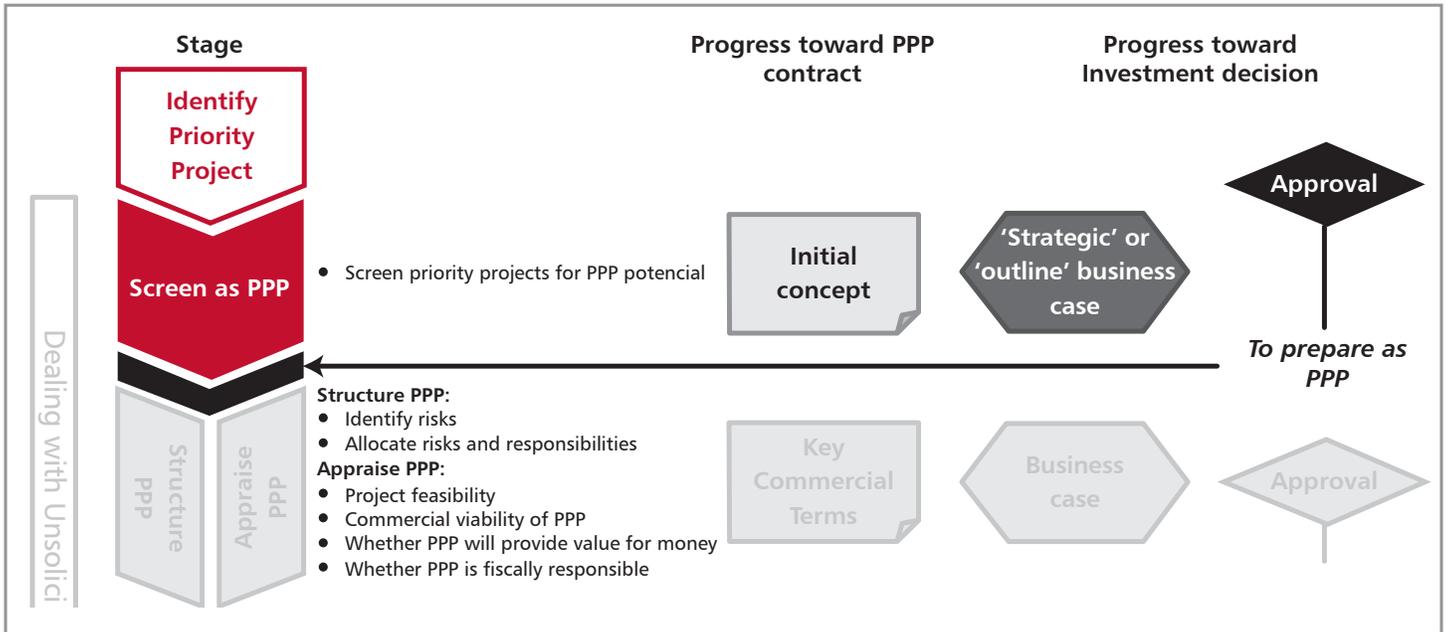
United Kingdom, Her Majesty's Treasury (2008) <i>Competitive Dialogue in 2008: OGC/HMT joint guidance on using the procedure</i>, London	Provides an outline of a general structure which is applicable to most Competitive Dialogue procurements in England, Wales, and Northern Ireland
United Kingdom, Her Majesty's Treasury (2007) <i>Standardization of PFI Contracts: Version 4</i>, London	The report serves three main objectives: 1) to promote a common understanding of the main risks which are encountered in a standard PFI contract; 2) to allow consistency of pricing across a range of similar projects; and 3) to reduce the time and costs of negotiation by enabling all parties concerned to agree a range of areas that can follow a standard approach without extended negotiations.
India, Ministry of Finance (2010) <i>PPP Toolkit for Improving PPP Decision-Making Processes</i>, New Delhi	This is an online toolkit designed to improve decision-making for PPP practitioners across India
India, Ministry of Finance (2008) <i>Guidelines for Formulation, Appraisal and Approval of Central Sector Public Private Partnership Projects</i>, New Delhi	This is a compendium which brings together the guidelines notified by the central Government of India for the formulation, appraisal and approval of central sector PPP projects
India, Ministry of Finance (2007) <i>Model Request for Proposal for PPP Projects</i>, New Delhi	This report provides a Request For Proposal for PPP Projects template as well as a short memorandum on the guidelines for invitation of financial bids for PPP projects
India, Ministry of Finance (2009) <i>Model Request for Qualification for PPP Projects</i>, New Delhi	This report provides a Request For Qualification for PPP Projects template as well as a short memorandum on the revised RFQ for pre-qualification of bidders for PPP projects
India, Ministry of Finance (2006) <i>Guidelines for determining eligibility of proposals for financial support to Public Private Partnerships in infrastructure under the Viability Gap Funding Scheme</i>, New Delhi	This report provides a template with a checklist for financial support to Public Private Partnerships in infrastructure under the Viability Gap Funding Scheme
India, Ministry of Finance (2008) <i>Panel of Transaction Advisors for PPP Projects: A Guide for Use of the Panel</i>, New Delhi	This users' guide describes the processes and the tasks involved in appointing a Transaction Advisor for a PPP transaction using the Panel

3.1 Identifying PPP Projects

The first step towards a successful PPP is identifying a potential PPP project. Since a PPP is first and foremost a public investment, most successful PPP projects originate from the broader public investment planning process, as described in Section 2.3.1: *PPP Process*. At some point in this process, priority public investment projects can be **screened** for their potential to achieve better value for money if implemented as a PPP—several governments have established tools and checklists to support this screening. The **online toolkit for PPPs in India** [141] provides a good overview of PPP project screening process.

As shown in Figure 3.2: *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.

Figure 3.2: Identifying PPP Projects



3.1.1 Identifying Priority Public Investment Projects

The starting point—or precursor—to identifying a potential PPP is identifying a priority public investment project. Many governments have well-defined processes and methodologies for public investment planning—which may extend from setting out sector or infrastructure strategies, assessing project options to meet objectives, conducting detailed feasibility and cost-benefit analyses, to project prioritization in an overall public investment plan or fiscal envelope.

Sound public investment planning and management is crucial to the success of PPP projects. A well-structured and managed PPP will not be effective unless it addresses clearly-identified objectives that are central to sector needs—particularly since the long-term nature of PPP contracts effectively locks in asset and service specifications over a long-term period. However, while public sector investment management provides the context for successful PPPs it is not the focus of this Reference Guide. The **World Bank Website section on Public Investment Management** provides a wealth of resources and examples on this topic.

In some cases, PPP project ideas may also emerge from other sources than the standard public investment planning process. These could include:

- **Sector reform processes.** Governments undertaking reform of an under-performing infrastructure sector may consider PPP among a range of options for introducing private participation to improve performance in a particular infrastructure sector, as described in Section 1.1.2: *What PPP is Not: Other Types of Private Involvement*. The **ADB's PPP Handbook** chapter on sector diagnostic analysis [#8, Chapter 3] describes how potential PPPs may emerge in the context

- **Unsolicited proposals from businesses.** Some governments provide ways in which businesses and other non-government entities may originate PPP project ideas, for consideration by government—as described in Section 3.6: *Dealing with Unsolicited Proposals*. This can be a way to capitalize on the ideas of the private sector on how to solve infrastructure challenges.

However, wherever a PPP is developed outside the typical public investment planning process, this raises the risk that such ideas may not be well-integrated with broader sector and infrastructure plans and priorities. Such project ideas should be subject to the same analysis and screening as any proposed public investment and PPP.

3.1.2 Screening for PPP Potential

At some point in the process of identifying priority public investments, or sector reform options, projects may be **screened for their potential to be implemented as a PPP**. The objective of this screening is to identify—based on the available information—whether the project may provide better value if implemented as a PPP.

In practice, different governments do this PPP screening at different stages, as described in Box 3.1: *PPP Selection in the Public Investment Planning Process* below. Some may screen all projects, as part of a comprehensive ‘procurement options analysis’, as described in [39, pages 47-50]. Others may consider PPP only for certain project types—as may be established in the PPP Policy [see Section 2.1.2: *PPP Program Scope*]. In many countries, the initial impetus to develop a project as a PPP is left to the discretion of the implementing agency.

Box 3.1: PPP Selection in the Public Investment Planning Process

The PPP process can be seen as a ‘branch’ of the broader public investment management process—that is, at some point a project is selected as a potential PPP, and thereafter follows a PPP-specific process. However, this ‘branching’ can occur at different points in the public investment process. For example, this could be:

After budgeting as a public investment project, as is the case in Australia and the Netherlands, where procurement options (including PPP) are assessed only once a project has been approved and budgeted for as a public investment project. If the project is subsequently implemented as a PPP then budget allocations are adjusted accordingly

After project appraisal and approval as a public investment. For example, in Chile all public investment projects undergo cost-benefit analysis by the National Planning Commission, and must pass a hurdle social return rate to be added to a list of public investments. PPP projects are also taken from this list

After ‘pre-feasibility’ or strategic options analysis. For example, in the Republic of Korea a potential PPP is identified as such after pre-feasibility analysis, and detailed project appraisal (such as technical feasibility studies, or cost-benefit analysis) is carried out as part of the PPP appraisal process. A similar approach is followed in South Africa, where PPP implementation is considered as part of an initial ‘needs analysis and options assessment’ of a potential public investment project.

In any case, well-defined PPP processes typically mirror public investment management processes—for example, requiring approvals by the same bodies, as described further in Section 2.3.3: *Institutional Responsibilities: Review and Approval*.

Source: Irwin & Mokdad paper on managing Contingent Liabilities (for Chile and Australia)[#162]; Public–Private Partnership Infrastructure Projects: Case Studies from the Republic of Korea [#171, page 63]; **South Africa PPP manual** [#219, Module 4, pages 1-13]

To support this screening process, many governments introduce criteria or checklists for PPP potential, against which projects can be compared. Box 3.2: *PPP Potential Screening Factors in South Africa* provides an example of such a checklist, from the **South Africa PPP Manual** [#219]. Similar criteria may be also used for more detailed appraisal, as described in Section 3.2.3: *Assessing Value for Money* below—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 3.2: 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 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: 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 [#219, Module 4, page 13].

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** [#143] includes a ‘suitability filter’ that guides the user to consider the factors described in Box 3.2: *PPP Potential Screening Factors in South Africa*, 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** [#55, 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** [#54]. 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
- The **Government of Hong Kong’s Guide to PPPs** [#131, 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.

While identifying PPPs among the sector’s priority investment projects is typically the responsibility of the relevant ministry, department, or agency, under new PPP programs sector agencies often need support to overcome initial unfamiliarity or reluctance to adopt PPPs. This can be among the roles of a central PPP unit, as described in Section 2.3.4: *Dedicated PPP Units*. Developing a PPP and running a PPP transaction is typically more expensive than the equivalent process for a traditional public investment project, which can also deter agencies from identifying PPPs. Additional funding for PPP development can help level this playing ground. For example, the India Infrastructure Project Development Fund [#139] was established as a revolving fund, and can fund up to 75 percent of PPP project development expenses.

The outcome of this screening process is 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. The Chilean PPP Unit, Coordinación de Concesiones de

Obra Pública, shares all relevant information on their project pipeline on their website. **Farquharson et al** describes the advantages of defining the ‘investment framework’ for a PPP program—including the PPP pipeline, and the complementary other planned infrastructure investments [#95, pages 21-22].

3.1.3 Building an Initial PPP Pipeline

In countries with relatively new PPP programs, project selection 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: *Screening for PPP Potential*. In this context, Governments may also take into consideration additional criteria in deciding which potential PPP projects to develop first. Often at this stage the priority is to build experience and momentum in the PPP program by achieving project successes in a relatively short timeframe.

Several factors may feed into this process. For example, the **Philippines PPP Center** 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 also describes how the Authority initially prioritized PPP projects that were most ready to go to market, as well as ensuring that these corresponded with overall policy priorities (such as brownfield school PPPs).

Key References: Identifying Candidate Projects	
Reference	Description
India, Ministry of Finance (2011) <i>PPP Toolkit for Improving PPP Decision-Making Processes</i> , New Delhi	Module 2: Work through the PPP process, Phase 1: Identification provides extensive guidance on identifying PPP projects
Colombia, Ministerio de Hacienda y Crédito Público (2010) <i>Manual de Procesos y Procedimientos para la ejecución de Asociación Público Asociaciones Público-Privadas</i> , Bogotá	The <i>Process and Procedures Manual for PPP Projects</i> 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
South Africa, National Treasury (2004) <i>Public Private Partnership Manual Module 4: PPP Feasibility Study</i> , Johannesburg	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”

India, Ministry of Finance (2008) <u><i>Scheme and Guidelines for India Infrastructure Project Development Fund</i></u> , New Delhi	Describes the rationale for establishing the IIPDF, to overcome barriers to PPP project identification, and the structure and operational arrangements for the fund.
Perú, Ministerio de Economía y Finanzas, <u><i>Pautas para la Identificación, formulación y evaluación social de proyectos de inversión pública, a nivel de perfil</i></u> , Lima	Module 2: Identification within the <i>Guidelines for the Identification, Formulation, and Social Evaluation of Public Investment Projects</i> sets out the “gap analysis” approach to identifying investment needs and projects.
Asian Development Bank (2008) <u><i>Public-Private Partnership (PPP) Handbook</i></u> , Manila, Philippines	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
Colombia, Ministerio de Hacienda y Crédito Público (2010) <u><i>Análisis de Elegibilidad para la Preselección de Proyectos de APP</i></u> , Bogotá	The <i>Eligibility Analysis for Pre-selection of PPP Projects</i> 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
Hong Kong Efficiency Unit (2008) <u><i>An Introductory Guide to Public Private Partnerships</i></u> (2 nd ed.), Hong Kong, China	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
Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <u><i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i></u> , World Bank/PPIAF	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 proposed PPP project is a good investment decision. As Box 3.3: *PPP Project Appraisal Criteria* sets out, appraisal criteria typically 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 3.3: 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 the procurement mode. 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. This appraisal may be carried out prior to identifying the project as a possible PPP, or as part of the PPP development process

- **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.

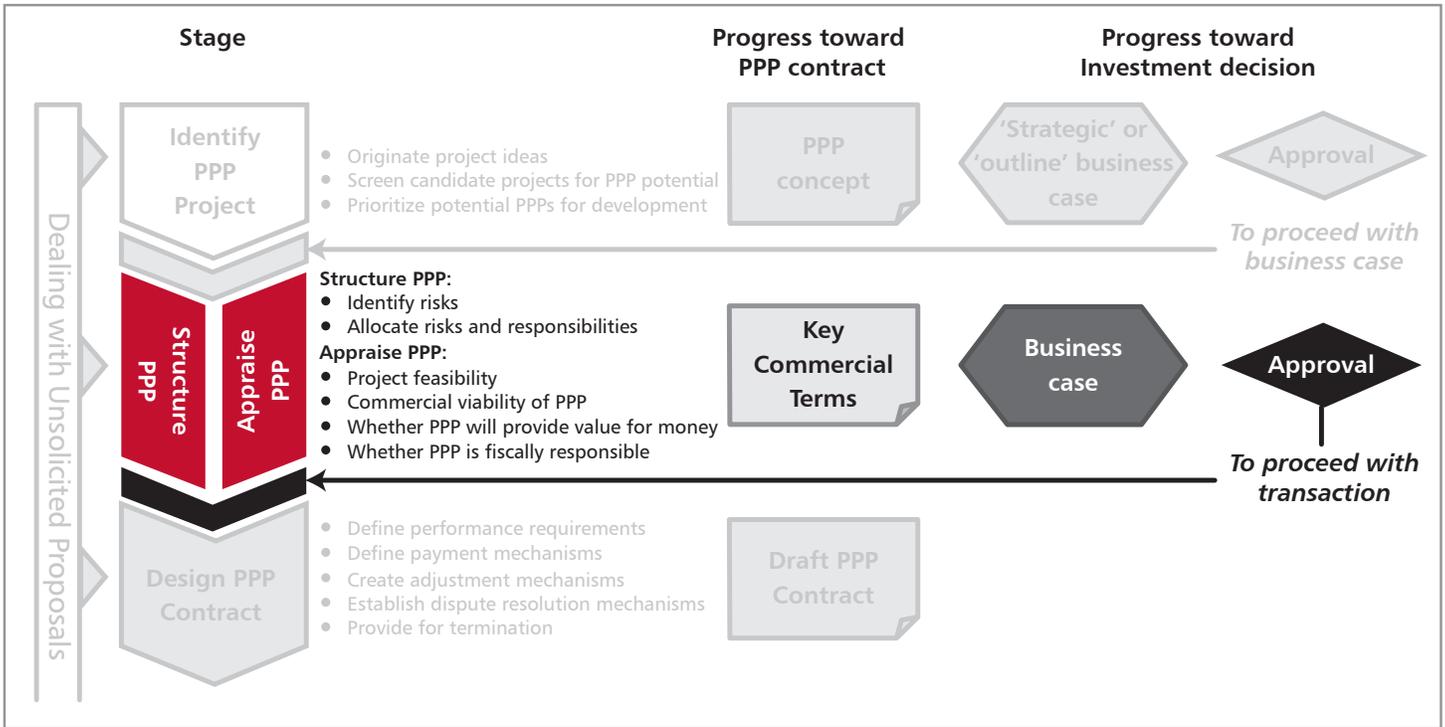
These criteria (with some variations) are described in more detail in “Public-Sector Investment Decision” chapter in **Yescombe’s book on PPPs** [#295, Chapter 5], “Selecting PPP projects” in **Farquharson et al** [#95, Chapter 4], and “Project identification” chapter in the **EPEC “Guide to Guidance”** [#83, Chapter 1].

This Section describes how PPP practitioners can assess a proposed PPP against each of the criteria described in Box 3.3: *PPP Project Appraisal Criteria*; Section 3.2.1: *Assessing Project Feasibility and Economic Viability*; Section 3.2.2: *Assessing Commercial Viability*; and Section 3.2.3: *Assessing Value for Money*.

Figure 3.3: *Appraise PPP Projects* 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 3.1: *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 3.3: *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 3.3: 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.

This assessment may take place prior to ever considering a project as a PPP, as described in Section 3.1: *Identifying PPP Projects*. In other cases it may be undertaken as part of the PPP appraisal process. Either way, the project feasibility and economic viability analysis for a PPP should typically be no different to that for any other major public investment project. This section therefore describes such analysis 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 [\[#75\]](#).

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 **Chile** [\[#47\]](#), **Colombia** [\[#54\]](#), **Germany** [\[#111\]](#), **Peru** [\[#201\]](#), **Philippines** [\[#204\]](#), and the **United Kingdom** [\[#238\]](#) 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. The Reference List at the end of this section provides a selection, with examples of

government guidance material, as well as resources from international institutions, and textbooks. The **British Green Book on appraisal** [#238] states as the main purpose of appraisal guaranteeing that no project, program, or policy is adopted without answering two major questions: 'Are there better ways to achieve this objective?', and 'Are there better uses for these resources?'

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 defined specifically for PPP projects. Either way, the content of the appraisal is typically the same. 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 [#205]. The same process is generally required for PPP projects
- In **Chile**, the 2010 Concessions Law 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 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.

Common challenges in project appraisal—such as optimism bias—also apply when assessing PPPs (see Section 1.3.2 *Poor Planning and Project Selection*), and should be addressed. The **United Kingdom Treasury** has published **guidance material** on overcoming optimism bias.

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 developing the PPP financial model and commercial and fiscal viability analysis, as well as any quantitative value for money analysis. 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 also provide initial inputs to the financial modeling, and value for money 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** [#8, pages 17-18]

gives a brief overview of typical financial analysis of a PPP. **Yescombe’s chapter on financial structuring** [#295] 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 2.4.1: *Assessing Fiscal Implications of a PPP Project*.

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 to potential investors the main parameters of the project (typically the project concept and initial structure, developed during the structuring phase described in Section 3.3: *Structuring PPP Projects*, for questions and comments. The following resources provide more guidance on market sounding:

- **Farquharson et al’s chapter on managing the interface with the private sector** [#95, Chapter 8], which includes ‘top 10 tips’ for a successful market-sounding exercise
- **4Ps paper on ‘soft market testing’** [#229], 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** [#121, pages 409-411], which describes a market sounding exercise for a hypothetical example hospital PPP project
- **Singapore’s PPP Handbook** [#216, 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 transaction advisors. Experienced transaction advisors 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 result in market feedback that is more honest and specific than an inexperienced government agency would be able to elicit on its own. Where local experienced transaction advisors are not available, governments may perhaps hire advisory services from multilateral financial organizations, such as IFC PPP advisory services and support provided by the Multilateral Investment Fund (MIF)’s PPP advisory facility.

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. Many successful PPP programs require an assessment of whether a PPP is likely to offer better value for the public than conventional public procurement—often called ‘value for money analysis’. 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** [#237] described how value for money should be assessed at both the program and project levels—but that methodology was later considered biased and recalled by government.

Value for money (VFM) analysis typically involves a combination of qualitative and quantitative approaches. **Qualitative VFM analysis** involves sense-checking the rationale for using PPP—that is, asking whether a proposed project is of a type likely to be suitable for private financing, and whether 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. This often takes place at a relatively early stage of PPP development—as such, qualitative VFM analysis may constitute part of the PPP ‘Screening’ described in Section 3.1.2: *Screening for PPP Potential*.

Some PPP programs also require **quantitative assessment** of value for money. This typically involves comparing the chosen PPP option against a ‘Public Sector Comparator’ (PSC)—that is, what the project would look like if delivered through conventional procurement. 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 weigh the expected benefits of a PPP over conventional procurement against its additional costs.

Value for money analysis—particularly the use of quantitative ‘public sector comparator’ methodologies—has been subject to wide debate. Some question the value and relevance of a PSC approach, which can appear to be more ‘scientific’ than is actually the case, potentially misleading decision-makers; or conversely, may simply come too late in the process to be a genuine input to decision-making. A **World Bank report on Value for Money** [#293] analysis presents evidence on practices from several countries, and on trends regarding the scope of value-for-money analysis and the relative advantages of quantitative and qualitative approaches.

For more discussion on approaches to assessing value for money, and their relative advantages and disadvantages, see also:

- **Farquharson et al’s** section on ‘selecting projects’ [#95, 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** [#119, pages 347-351] includes a section on ‘approaches to value for money’, describing examples of different countries’ approaches
- **The OECD’s publication on PPPs** [#194, 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 **World Bank toolkit for PPP in Roads and Highways** has a section on value for money and the PSC [#282], which describes the logic behind value for money analysis, and how the PSC is used.

The remainder of this section briefly describes and provides further resources for readers on qualitative and quantitative value for money assessment methodologies.

Qualitative value for money assessment

Qualitative VFM analysis typically involves sense-checking the rationale for using PPP—that is, asking whether a proposed project is of a type likely to be suitable for private financing; as well as whether the conditions that are necessary to achieve value for money are in place, as described in **Farquharson et al, [#95, pages 42-43]**. This often takes place at a relatively early stage of PPP development—as such, qualitative VFM analysis may overlap with the ‘PPP Screening’ process described in Section 3.1.2: *Screening for PPP Potential* above—but may be repeated throughout the project development process.

Some jurisdictions have clearly-defined criteria for this analysis. For example:

- The **UK Treasury** has defined criteria for assessing suitability, and unsuitability, for a Private Finance Initiative (PFI—the UK’s PPP model). Suitability criteria include the long-term, predictable need for the service; the ability to allocate risk effectively—including through performance-related payments and ensuring sufficient private capital at risk; the likely ability of the private sector party to manage risk and take responsibility for delivery; presence of stable and adequate policy and institutions; and a competitive bidding market. “Unsuitability” criteria include projects that are either too small or too complicated; sectors where needs are likely to change or there is a risk of obsolescence (for example, PFI projects are no longer used in the ICT sector in the UK); or where the contracting authority is inadequately skilled to manage PPP [#293]
- In **France**, “preliminary analysis” of a PPP includes checking against several criteria under three categories: PPP relevance—for example, appropriateness of an integrated, whole-of-life approach to managing a project; commercial attractiveness; and the potential for optimal risk allocation [#293]
- In the **Commonwealth of Virginia, USA**, assessment of a potential PPP at “high level” and detailed screening stages also considers proposed road projects against specific criteria to determine if the project is delivered under the Public-Private Transportation Act (PPTA)—that is, as a PPP. These criteria include whether a project is sufficiently complex to benefit from private sector innovation; whether a PPP can achieve appropriate risk transfer; and the degree of stakeholder support. The extent to which a project can generate revenues from tolls is also taken into consideration when assessing possible PPP structures. [#293]

The **EPEC Guide to Guidance** also includes a list of key conditions that should be met to have a higher probability of achieving Value for Money [#83, Chapter 1.2.4].

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 as described in **Leigland’s Gridlines article on the PSC [#175]**. 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 3.4: How the *Public Sector Comparator is 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** [#194, 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 3.2.2: *Assessing Commercial Viability*.
- **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 [#14].

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. 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 above.

Leigland's Gridlines article on the PSC [#175, 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** [#119, pages 362-371] describe some of these criticisms in more detail. Given these challenges, **Leigland's Gridlines article** [#175, pages 3-4] also discusses whether and how the PSC approach could make sense in a developing country context.

Box 3.4: 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** [#15, Section 2.3] describes two types of adjustment:

- **Risk adjustments**—one of the main differences between traditional procurement and the PPP approach is that the PPP transfers more 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 traditionally procured project. For example the tax liabilities under the two options may be different. These differences 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 traditional 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** for quantitative PSC assessment was recalled in 2013, being replaced with a mix of qualitative and quantitative assessment
- **South Africa’s PPP Manual** Module on the PPP Feasibility Study includes a detailed description of how to calculate and use the PSC [[#219](#), Module 4, pages 17-49]
- **Colombia’s technical note on PSC analysis** [[#56](#)] 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** [[#215](#)] 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** [[#118](#)] and **Gray, Hall and Pollard** [[#117](#)] both also focus on the choice of discount rate, and its relationship with risk allocation under PPP and traditional procurement. **Partnerships Victoria’s FAQs and Common Problems in PSC Development** [[#21](#)] also touch on these issues, and describe some other common problems.

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

The **World Bank report on Value for Money assessment practices** [#293, pages 23-28] reviews methodological evolution and practices in several governments with significant PPP experience, including the United Kingdom, France, India, Chile, the state of Virginia, and British Columbia, Canada.

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 traditional 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 [#118, 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** [#84] suggests how some of the benefits of PPP—as described in Section 1.3: *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** [#189, pages 6-12] asks practitioners to identify the possible benefits of PPP over traditional public procurement—from among the value drivers as described in Box 1.2: *PPP Value Drivers*—and where possible to assign dollar values to each benefit.

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 may 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 Section 1.3.1). 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, or even worse compensations in the event of early termination (for more on these concepts, see Box 2.7: *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. Section 2.4.2: *Controlling Aggregate 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. A **World Bank note on implementing a framework for managing fiscal commitments from PPPs** [#292] provides an overview of typical types of fiscal commitments to PPP projects, and how these can be assessed.

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 3.5: *Direct Payment Commitments to PPP Projects*.

Box 3.5: 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 3.3: *Structuring PPP Projects*. 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 3.5: *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 3.2.2: *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** [#160, 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. Section 2.4.2: *Controlling Aggregate Exposure to PPPs* 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** [#194, pages 36-46] provides a helpful overview.

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 throughout project structuring (see Section 3.3: *Structuring PPP Projects*) Box 3.6: *Contingent Liabilities Under PPP Projects* describes some types of contingent liability that governments may accept under PPP contracts.

Box 3.6: 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 4: Public Financial Management for PPPs. The EPEC note on State Guarantees in PPPs [#82, 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** [#14, 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 [#161] 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” [#53]
- 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** [#162, Appendix 1] also describes the Chilean methodology in more detail
- **Peru’s Finance Ministry** has also published a methodology for valuing contingent liabilities under PPPs—available on the Ministry’s website section on managing contingent liabilities [#200]

Defining and publishing a methodology for valuing contingent liabilities from PPPs is only part of the solution—implementing such methodologies in practice can be demanding. Governments may need to

strike a balance between building capacity in risk analysis, and adopting sufficiently straightforward and simple approaches to this assessment that can be implemented in practice.

Having estimated the cost of contingent liabilities, the government can assess whether they are affordable given fiscal constraints. For example, as described in Section 2.4.2: *Controlling Aggregate Exposure to PPPs*, 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** [#82] also provides a helpful overview of different approaches to managing the fiscal implications of PPP contingent liabilities.

Key References: PPP Project Appraisal	
Reference	Description
Yescombe, E. R. (2013) <i>Public-Private Partnerships: Principles of Policy and Finance</i>, 2nd edition, Elsevier Science, Oxford	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
PPP Project Appraisal Overviews	
Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i>, World Bank/PPIAF	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
European PPP Expertise Centre (2011) <i>A Guide to Guidance: Sourcebook for PPPs</i> (Version 2) Luxembourg	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
South Africa, National Treasury (2004) <i>PPP Manual. Module 4: PPP Feasibility Study</i>, Johannesburg	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	
Equator Principles Association Secretariat (2011) <i>Equator Principles</i>, Essex, UK, 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
National Planning Department of Colombia (2006) <i>Metodología general ajustada para la identificación, preparación y evaluación de proyectos de inversión</i>, Bogotá	Pages 79-84 in the <i>General Adjusted Methodology for the Identification, Preparation, and Evaluation of Projects</i> 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
Chile, Ministerio de Planificación (2006) <i>Metodología de General de Preparación y Evaluación de Proyectos</i>. Santiago	The <i>General Methodology for Preparing and Evaluating Public Investment Projects</i> 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
Perú, Ministerio de Economía y Finanzas, <i>Pautas para la Identificación, formulación y evaluación social de proyectos de inversión pública, a nivel de perfil</i>. Lima	The <i>Guidelines for the Identification, Formulation, and Social Evaluation of Public Investment Projects</i> provides guidelines for identifying public investment projects, and for carrying out detailed feasibility studies and economic viability analysis
Philippines, National Economic Development Authority (2005) <i>Reference Manual on Project Development and Evaluation</i> (Volume 1) Manila	Provides detailed guidance on feasibility and economic evaluation analysis required for all public investment projects

United Kingdom Her Majesty's Treasury (2011) <i>The Green Book: Appraisal and Evaluation in Central Government</i>, London	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
European Commission (2009) <i>Sourcebook 2 – Techniques & Tools: Evaluative Alternatives</i>, Brussels	Online sourcebook covering all aspects of socio-economic evaluation as part of their Resource for the Evaluation of Socio-Economic Development. 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
Belli, Anderson, Barnum, Dixon & Tan (1998) <i>Handbook on Economic Analysis of Investment Operations</i>, Washington, DC: Operational Core Services Network Learning and Leadership Center	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 & Weimer (2011) <i>Cost Benefit Analysis: Concepts and Practice</i> (4th ed.) Upper Saddle River, NJ: Prentice Hall	Comprehensive reference textbook on cost-benefit analysis issues
Asian Development Bank (1999) <i>Handbook for Economic Analysis of Water Supply Projects</i>, Manila	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
Hine, J. (2008) <i>Economics of Road Investment</i> [slides] World Bank	This presentation provides an overview of specific issues in cost-benefit analysis for road sector projects
Khatib, H. (2003) <i>Economic Evaluation of Projects in the Electricity Supply Industry</i>, Stevenage, UK: The Institution of Engineering and Technology	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
European Investment Bank (2005) <i>RAILPAG: Railway Project Appraisal Guidelines</i>. Luxembourg	Chapter 4, Financial and economic analyses. Includes guidance for the development of the financial and cost-benefit analyses and sector relevant aspects.

Commercial Viability Analysis

Asian Development Bank (2008) <i>PPP Handbook</i>, Manila, Philippines	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
Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i>, World Bank/PPIAF	Chapter 8: Managing the Initial Interface with the Private Sector describes how to prepare and carry out a market sounding exercise
4ps Public Private Partnerships Programme (2002) <i>4ps Guidance and Case Study</i>, London	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
Darrin Grimsey & Mervyn K. Lewis (2009) ‘Developing a Framework for Procurement Options Analysis’, in Akintoye & Beck (eds.) <i>Policy, Finance and Management for Public-Private Partnerships</i>, Chichester, UK: Wiley-Blackwell	Describes the advantages of market sounding and sets out a market sounding exercise for a hypothetical example hospital PPP project
Singapore, Ministry of Finance (2004) <i>Public Private Partnership Handbook</i> (Version 1)	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	
United Kingdom, Her Majesty's Treasury (2011) <u><i>Quantitative Assessment User Guide</i></u> , London; and (2011) <u><i>Value for Money Quantitative Evaluation Spreadsheet</i></u> , London	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
Darrin Grimsey & Mervyn K. Lewis (2005) <u><i>Are Public Private Partnerships value for money?: Evaluating alternative approaches and comparing academic and practitioner views</i></u> , <i>Accounting Forum</i> 29(4) 345-378	Describes approaches to assessing value for money in PPPs, and sets out in detail the PSC approach and its pros and cons
Organization for Economic Cooperation and Development (2008) <u><i>Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money</i></u> , Paris	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
World Bank (2009) <u><i>Toolkit for Public Private Partnerships in Roads and Highways</i></u>	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
United Kingdom, Her Majesty's Treasury (2006) <u><i>Value for Money Assessment Guidance</i></u> , London	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
Leigland, J. (2006) <u><i>Is the public sector comparator right for developing countries? Appraising public-private projects in infrastructure</i></u> . <i>Gridlines</i> , 4	Summarizes common criticisms of PSC analysis, and describes whether and how using PSC analysis may make sense in developing country contexts
Australia, Infrastructure Australia (2008) <u><i>National Public-Private Partnership Guidelines: Volume 4: Public Sector Comparator Guidance</i></u> , Canberra	Provides detailed guidance on calculating the public sector comparator, and a worked example, including extracts from the excel model used
Colombia, Ministerio de Hacienda y Crédito Público de Colombia (2010) Nota Técnica: <u><i>Comparador Público-Privado para la selección de proyectos APP</i></u> . Bogotá	Introduces the PSC methodology, explains all the analytic steps, and provides a worked example
Chris Shugart (2006) <u><i>Quantitative Methods for the Preparation, Appraisal, and Management of PPI Projects in Sub-Saharan Africa: Final Report</i></u> , Gaborone, Botswana: New Partnership for Africa's Development	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
Darrin Grimsey & Mervyn K. Lewis (2004) <u><i>Discount debates: Rates, risk, uncertainty and value for money in PPPs</i></u> , <i>Public Infrastructure Bulletin</i> , 1(3) 1-5	Describes the implications of the choice of discount rate in comparing PPP and public procurement, and the relationship between discount rates and risk allocation
Gray, S., Hall, J., & Pollard, G. S. (2010) <u><i>The Public Private Partnership Paradox</i></u> , unpublished manuscript	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
Australia, Partnerships Victoria (2009) <u><i>Annexure 6: Frequently asked questions and common problems in Public Sector Comparator (PSC) development</i></u> , Melbourne	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
European PPP Expertise Centre (2011) <u><i>The Non-Financial Benefits of PPPs: A Review of Concepts and Methodology</i></u> , Luxembourg	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

New Zealand, National Infrastructure Unit (2009) <u><i>Guidance for Public Private Partnerships in New Zealand</i></u>, Auckland	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
Fiscal Analysis	
Tim Irwin (2003) <u><i>Public Money for Private Infrastructure: Deciding When to Offer Guarantees, Output-Based Subsidies, and Other Fiscal Support</i></u>, 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
Organization for Economic Cooperation and Development (2008) <u><i>Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money</i></u>, Paris	Chapter 3 on “the economics of Public-Private Partnership: is PPP the best alternative” describes how the affordability of a PPP can be assessed
European PPP Expertise Centre (2011) <u><i>State Guarantees in PPPs: A Guide to Better Evaluation, Design, Implementation, and Management</i></u>, Luxembourg	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
Australia, Infrastructure Australia (2008) <u><i>National Public-Private Partnership Guidelines: Public Sector Comparator Guidance (Vol. 4)</i></u> Canberra	Section 16: Identifying, allocating, and evaluating risk describes in detail different methodologies for valuing risk (and contingent liabilities) in PPPs
Tim Irwin (2007) <u><i>Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects</i></u>, 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
Colombia, Ministerio de Hacienda y Crédito Público (2005) <u><i>Pasivos Contingentes</i></u>, Bogotá	Presentation by the Ministry of Finance of Colombia on the conceptual and legal frameworks, and methodologies used in Colombia for managing contingent liabilities
Chile, Ministerio de Hacienda (2010) <u><i>Informe de Pasivos Contingentes 2010</i></u>, Santiago	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)
Tim Irwin & Tanya Mokdad (2010) <u><i>Managing Contingent Liabilities in Public-Private Partnerships: Practice in Australia, Chile, and South Africa</i></u>, World Bank	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
Perú, Ministerio de Economía y Finanzas, <u><i>Pasivos Contingentes</i></u>, Lima	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. Project structuring 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: *Identifying PPP Projects*, before committing the resources needed to develop the draft PPP contract in detail.

Figure 3.4: Structuring PPP Projects

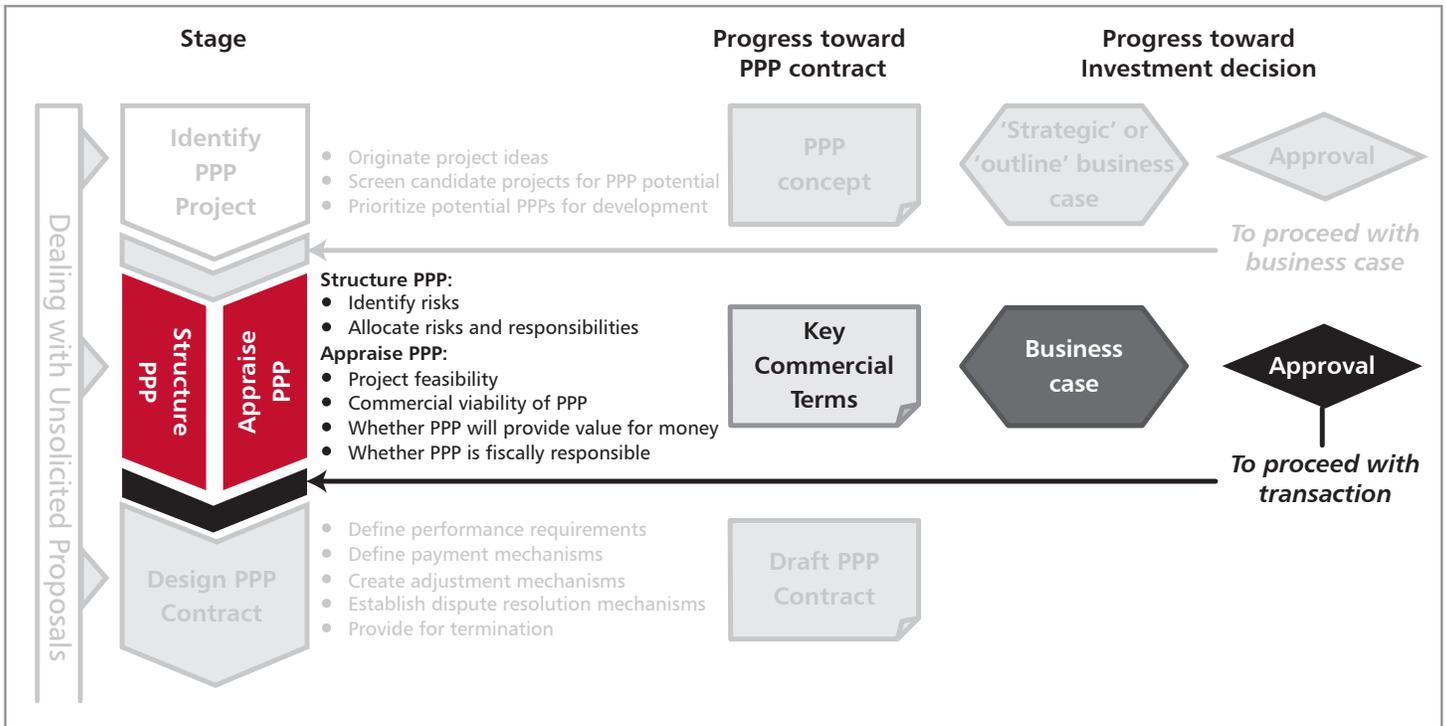


Figure 3.4: *Structuring PPP Projects* shows how PPP structuring—to the level of key commercial terms—fits into the overall development process. As described in the introduction to this Module, PPP structuring and PPP appraisal are in practice parallel and iterative processes. Information from the feasibility 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 3.3: *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 is expected to 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 Box 1.2: *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 (3.3.1: *Identifying Risks*) then describing how risks are allocated (3.3.2 *Allocating Risks*) 3.3.3 *Translating Risk Allocation into Contract Structure* 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 [[#161](#)].

PPP risks vary depending on the country where the project is implemented, 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 3.7: PPP Risk Categories.

Box 3.7: 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
- **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**—uninsurable 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 [#295], and Delmon’s chapter on risk allocation [#58, 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: *Allocating Risks*. 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 that implementing agencies should 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** [#14, 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** [#7, 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** [#22, 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** [#95, Appendix B] provides 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** [#159, 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. Box 3.8: Allocating Land Acquisition Risk—commonly a significant risk for PPP projects.

Box 3.8: Allocating Land Acquisition Risk

Land acquisition can be one of the most challenging aspects of developing a PPP project—delays in obtaining land have created significant hurdles or even blocked some promising PPP projects. There are many options for dealing with this risk associated with land acquisition delays or difficulties. Some governments adopted a policy of freeing land before launching a project to the market, thereby accepting and taking this risk out of the contractual equation—such as for transport projects in India. Others allocate to the private party the responsibility for identifying the plots of land that will be needed for the project, and for undertaking the necessary processes to acquire that land. Still others prepare carefully the land acquisition process, detailing the need for land and the identification of owners, but then transfer to the private partner the responsibility for actually obtaining the land. The best option may depend on circumstances—not least the prevailing legislation regarding compulsory acquisition of land.

India’s Toolkit for Highways, in its Module 3: Tools and Resources, presents several good and bad examples of how to handle land acquisition. **Jonathan Lindsay’s paper** [#176] discusses compulsory land acquisition in detail.

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** [#161, 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.

As described in the **OECD's publication on risk sharing and value for money in PPPs** [#194, 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. For example, **Ng and Loosemore's article on risk allocation in PPPs** [#190] 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 [#31] assesses how risks have been allocated in PFI projects in practice, to identify risk allocation preferences. An **IDB review of the Spanish PPP experience** [#28] includes several examples of risk allocation used in different types of projects, from roads to hospitals.

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 [#161,

pages 63-65] the cost of doing so would be high, and likely 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
- **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** [#72]. 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, the remainder of the project risk remains with the government—as described by **lossa et al** [#159, page 25].

A combination of these limitations can mean that country characteristics affect the possibilities of risk transfer. **Ke et al's study of risk allocation** [#168] demonstrates this, in their comparison of risk allocation for projects in China, Greece, and the United Kingdom.

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** [#95, Appendix B] provides an example 'risk register' (or matrix) for a PPP project.

Some 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. Risk allocation matrices should be checked again prior to signing the contract to review the responsibilities of each party before it is legally binding. This final review could also serve as an additional gate-keeping mechanism.

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 [#15], which describe in detail how risks and responsibilities will be allocated

- **Hong Kong’s Introductory Guide to PPPs** [#131, 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** [#35, Annex 2] provides an example of a risk matrix for a PPP infrastructure project
- **South Africa’s PPP Manual**, Module 4: PPP Feasibility Study [#219, 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** [#273, 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 Section 1.1: *What is a PPP: Defining ‘Public-Private Partnership’*). 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 Section 1.1: *What is a PPP: Defining ‘Public-Private Partnership’*) 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** [#161, 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** [#159, 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** [#143] Module 1: PPP Background has a section on 'PPP model 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
Tim Irwin (2007) <i>Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects</i>, 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
Yescombe, E. R. (2013) <i>Public-Private Partnerships: Principles of Policy and Finance</i>, 2nd edition, Elsevier Science, Oxford	Chapter 14 on risk evaluation and transfer describes types of risk that are common to PPP projects
Jeff Delmon (2009) <i>Private Sector Investment in Infrastructure: Project Finance, PPP Projects and Risks</i> (2nd ed) London: Kluwer Law International	Chapter 5 on risk allocation goes into more detail on PPP risk categories

<p>Australia, Infrastructure Australia (2008) <u><i>National Public-Private Partnership Guidelines: Public Sector Comparator Guidance</i></u> (Vol. 4) Canberra</p>	<p>Section 16: Identifying, allocating, and evaluating risk describes in detail different methodologies for quantitatively valuing risk in PPPs</p>
<p>Asian Development Bank (2002) <u><i>Handbook for Integrating Risk Analysis in the Economic Analysis of Projects</i></u>, Manila, Philippines</p>	<p>Chapter 2 describes quantitative techniques for assessing risk</p>
<p>Australia, Victoria Managed Insurance Authority (2010) <u><i>Risk Management: Developing and Implementing a Risk Management Framework</i></u>, Melbourne</p>	<p>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</p>
<p>Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <u><i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i></u>, World Bank/PPIAF</p>	<p>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</p>
<p>Iossa, E., Spagnolo, G., and Vellez, M. (2007) <u><i>Contract Design in Public-Private Partnerships</i></u>, World Bank</p>	<p>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</p>
<p>Organization for Economic Cooperation and Development (2008) <u><i>Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money</i></u>, Paris</p>	<p>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</p>
<p>Ng & Loosemore (2006) <u><i>Risk allocation in the private provision of public infrastructure</i></u>, <i>International Journal of Project Management</i>, 25(1) 66-77</p>	<p>Describes classification and allocation of risk in PPP projects, and provides a case study of risk allocation for a railway PPP project in Australia</p>
<p>Bing, Akintoye, Edwards & Hardcastle (2005) <u><i>The allocation of risk in PPP/PFI construction projects in the UK</i></u>, <i>International Journal of Project Management</i>, 23(1) 25-35</p>	<p>Assesses how risks have been allocated in practice in PPP projects in the United Kingdom</p>
<p>Banco Interamericano de Desarrollo (2009) <u><i>Experiencia española en Concesiones y Asociaciones Público-Privadas para el desarrollo de infraestructuras</i></u>, Washington, D.C.</p>	<p>Review of the Spanish PPP experience. Includes a description of typical project structure divided by sectors and includes multiple examples of successful PPP projects.</p>
<p>Ke, Y., Wang, S., & Chan, A. P (2010) <u><i>Risk Allocation in PPP Infrastructure Projects: Comparative Study</i></u>, <i>Journal of Infrastructure Systems</i>, 16(4) 343-351</p>	<p>Compares risk allocation for PPP projects in China, Greece, and the United Kingdom, exploring how country characteristics affect the risk allocation that can be achieved in practice</p>
<p>Australia, Infrastructure Australia (2008) <u><i>National Public Private Partnership Guidelines: Commercial Principles for Social Infrastructure</i></u> (Vol. 3), and (2011) <u><i>National Public Private Partnership Guidelines, Commercial Principles for Economic Infrastructure</i></u> (Vol. 7), and (2011) <u><i>National Public Private Partnership Guidelines: Roadmap for applying the Commercial Principles</i></u>, Canberra</p>	<p>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</p>
<p>Hong Kong Efficiency Unit (2008) <u><i>An Introductory Guide to Public Private Partnerships</i></u> (2nd ed), Hong Kong, China</p>	<p>Section 6 provides guidance on managing risk. Annex E provides an example risk allocation matrix for a water treatment plant</p>
<p>Brasil, Governo do Rio de Janeiro (2008) <u><i>Manual de Parcerias Público-Privadas</i></u>, Rio de Janeiro</p>	<p>Annex 2 provides an example of a typical risk matrix</p>
<p>South Africa, National Treasury (2004) <u><i>PPP Manual Module 4: PPP Feasibility Study</i></u>, Johannesburg</p>	<p>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.</p>
<p>World Bank (2006) <u><i>Approaches to Private Sector Participation in Water Services: A Toolkit</i></u></p>	<p>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</p>

India, Ministry of Finance (2011) <i>PPP Toolkit for Improving PPP Decision-Making Processes</i>, New Delhi	Module 1: PPP Background has a section on “PPP modal variants”, which describes typical risk allocations under different PPP contract types.
España, Ministerio de Economía y Hacienda (2011) <i>Texto Refundido de la Ley de Contratos del Sector Público</i>, <i>Boletín Oficial del Estado</i>, 276, I, 117729-117914	The Spanish Procurement law regulates the public procurement PPP contracts that can be used in Spain. Some of them are partially structured by the law and some of them have a flexible risk allocation.
Banco Interamericano de Desarrollo (2009) <i>Experiencia Chilena en Concesiones y Asociaciones Público-Privadas para el desarrollo de Infraestructura y la Provisión de Servicios Públicos</i>, Washington, D.C.	Review of the Chilean PPP experience. Includes a description of typical project structure divided by sectors and includes multiple examples of successful PPP projects.

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 3.9: *What is the ‘PPP Contract’*.

Box 3.9: What is the ‘PPP Contract’

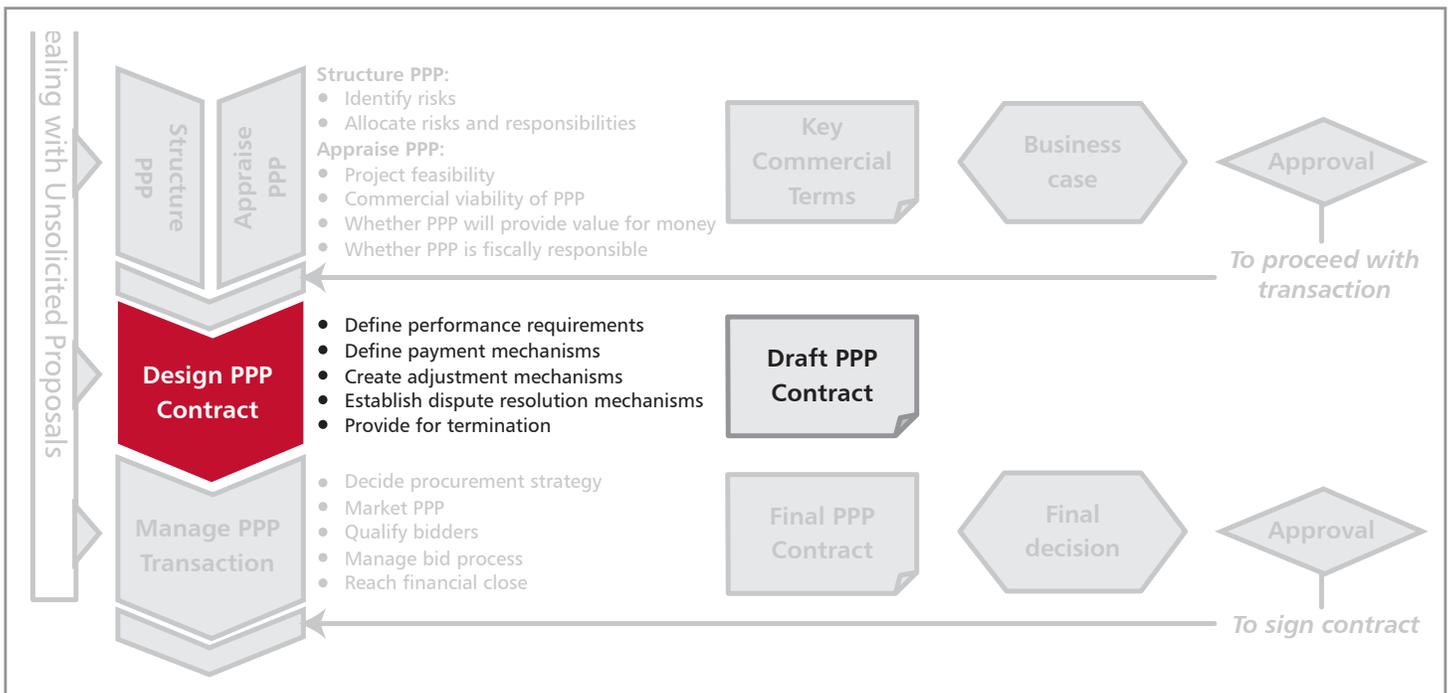
This section uses the ‘PPP contract’ to mean the contractual documents that govern the relationship between the public and private parties to a PPP. In practice, the ‘PPP contract’ may comprise more than one document. For example, a PPP to design, build, finance, operate, and maintain a new power plant, 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 Section 1.4: *How PPPs Are Financed* for more on the PPP contractual structure). The PPP contract may not be effective until these other contractual agreements are in place. The **EPEC Guide to Guidance** [#83, 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** [#282] section on contracts describes the range of contractual agreements typically involved for different types of PPP.

As shown in Figure 3.5: *PPP Contract Design Stage*, 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 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 cases, 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. **Australia National PPP Guidelines Roadmap** [#16] provides an overview of PPP contract development and how it progresses at each stage of implementing the PPP.

Figure 3.5: 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*. Where possible, involving the future contract manager in designing or reviewing the PPP contract can help ensure that change management processes are implementable in practice.

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 five 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 3.1: *Examples of Standardized PPP Contracts and Contract Clauses* provides some examples. Others incorporate some elements in overall legislation to govern all PPP contracts, as described in 2.2: *PPP Legal Framework*. For example, in Chile the dispute resolution mechanism is established in the Concessions Law.

A helpful complement to the guidance in this section is the **World Bank's online PPP Infrastructure Resource Center**, at the following link: [#285](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.

Table 3.1: Examples of Standardized PPP Contracts and Contract Clauses

Jurisdiction	Standard	Links
Australia	Guidelines issued by Infrastructure Australia provide standard commercial principles for social and economic infrastructure PPPs respectively, set out why and how key risks and responsibilities should be allocated in the contract	Australia, Infrastructure Australia (2008) <i>National PPP Guidelines: Commercial Principles for Social Infrastructure</i> (Vol. 3), Canberra: http://www.infrastructureaustralia.gov.au/public_private/files/National_PPP_Guidelines_Vol_3_Commercial_Principles_Social_Infrastructure_Dec_08.pdf Australia, Infrastructure Australia (2011) <i>National PPP Guidelines: Commercial Principles for Economic Infrastructure</i> (Vol. 7), Canberra: http://www.infrastructureaustralia.gov.au/public_private/files/Vol_7_Commercial_Principles_Economic_Infrastructure_Feb_2011.pdf
India	Descriptions of model agreements for PPP in a range of transport sectors	India, Secretariat for Infrastructure (2011) <i>Model Concession Agreement</i> . New Delhi: http://infrastructure.gov.in/mca.htm
Netherlands	Standard PPP contract for DBFM in buildings and DBFMO in infrastructure	Netherlands, Ministry of Finance.(n.d.) <i>Publications</i> . The Hague http://www.ppsbijhetrijk.nl/Publicaties?publicatiesoort=Modeldocument (Dutch and English versions)
New Zealand	Draft standard PPP contract	New Zealand, National Infrastructure Unit (2010) <i>Draft Public Private Partnership (PPP) Standard Contract – Version 2</i> . Wellington: http://www.infrastructure.govt.nz/publications/draftpppstandardcontract
Pakistan	Standardized PPP Provisions	Pakistan, Infrastructure Project Development Facility (2007) <i>Standardised PPP Provisions</i> . Islamabad: 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. The PPP Center is currently developing standardized terms for broader application	Philippines, Public-Private Partnership Center (2011) <i>PEGR Sample Contracts</i> . Manila: http://ppp.gov.ph/?page_id=671
South Africa	Standardized PPP provisions published alongside the South Africa PPP Manual	South Africa, National Treasury (2004) <i>Standardised PPP Provisions</i> , Johannesburg: 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	United Kingdom, Her Majesty’s Treasury <i>Standardised contracts</i> , London: 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 **Farquharson et al** [#95, page 34]. For more guidance and examples on the differences between output and input specification, see **Hong Kong’s guidance on managing outsourcing contracts** [#130, pages 32-33], and **Guidance on output specifications from the United Kingdom’s Ministry of Defence** [#249], 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.

The PPP contract should set out the following:

- **Clear performance targets or output requirements.** Farquharson et al [#95, 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
- **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 [#159, 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 [#234, chapter 4], describing when and how liquidated damages or performance bonds may be used
 - Specifying payment deductions for poor performance (or bonuses), built into the payment mechanism (see Section 3.4.2: *Payment Mechanism*)
 - 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. As described by Iossa et al [#159, pages 81-83], the intention is typically to enable step-in to deal with problems threatening 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** [#169, pages 70-74] describes issues and provides examples of performance targets in the context of concession contracts for utilities
- **4Ps paper on the United Kingdom's PFI experience** [#228, 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
- The **South Africa PPP Manual** Module 6 on 'managing the PPP agreement' [#219, 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’ [[#219](#), Standardized PPP Provisions, pages 121-133]

- The **Scottish Government** has produced standard output-based performance requirements for PFI schools [[#257](#)], which also describe some key issues in defining performance requirements
- The **United States Department of Transportation’s Key Performance Indicators in Public-Private Partnerships** [[#268](#)] reviews the indicators used in several countries and their efficiency.

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 important means for creating incentive and allocating risk in the PPP contract, as described in the **EPEC Guide to Guidance** [[#83](#), page 24].

Iossa et al [[#159](#), 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:
 - Usage-based—for example, shadow tolls or output-based subsidies
 - Based on availability—that is, conditional on the availability of an asset or service to the specified quality
 - Upfront subsidies based on achieving certain milestones.
- **Bonuses and penalties, or fines**—deductions on payments to the private party, or penalties or fines 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, which should be fully defined in the contract—including specifying the timing and mechanism for making the payments in practice. Key considerations in each case are described briefly in turn below, with references for further information.

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. 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 [#169, 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** [#273, pages 108-118] also discusses tariff indexation and resets as a risk allocation mechanism for user-pays PPPs.

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 [#288], 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.

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 either borne by the private sector or 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** [#160] describes some of the trade-offs between different types of subsidies to 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** [#83, page 24] provides a helpful overview of how to define the payment mechanism for government-pays PPPs. **Yescombe** [#295] provides more detailed description of the different options and their implications for risk allocation and bankability. A **note developed by the Scottish Government** [#258] describes experience with defining and implementing payment mechanisms in PPPs.

Defining bonuses and penalties

Under both government- and user-pays PPPs, bonuses and penalties can be tied to particular outcomes. Under government-pays contracts, bonuses and penalties are typically implemented adjustments to regular payments. Governments may also provide bonuses or charge penalties under user-pays contracts.

Iossa et al [#159, pages 46-47] provide an overview of performance-based payments. The **Scottish Government note on designing payment mechanisms for PPPs** [#258, 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 3.1: *Examples of Standardized PPP Contracts and Contract Clauses* 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 [#234, 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. For example, a new toll highway faces obvious risks such as fluctuations in demand, but also less-obvious risks such as demand to provide more interchanges in the future, or install new traffic management technologies. More complex PPPs, such as water concession contracts, are even more exposed to unpredictable changes. Network assets may last more or less time than assumed. Demands for changes in treatment and distribution technologies may flow from new health research; while urban growth may create large investment demands, sometimes in unpredicted locations.

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. Such adjustment mechanisms typically aim to create a clear process and boundaries for change.

The concept of 'financial equilibrium', common in civil law systems, provides a broad mechanism for dealing with several different types of change, as described below. Other mechanisms are more specific—such as mechanisms for changes to service requirements, changes to tariff formulae, other cost adjustments in response to market changes, or dealing with refinancing gains, also described in turn below.

As described in the **EPEC Guide to Guidance** [#83, 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 Structures*). 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.

Financial equilibrium clauses

Civil law systems commonly espouse a concept of 'financial equilibrium' in contracting, which may be established in general administrative law, or defined in more detail in the PPP context in PPP-specific law

or a particular contract. Financial equilibrium provisions entitle an operator to changes in the key financial terms of the contract to compensate for certain types of exogenous event that may otherwise impact returns. Adjustments are based on a mutually agreed financial model that is maintained over the lifetime of the contract. Three causes of unexpected changes that merit financial equilibrium are typically defined as *Force Majeure* (major natural disasters or civil disturbances), *factum principis* (government action) and *ius variandi* (unforeseen changes in economic conditions). The **PPP in Infrastructure Resource Center Website** [#286] provides more information and references on financial equilibrium clauses in its section on 'Key Features of Common Law or Civil Law Systems'.

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** [#131, pages 68-71] describes how changes in circumstance can be dealt with. The **South Africa standardized contract provisions** [#219, 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.

Changes to tariff or payment rules or formulae

Tariffs or payments are often specified by formulae, as described in Section 3.4.3: *Adjustment Mechanisms*, 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). Since these processes are analogous to regulatory tariff reviews, regulatory guidance material may be useful. The **World Bank's body of knowledge on infrastructure regulation** [#288] section on price level regulation describes key issues in tariff regulation, and guides readers in accessing a wide range of references.

Market testing and benchmarking operating costs

Some PPP contracts require periodic 'market testing' or benchmarking 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). This approach is most common in PPP contracts in the United Kingdom Private Finance Initiative (PFI) tradition. One objective is that the price charged for the soft services should be kept in line with market conditions, through periodic challenges or benchmarking exercises. The other reason for market testing 'soft' services is that service providers would normally be reluctant to provide a fixed price (with simple inflation indexation) for such services over a long period of time, because the actual costs are likely to get out of line with the indexation.

A United Kingdom Operational Taskforce note provides detailed guidance on benchmarking and market

testing approaches [#232]. The **United Kingdom's Department of Health** has also produced a code of best practice on benchmarking and market testing in hospital PFIs [#252]. This code provides guidance on how to manage the market testing process, focused on health facilities contracts—see also [#254].

Refinancing

During implementation, 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 Section 1.4: *How PPPs Are Financed*, many PPP contracts set out rules for determining and sharing the gains from refinancing. 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. The **EPEC Guide to Guidance** on PPPs [#83, page 35] also provides a succinct summary of how refinancing can be treated in the PPP contract

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: *Adjustment Mechanisms*. 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** [#169, Section 3.10] dispute resolution mechanisms for PPP can include the following:

- **Mediation**—a third part gets involved to help resolve a dispute by recommending how the parties can settle their disagreements. Mediation is used in the hope of not having to enter formal arbitration.
- **Recourse to a sector regulator**—for PPPs in sectors under the remit of an independent regulatory body, this regulator can be assigned responsibility for resolving certain disputes. This is a relatively simple and hence low-cost option, but can be risky for the private party, particular in case of 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
- **Panel of experts as arbitrators**—the PPP 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 (see Box 3.10: *International Centre for Settlement of Investment Disputes (ICSID)*) or involve 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** [#165, 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. 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 [#184] sets out the procedures for conflict resolution during the implementation of the PPP contract. The 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
- In **Uruguay**, the Law on PPP Contracts [#269] prescribes that the parties must agree on an ad-hoc arbitration panel to solve any disputes.

The standardized contracts listed in *Table 3.1: Examples of Standardized PPP Contracts and Contract Clauses* provide further examples of dispute resolution clauses and options.

Box 3.10: International Centre for Settlement of Investment Disputes (ICSID)

ICSID, part of the World Bank Group, is an autonomous international institution established under the *Convention on the Settlement of Investment Disputes between States and Nationals of Other States* (known as the ICSID or the Washington Convention, entered into force in 1966) with over one hundred and forty member States. The primary purpose of ICSID is to provide facilities for conciliation and arbitration of international investment disputes.

The ICSID Convention sought to remove major impediments to the free international flows of private investment posed by non-commercial risks and the absence of specialized international methods for investment dispute settlement. ICSID was created by the Convention as an impartial international forum providing facilities for resolving legal disputes between eligible parties, through conciliation or arbitration procedures. Recourse to the ICSID facilities is always subject to the parties' consent. The ICSID maintains a Panel of Arbitrators and a Panel of Conciliators (mediators).

The ICSID website, <https://icsid.worldbank.org/ICSID/Index.jsp> provides more information and examples of international dispute settlements—including cases in roads, railways, ports, airports, energy, waste, water, wastewater, and other sectors. Many award reports are available in the website, in English and French. The website also provides a set of model clauses regarding conciliation and arbitration—in English, French, and Spanish.

3.4.5 Termination Provisions

In most cases, PPP contracts have a defined term. The contract typically sets out the contract termination date, as well as arrangements for contract close and asset handover. The PPP contract, or in some cases the relevant PPP Law, should also specify circumstances in which the contract may be terminated early, and consequences of termination in each case.

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 [#98].

A third alternative is to let the length of the concession be determined endogenously, as described by **Kerf et al** [#169, 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 Galetovic** [#73] as a way to manage the risk of fixed-term concessions, and has been used for toll roads in Chile and Colombia.

Kerf et al [#169, pages 81-82] and **lossa et al** [#159, 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.

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** [#282, 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** [#15, 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’
- **The United Kingdom’s standard PFI contract** [#234] requires inspection around 2 years before the end of the contract, on the basis of which any work required to bring the facility up to the required standard is specified. Fee payments may be withheld by the contracting authority and released only when the required work is carried out
- **EPEC Guide to Guidance** [#83, page 42] describes how bonds or guarantees can be used to ensure asset quality at handover.

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 public sector. 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 3.2: *Types of Early Termination and Termination Payments*.

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** [#83, pages 40-42] describes each of these causes of termination and the options for defining termination payments in each case
- A more detailed **EPEC publication on termination provisions** [#86] provides a review of current European practice and guidance on termination and force majeure provisions in PPP contracts

- **Yescombe** [#295] also describes termination causes and options for termination payments, in greater detail
- **Ehrhardt and Irwin** [#72, 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** [#48, page 46] provides more information on lenders’ step-in rights.

The standardized contracts listed in Table 3.1: *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** [#83, 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 always have an interest in keeping the contract alive and services operational, thereby inducing them to ‘step-in’ before issues of poor performance lead to default by the private party.

Table 3.2: Types of Early Termination and Termination Payments

Termination	Typical Triggers	Defining Termination Payment
Private party default	<ul style="list-style-type: none"> ▪ Failure to complete construction ▪ Persistent failure to meet performance standards ▪ Insolvency of project company <p>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</p>	<p>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:</p> <ul style="list-style-type: none"> ▪ Full value or a specified proportion of outstanding debt ▪ Depreciated book value of assets ▪ Net present value of future cash flows (subtracting costs of termination) ▪ 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 <i>force majeure</i> 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

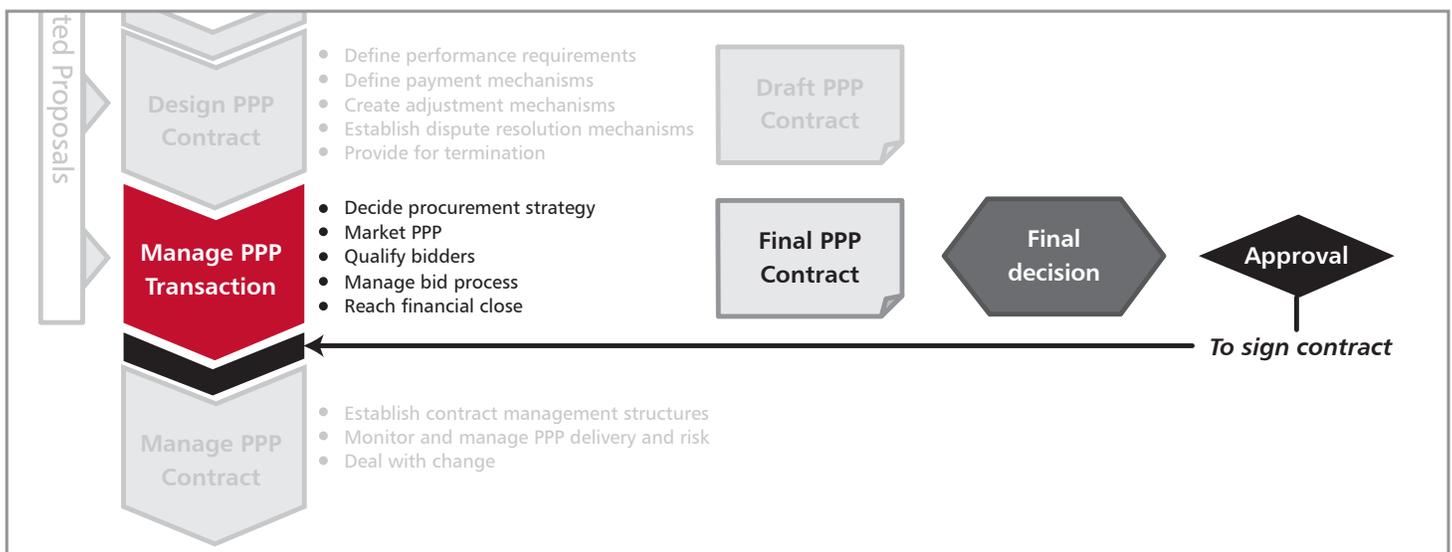
Key References: Designing PPP Contracts	
Reference	Description
European PPP Expertise Centre (2011) <i><u>The Guide to Guidance: How to Prepare, Procure, and Deliver PPP Projects</u></i> , Luxembourg	Section 2.2.5 on “prepare the draft contract” briefly describes typical contract content; Box 3 provides more detail on defining payment mechanisms Section 4 on Project Implementation describes dealing with change within the contract, dispute resolution, and termination
World Bank (2009) <i><u>Toolkit for Public Private Partnerships in Roads and Highways</u></i>	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
Infrastructure Australia (A) (2011) <i><u>National PPP Guidelines: Roadmap for applying the Commercial Principles</u></i> ; (B) (2008) <i><u>National PPP Guidelines: Commercial Principles for Social Infrastructure (Vol.3)</u></i> ; (C) (2011) <i><u>National PPP Guidelines: Commercial Principles for Economic Infrastructure (Vol.7)</u></i>	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
World Bank (2011) <i><u>PPP Arrangements / Types of Public-Private Partnership Agreements</u></i> , http://ppp.worldbank.org/public-private-partnership/content/agreements	The PPP in Infrastructure Resource Center hosts a collection of actual PPP contracts and sample agreements for a range of contract types and sectors
Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <i><u>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</u></i> , World Bank/PPIAF	Chapter 4 on “selecting projects” includes a section on specifying output requirements, and defines and provides examples of “SMART” output specifications
Hong Kong Efficiency Unit (2007) <i><u>A User Guide to Contract Management</u></i> , Hong Kong, China	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
United Kingdom, MOD Private Finance Unit (2010) <i><u>Output-Based Specifications for PFI/PPP Projects: Version 0.2 Consultation Draft</u></i> , London	Provides detailed guidance on output-based specification, and a process for developing the specification for a PPP project
Iossa, Spagnolo & Vellez (2007) <i><u>Contract Design in Public-Private Partnerships</u></i> , 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
United Kingdom, Her Majesty’s Treasury (2007) <i><u>Standardization of PFI Contracts: Version 4</u></i> , London	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
Kerf, Gray, Irwin, Levesque, Taylor & Klein (1998) <i><u>Concessions for Infrastructure: A guide to their design and award</u></i> , World Bank Technical paper no. 399	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
4ps (2005) <i><u>Review of Operational PFI and PPP Projects</u></i> , London	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
South Africa, National Treasury (2004) <i><u>PPP Manual Module 6: Managing the PPP Agreement</u></i> , Johannesburg	Module 6 of the manual, on “managing the PPP Agreement” briefly outlines how performance requirements, monitoring and enforcement mechanisms should be established. The Standardized PPP Provisions set out and explain key provisions across all elements of the PPP Contract

United Kingdom, Scottish Government (2004) <u>Output Specifications: Building our Future - Scotland's School Estate</u>, Edinburgh	Sets out model output specifications for schools PPP projects as well as some guidance on key issues in defining output-based specifications
United States, Federal Highway Administration (2011) <u>Key Performance Indicators in Public-Private Partnerships: A State-of-the-Practice Report</u>, Washington, D.C.	A state-of-the practice description of domestic and international practices for key performance indicators in PPPs, based on a comprehensive literature review and eight case studies from Australia, British Columbia, the United Kingdom and the United States
World Bank (2006) <u>Approaches to Private Sector Participation in Water Services: A Toolkit</u>	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
Tim Irwin (2003) <u>Public Money for Private Infrastructure: Deciding When to Offer Guarantees, Output-Based Subsidies, and Other Fiscal Support</u>, 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
Yescombe, E. R. (2013) <u>Public-Private Partnerships: Principles of Policy and Finance</u>, 2nd edition, Elsevier Science, Oxford	Chapter 13: Service-fee mechanism describes the different possible payment mechanisms (focusing on government-pays PPPs) and their implications for risk allocation and bankability. 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
United Kingdom, Scottish Government (2007) <u>Briefing Note 1: Payment Mechanisms in Operational PPP Projects</u>, Edinburgh	Describes experience with defining and implementing government-pays payment mechanisms in PPPs
Hong Kong Efficiency Unit (2008) <u>An Introductory Guide to Public Private Partnerships</u> (2nd ed), Hong Kong, China	Section 9: Changes of Circumstance provides guidance on the types of changes that the PPP contract should be able to deal with
Jadresic, A. (2007) <u>Expert Panels in Regulation of Infrastructure in Chile</u> (Working Paper No. 2) World Bank	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
David Ehrhardt & Tim Irwin (2004) <u>Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy towards Leverage, Risk Allocation, and Bankruptcy</u>, World Bank Policy Research Working Paper 3274	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
Clement-Davies, C. (2007) <u>Public-Private Partnerships in Central and Eastern Europe: structuring concessions agreements</u>, in European Bank for Reconstruction and Development (eds.) <u>Law in Transition 2007: Public Private Partnerships, Legal reform in Russia</u> (38-50) London	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
Juan Carlos Cassagne (1999) <u>El Contrato Administrativo</u>, Buenos Aires, Argentina: Lexis-Nexis Abeledo-Perrot	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
Cassagne, Juan Carlos & Gaspar Ariño Ortiz (2005) <u>Servicios Públicos: Regulación y Renegociación</u>, Buenos Aires, Argentina: Lexis-Nexis Abeledo-Perrot	Describes regulatory reform in public services, including achieving regulation through effective PPP contracts. Includes guidance on mechanisms for tariff changes, and for dispute resolution
Souto, M. J. (2004) <u>Direito Administrativo das concessões</u>, Rio de Janeiro, Brazil: Lumen Juris	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. 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 3.6: Transaction Stage of PPP Process



The aim of the PPP transaction stage is twofold. The first is to select a competent firm or consortium. The second is to identify the most effective and efficient solution to the proposed project's objectives—both from a technical, and value for money perspective. To the latter end the process typically establishes some of the key quantitative parameters of the contract: the amounts government will pay, or the fees users will pay for the assets and services provided. Achieving these objectives 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 [#282] under 'competitive bidding', and by **Farquharson et al** [#95, page 112] in describing the outcome of the procurement phase.

Since most governments use a competitive selection process to procure PPP contracts, as the best way to achieve transparency and value for money, this section assumes a competitive process is followed. In practice, there may be a few circumstances where direct negotiation could be a good option. However, many reasons put forward to negotiate directly are spurious, as described in Box 3.11: *Competitive Procurement or Direct Negotiation*.

Box 3.11: 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.

There can be good reasons to negotiate directly, but these are relatively few—see for example **Kerf et al's guide to concessions** [#169, pages 109-110] or **World Bank water sector PPP toolkit** [#273, 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 the 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** [#282] 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 often considered when a PPP idea has originated as an unsolicited proposal from a private company—but there are also ways to introduce competition in this case that help ensure value for money from the resulting project, 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 [#34]). Elsewhere, direct negotiation may be allowed in particular circumstances. For example, **Puerto Rico's PPP Act** also allows for direct negotiations if investment value is 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 [#210, Article 9.(b).ii]

Figure 3.7: Transaction Steps

The transaction stage typically includes the following five steps, as shown in Figure 3.7: *Transaction Steps*:

- **Deciding on a procurement strategy**, including the process and criteria for selecting the PPP contractor
- **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: *Deciding the Procurement Strategy* to 3.5.5: *Achieving Contract Effectiveness and Financial Close* 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 key 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.

The **overall goals** of the procurement strategy, as described above, are both to find the best solution to the project’s objectives (from a technical and value for money perspective), and to select a competent firm or consortium to implement that solution. This typically requires a fair, competitive, transparent, and efficient procurement process. However, the best procurement strategy to achieve these objectives may depend on the context. For example, allowing dialogue with bidders can lead to stronger proposals, as described below. 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.

There may also be some **constraints** in how the procurement strategy can be defined. Firstly, as described in Section 2.2: *PPP Legal Framework*, the procurement strategy for a PPP may be constrained by any laws or regulations on overall government procurement. Moreover, many governments 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. Doing so can improve transparency of PPP procurements; although there are also advantages to retaining flexibility to adapt processes to the needs of particular projects. Table 3.3: *Examples of PPP Procurement Procedures* below provides examples of PPP procurement procedures as defined in national or international laws and regulations. Finally, where the project involves funding from a multilateral development bank or other agency, the procurement options may also 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** [#283], 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.

Table 3.3: Examples of PPP Procurement Procedures

Example	Reference	Pre-qualification	Bid Process	Negotiations with Bidders	Basis for Award
Brazil	Federal Concessions Law (Law 8987, 1995) [#33] and Federal PPP Law (Law 11079, 2004) [#34]	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) [#46]	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 [#71]	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
EU ‘open procedure’	Described in EPEC Guide to Guidance [#83, page 22]	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 ‘negotiated procedure’		Pre-qualification—number of bidders may be restricted between 3 to 5	On-going multi-stage process of negotiation	Allowed throughout the process	Financial, or combined financial/technical
EU ‘competitive dialogue’		Pre-qualification—number of bidders may be restricted between 3 to 5	Multi-stage bid process (this is a variant of the “negotiated procedure”)	Dialogue permitted on all aspects prior to submitting final bids. No further changes after final bids submitted (clarifications are permitted)	Combined financial/technical
Mexico	Law on Purchases, Leases, and Services to the Public Sector (2000) [#184]	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 ¹

Example	Reference	Pre-qualification	Bid Process	Negotiations with Bidders	Basis for Award
Philippines	BOT Law Implementing Rules and Regulations [#202]	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 [#219]	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 Dialogue allowed with bidders prior to issuing request for BAFO	Combined financial, technical, and Black Economic Empowerment

1 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.

Qualifying bidders

Most bidding processes set out 'qualification criteria' that all participating firms must meet. Requiring bidders to set out their qualifications helps ensure a competent firm is selected, with the capacity to implement the project. Clear qualification requirements can also encourage experienced firms 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.

Most governments require bidders to 'pre-qualify'—that is, check bidders' qualifications before the start of the tender process, with a view to capping the number of bidders. Typically pre-qualification involves ranking potential bidders according to specified qualification criteria. The top-ranking bidders—typically between three and six—invited to submit proposals.

The alternative is to set pass/fail qualification criteria, and qualify and invite proposals from all firms that pass. While this approach can be used in a pre-qualification process, it is more typically done simultaneously with the bidding process—sometimes called 'post-qualification'. Under this approach, bidders can self-screen against the published qualification criteria before investing resources in preparing a proposal. For a few, large and very complex process the self-selection process (aided by the due-diligence that financing parties will exert upon prospective bidders) may be sufficiently stringent that no qualification is needed.

Prequalification has both advantages and disadvantages:

- The main **advantage** is in limiting the number of bidders. By reducing the number of bidders, the probability of success increases, and bidders may be incentivized to invest more effort in developing an efficient project and presenting a competitive bid. At the same time, the effort and resources required from government to evaluate bids can be reduced

- The main **disadvantage** is that making public the list of pre-qualified bidders may enable collusive behavior. Moreover, pre-qualifying a set number of bidders, in particular, can mean the same top-ranking firms tend to be invited to bid in a given sector, providing further temptation to collusion in the bidding process.

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:

- **PPIAF's Toolkit for PPPs in Roads and Highways** [#282], which includes a section on 'Concessions: Main Steps in competitive bidding'
- **A World Bank Technical Note on Procurement of Management Contracts** [#278, pages 9-21] describes the pros and cons, and how some of the problems of pre-qualification can be overcome
- **Farquharson et al** [#95, 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** [#16, page 16] recommends using pre-qualification to select a particular number of bidders—at least three, sometimes more. On the other hand, **Singapore PPP Handbook** [#216, page 60] precludes pre-determining the number of qualified bidders, because this would limit competition. Table 3.3: *Examples of PPP Procurement Procedures* provides more examples of PPP procurement processes, including whether and what type of pre-qualification process is included.

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 below under '*Negotiation with bidders: during bidding process*'. 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, more complex to manage and more expensive for all parties involved. 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** [#95, pages 113-114] summarizes the advantage of sequential screening over multiple stages—improving the quality of bids
- A **World Bank Technical Note on Procurement of Management Contracts** [#278, pages 22-33], which describes different bidding processes and their relative advantages
- **PPIAF’s Toolkit for PPPs in Roads and Highways** [#282] section on ‘Concessions: Main Steps in competitive bidding’ describes one- and two-stage bid processes.

Many countries’ PPP frameworks 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** [#219, 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 3.3: *Examples of PPP Procurement Procedures* provides further examples.

Negotiation with bidders: during bidding process

A major difference between procurement approaches in different countries is in the extent to which the government enters into negotiations with bidders. Negotiating at any stage can be challenging, and risks 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).

In a multi-stage bidding process (see Section 3.5.4: *Managing the 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. In other cases, governments may enter into negotiation with a single bidder, after a preferred bidder has been selected.

For example, in 2004 the European Commission introduced the ‘competitive dialogue’ procedure for procuring PPPs in the European Union. 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** [#256] provides more details. In Australia, a similar process may be used, called an “interactive tender”. The **Australian National PPP Practitioners’ Guide** [#16, pages 70-71] describes the interactive tender process; protocols for the process are also provided in an appendix.

Kerf et al [#169, pages 110-112] provide further examples of competitive negotiations, and when it may be useful. The **World Bank's water sector toolkit** [#273, pages 169-170] also describes the advantages and disadvantages of this approach. In general, competitive negotiation has been used less in less developed countries.

Negotiation with bidders: post-bid

Once a preferred bidder has been identified, governments may then enter into **post-bid negotiation**—that is, 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 3.3: *Examples of PPP Procurement Procedures* 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** [#83, 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** [#295] also describes on the risks of post-bid negotiations, and why they typically arise
- **Kerf et al's Guide for Concessions** [#169, 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.

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** [#169, 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** [#278, 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** [#182, 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) [#33 Article 15] and the Federal PPP Law (for government-pays PPPs) [#34 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.

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 **Spanish procurement law** prescribes that bidders should provide a temporary guarantee to back their proposal and increase it to meet the definitive guarantee once the contract is awarded. The **Philippines BOT Law** implementing regulations require a bid bond of between 1 and 2 percent of the estimated project cost [#202, Section 7.1 Clause b (vi)]. **Kerf et al's guide to concessions** [#169, 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** [#16, 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 [#46]. This was an element of the reform to the PPP law that took place in 2010.

A **KPMG review of PPP procurement in Australia** [#173] 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.

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** [#169, page 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** [#83, page 27] notes that EU governments must publish a notice in the *Official Journal of the European Union*. The **South Africa PPP Manual** [#219, 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.

There is limited guidance material available on marketing PPP projects. **Farquharson et al** [#95, page 105] briefly describes the advantage of releasing information about the project prior to the formal launch, to attract bidder interest. It also describes 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.

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 3.5.3: *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 [#95, 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** [#83, page 27-28] also provides a helpful overview of the pre-qualification process.

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 3.12: *Firm Qualification Criteria*), 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 [#219, 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** [#216, 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** [#16] 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** [#282] 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: Pre-Qualification of Bidders** [#147] includes a model RFQ, as well as guidance on the steps of a qualification process
- World Bank Sample Bidding Documents for Management Contracts [#278] include a sample RFQ
- The **World Bank PPP in Infrastructure Resource Center website** [#286] includes a page on 'Procurement Processes and Standardized Bidding Documents' available at <http://ppp.worldbank.org/public-private-partnership/content/procurement-processes-and-standardized-bidding-documents>, with a link to a draft standard RFQ for Power Purchase Agreements, as well as 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.

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 3.12: *Firm Qualification Criteria* 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 3.5.3: *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 [#219, 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 3.12: 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** [#278, 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** [#169, 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” [#16, 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** [#198, 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 [#202, 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 chosen bid process and basis for award, as described in Section 3.5.1: *Deciding the Procurement Strategy* under 'Bid process'. This section describes and provides guidance on the following elements of managing the bid process:

- Preparing and issuing Request for Proposal (RFP) documents
- Interacting with bidders during the bidding period
- Receiving bids
- Evaluating bids to select the preferred bidder
- Dealing with problems such as receiving only one bid, or no fully compliant bids
- Finalizing the contract with the preferred bidder.

Farquharson et al [[#95](#), 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.

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:
 - An Information Memorandum describing the key features of the project and the commercial terms of the PPP

- Draft project agreements—that is, the output of the detailed PPP contract design process described in Section 3.4: *Designing PPP Contracts*
- Copies of any permits or approvals obtained for the project
- A description of the detailed technical information amassed during the project preparation stage that will be provided to bidders in a data room

Information on the bid process. This could include:

- Detailed bid rules and instructions to bidders, setting out the process and requirements
- A timetable, which should build in enough time to allow bidders to prepare quality proposals
- Box 3.13: *Evaluation Criteria*
- Bid bond requirements (if any), as described in the section on ‘Approach to bid costs and payments’ under 3.5.1: *Deciding the Procurement Strategy*.

Table 3.4: Examples and *Guidance on Preparing RFP Documents*. For further examples, the **World Bank PPP in Infrastructure Resource Center website** [#286] 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 [#275], along with some guidance in foreword to the documents.

Table 3.4: Examples and Guidance on Preparing RFP Documents

Jurisdiction	Reference	Description
Australia	National PPP Practitioners’ Guide [#16, pages 17-22]	Describes in detail the content of the RFP
Brazil	Federal PPP Law (Law 11079, 2004) [#34, 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
Chile	Concessions Law [#46]	The Chilean PPP Unit housed within the Ministry of Public Works provides access to the complete RFP of all their PPP projects.
Colombia	Law 80/1993, General Statute for Procurement by the Public Administration [#50, 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 [#51, 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

India	Ministry of Finance Model RFP Document [#146]	Provides a full generic model RFP, intended for use by contracting authorities at the national level
South Africa	PPP Manual module on procurement [#219, pages 27-41]	Describes first how bidders can participate in finalizing the RFP; then describes in detail the content of the RFP

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** [#282] in its ‘Concessions: Main Steps in competitive bidding’ section, describes what technical information should be available in the data room
- The **ADB PPP Handbook** [#8, page 71] presents a sample data room index
- **Australia’s national PPP practitioners’ guide** [#16, pages 24-25] briefly describes the use of a data room, and a query process
- The **Singapore PPP Handbook** [#216, 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 [#50] 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 ‘*Negotiation with bidders: during bidding process*’ under 3.5.1: *Deciding the Procurement Strategy*, 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** [#256]. **Australia’s National PPP Practitioners’ Guide** [#16, pages 70-71] describes how a similar, “interactive tender” process is typically used in Australia.

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 [#202, Rule 7]. The **World Bank sample bidding documents** for output- and performance-based road contracts [#275, 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.

Dumol’s diary of the Manila Water privatization by concession [#63, 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 3.13: *Evaluation Criteria* 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 [#219, 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 3.13: 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: *Deciding the Procurement Strategy* under 'Basis for Award').

The options for specific criteria depend on the nature of the project, as described (with examples) by **Kerf et al** [#169, 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** [#73]. 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** [#169, 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** [#83, page 23] briefly discusses the criteria that could be used for bidder selection

- **Guasch** [#123, 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** [#273, 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 [#16, 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** [#83, 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 [#283, 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 value”. The **United Kingdom Government’s guidance on the competitive dialogue procedure** [#256, 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—the references listed above under ‘Preparing and issuing Request for Proposal documents’ provide guidance on preparing a clear, comprehensive, and well-structured RFP, to avoid this issue. The multi-stage and competitive dialogue procedures described in 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** [#16, pages 27-28], which describes two options in cases where no preferred bidder can be selected—entering into a 'Best and Final Offer' (BAFO) process with two bidders, or structured negotiations. The **South Africa PPP Manual** Module 5 [#219, pages 51-56] also describes in detail when and how to run a BAFO process, if no clear preferred bidder can be identified.

Finalizing the PPP contract with the preferred bidder

Once the preferred bidder has been selected, governments sometimes 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: *Deciding the Procurement Strategy* under 'Negotiation with bidders: post-bid'. 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** [#83, page 31] describes a European Union rule that no issues that are material to the procurement can be changed—that means that no change that could have resulted in a different result from the bidding process 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** [#16, 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 [#219, pages 59-61] describes principles for negotiation, and the negotiation process
- **ADB PPP Handbook** [#8, 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 may need to finalize the financing agreements for the PPP. The preferred bidder typically also needs to 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** [#282] 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

EPEC Guide to Guidance [#83, pages 31-33] describes the range of financing agreements for a typical PPP. These financing agreements are often not finalized until after the contract has been awarded. 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** [#95, 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.

Section 1.4: *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** [#295], 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 [#83, 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
World Bank (2009) <i>Online Toolkit for Public Private Partnerships in Roads and Highways</i>	Module 5: Implementation and Monitoring, Stages 3: Procurement, and 4: Contract Award
Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i> , World Bank/PPIAF	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
Kerf, Gray, Irwin, Levesque, Taylor & Klein (1998) <i>Concessions for Infrastructure: A guide to their design and award</i> , World Bank Technical Paper no. 399	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
World Bank (2006) <i>Approaches to Private Participation in Water Services: A Toolkit</i> , Washington, DC	Section 9: Selecting an Operator provides guidance on choosing a procurement method, setting evaluation criteria, managing the bidding process, and dealing with other issues
World Bank (2011) <i>Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers</i> ; Also available in French and Spanish	Sets out the procurement procedures that any project receiving World Bank funding must use
European PPP Expertise Centre (2011) <i>The Guide to Guidance: How to Prepare, Procure, and Deliver PPP Projects</i> , Luxembourg	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

<p>World Bank (2007) <u>Sample Bidding Document: Procurement of Management Services</u>. Includes <u>Sample Bidding Documents, Sample Prequalification Document</u>, and an accompanying <u>Technical Note</u></p>	<p>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</p>
<p>United Kingdom, Office of Government Commerce (2008) <u>Competitive dialogue in 2008: OGC/HMT Joint guidance on Using the Procedure</u>, Norwich</p>	<p>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</p>
<p>Yescombe, E. R. (2013) <u>Public-Private Partnerships: Principles of Policy and Finance</u>, 2nd edition, Elsevier Science, Oxford</p>	<p>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</p>
<p>KPMG (2010) <u>PPP Procurement: Review of Barriers to Competition and Efficiency in the Procurement of PPP Projects</u>, Canberra</p>	<p>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</p>
<p>Asian Development Bank (2008) <u>Public-Private Partnership Handbook</u>, Manila, Philippines</p>	<p>Section 7: Implementing a PPP describes several aspects of PPP procurement, including selecting the process, pre-qualification, bid evaluation, and preparing the tender documentation</p>
<p>Mark Dumol (2000) <u>The Manila Water Concession: A Key Government Official’s Diary of the World’s Largest Water Privatization</u>, World Bank</p>	<p>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</p>
<p>Engel, Fischer & Galetovic (2002) <u>A New Approach to Private Roads</u>, Regulation, Fall, 18-22</p>	<p>Describes and explains the advantages of the Least Present Value of Revenue criterion introduced in Chile’s toll road program</p>
<p>José Luís Guasch (2004) <u>Granting and Renegotiating Infrastructure Concessions: Doing it Right</u>, World Bank</p>	<p>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</p>
<p>Examples: Managing PPP Transactions</p>	
<p>Brasil, Congresso Nacional (2004) <u>Lei Nº 11079</u>, Brasília</p>	<p>Clarifies process for PPPs, including describing the contents of the RFP documents, and the possible evaluation criteria</p>
<p>Puerto Rico, Legislative Assembly (2009) <u>No. 29 (S. B. 469)</u> San Juan</p>	<p>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</p>
<p>Brazil, Congresso Nacional (1995) <u>Lei Nº 8.987</u>, Brasília</p>	<p>Sets out the tendering procedures for (user-pays) concessions in Brazil (which also apply to government-pays PPPs)</p>
<p>Chile, Ministerio de Obras Públicas (2010) <u>Ley y Reglamento de Concesiones de Obras Públicas</u>, Santiago</p>	<p>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</p>
<p>Egypt (2011) <u>Prime Ministerial Decree n. 238</u>, Regulation of Law 67/2010, Cairo</p>	<p>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</p>
<p>Mexico, Congreso de la Unión (2000) <u>Ley de Adquisiciones, Arrendamientos y Servicios del Sector Público</u>, Mexico City</p>	<p>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</p>
<p>Philippines, Build-Operate-and-Transfer Center (2006) <u>Republic Act No. 7718 (The Philippine BOT Law) and its Implementing Rules & Regulations</u>, Makati, Philippines</p>	<p>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</p>

South Africa, National Treasury (2004) <u>PPP Manual Module 5: PPP Procurement</u>, Johannesburg	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
Australia, Infrastructure Australia (2011) <u>National PPP Guidelines: Practitioners' Guide (Vol. 2)</u>, Canberra	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
Singapore, Ministry of Finance (2004) <u>Public-Private Partnership Handbook (Version 1)</u>	Section 3 sets out PPP procurement process options and principles
Mauritius, Ministry of Finance and Economic Development (2006) <u>Public Private Partnership Guidance Manual</u>, Port Louis	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
India, Planning Commission (2009) <u>Model Request for Qualifications</u>, New Delhi	Sets out a model RFQ, with an explanatory introduction
World Bank (2011) <u>PPP in Infrastructure Resource Center</u>	Provides a library of PPP documents, including a selection of model and example procurement documents
Pakistan, Ministry of Finance (2007) <u>Procurement Guidelines for PPP Projects</u>, Islamabad	Detailed guidance on the pre-qualification and RFP stages, managing the bid process, evaluation, negotiation, contract signing, and financial close
World Bank (2006) <u>Sample Bidding Documents: Procurement of Works and Services under Output- and Performance-based Road Contracts, and Sample Specifications</u>	Includes a comprehensive, sample bidding document, as well as sample specifications in an annex. A foreword also provides some overview guidance
Colombia (2006) <u>Ley 80 de 1993</u>, Bogotá	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
Colombia (2007) <u>Ley 1150 de 2007</u>, Bogotá	Sets out rules to ensure the objective selection of the winning bid, procedures to verify the veracity of the information presented by bidders
India, Planning Commission (2009) <u>Model Request for Proposals (RFP): Selection of Technical Consultants</u>, New Delhi	Sets out a model RFP, with an explanatory introduction
Australia, Partnerships Victoria (2001) <u>Practitioners' Guide</u>, Melbourne	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

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 allow 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 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: *Creating Competitive Tension* 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: *Defining Clear Processes* 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 bottlenecks and innovative solutions. It also provides government with information about where commercial opportunities and market interest lie. Box 1.5: *Hot lanes in Virginia—An Example of Private Sector Innovation* provided 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.

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. As described in the **PPIAF toolkit for PPPs in Roads and Highways** [#282, 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. Moreover, unsolicited projects may divert government attention from a planned approach to infrastructure as a whole.

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.

Box 3.14: *Costs of Direct Negotiation—Independent Power Tanzania* 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 3.14: 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, but 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 (2009) *Deterring Corruption and Improving Governance in the Electricity Sector*, Washington, D.C.; Anton Eberhard & Katharine Nawal Gratwick (2010) *IPPs in Sub-Saharan Africa: Determinants of Success*, Washington, D.C.: World Bank

The **PPIAF toolkit for PPPs in Roads and Highways** section on unsolicited proposals [#282, 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 Website** section on unsolicited proposals [#286], 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. Box 3.11: *Competitive Procurement or Direct Negotiation* describes some [#129] sets out the following approaches:

- **Access to 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 3.5.4: *Managing the 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** [#219]
- **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 [#148].
- **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) [#46]
- **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** [#212].

Table 3.5: *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 [#129, 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 3.5: Examples of Procurement Strategies for Unsolicited Proposals

Jurisdiction	Reference	Key Features
Chile	Public works concession regulations (updated 2010) [#46, Title II: Bids Submitted by Private Parties]	<ul style="list-style-type: none"> ▪ 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 ▪ Costs of carrying out studies are reimbursed (paid by the winning bidder; or by the government if project never proceeds to bid stage). Costs agreed at initial project approval stage ▪ 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) [#148, Chapter IV]	<ul style="list-style-type: none"> ▪ Unsolicited proposals welcomed for projects not already in priority list ▪ 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

Jurisdiction	Reference	Key Features
Italy	Legislative Decree no. 163 (2006) [#164, Articles 153-155]	<ul style="list-style-type: none"> 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 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 Error! Not a valid result for table.). 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 [#171, pages 67-69]	<ul style="list-style-type: none"> Unsolicited proposals must be evaluated by the contracting authority and the PPP unit (PIMAC) The opportunity is published and alternate proposals are requested, within a 90 day time limit 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 Losing bidders are compensated in part for proposal costs, to encourage competition
Philippines	BOT Law 1993 (Republic Act No. 7718) Rules and Regulations [#202, Rule 10]	<ul style="list-style-type: none"> Unsolicited proposals welcomed for projects not already in priority list The contracting authority must advertise the opportunity for at least three weeks, and invite competing proposals within a 60 day time limit 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 If no competing proposal is received, the authority may negotiate with the proponent
South Africa (roads sector)	SANRAL policy for unsolicited proposals (2001) [#217]	<ul style="list-style-type: none"> Unsolicited proposals must comply with clear content requirements, and are evaluated by the Agency 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 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
Commonwealth of Virginia, United States of America (highways sector)	Virginia PPP Implementation Guidelines [#264]	<ul style="list-style-type: none"> Proposals are welcome that comply with the detailed requirements set out and are evaluated in the same way as government-originated projects 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
Uruguay	Article 37 of Law Number 18.786 [#269]	<ul style="list-style-type: none"> Proponent is entitled to a bid bonus of up to 10% of the final evaluation score Proponent is reimbursed for the cost of detailed studies only if not successful in winning the contract

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 [#259, 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 [#17], which follows a similar approach to UNCITRAL, allowing direct negotiation of the PPP in certain circumstances. The **Partnerships Victoria** Practitioner's Guide [#19] 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.

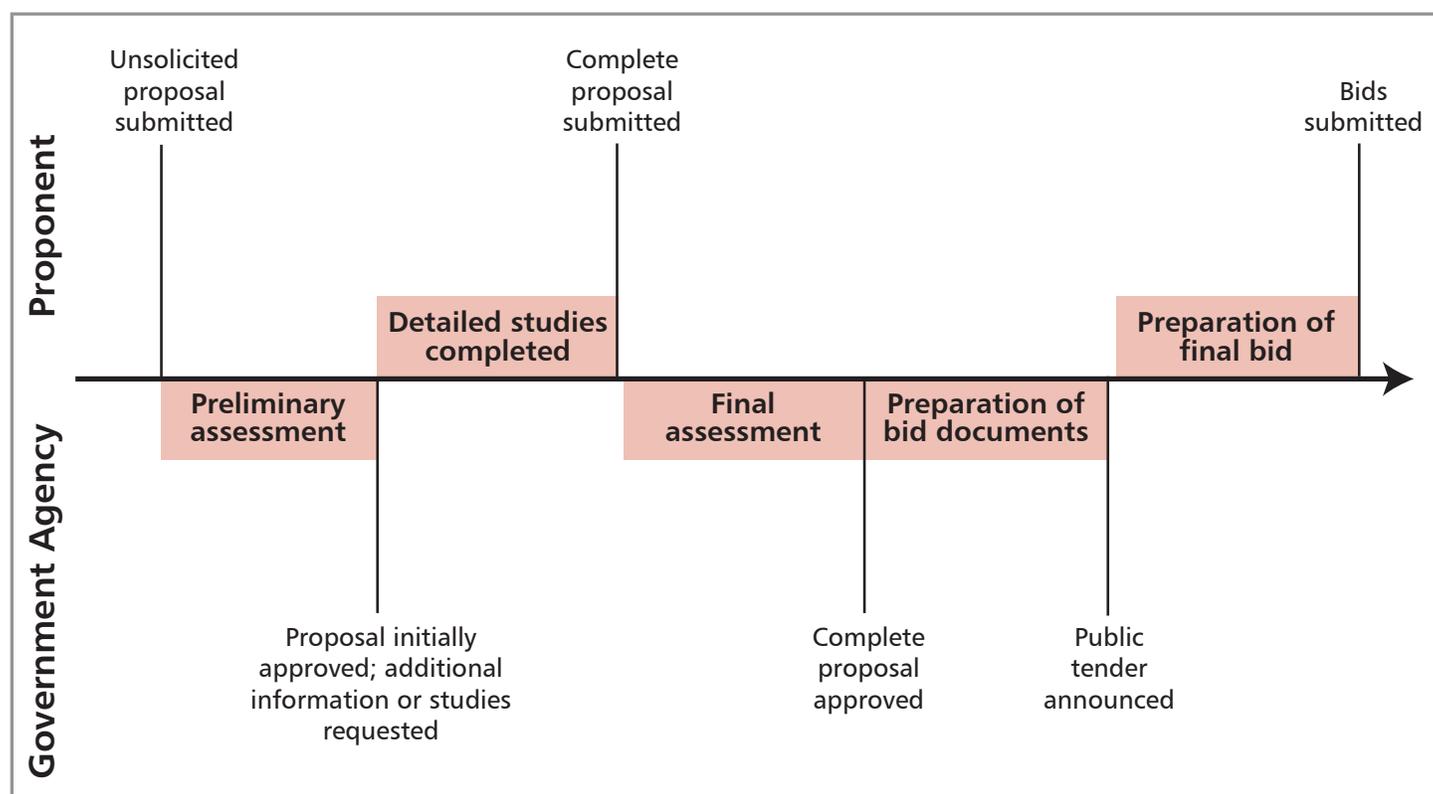
3.6.4 Defining Clear Processes

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 [#129] describe a well-defined process to assess, approve and bid out a project from an unsolicited proposal, as illustrated Figure 3.8: *Process for Assessing, Approving and Bidding an Unsolicited Proposal*. 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 for PPP Potential*. 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** [#171, pages 67-69]).

Figure 3.8: Process for Assessing, Approving and Bidding an Unsolicited Proposal



Source: Based on Hodges and Dellacha [#129, page 7]

Many countries specify time periods within which each of these steps will be taken. **Hodges and Dellacha** [#129, 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 [#202] 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 3.5: *Examples of Procurement Strategies for Unsolicited Proposals* briefly describes processes for dealing with unsolicited proposals in several countries. Chile’s concessions law [#46], in particular, sets out

the approach and requirements in detail. The **ADB/KDI report on PPP experience in Korea** [#171, pages 67-69] also describes each step in the procedure for dealing with unsolicited proposals.

Key References: Dealing with Unsolicited Proposals	
Reference	Description
World Bank (2009) <u>Online Toolkit for Public Private Partnerships in Roads and Highways</u>	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
World Bank (2011) <u>PPP in Infrastructure Resource Center, http://ppp.worldbank.org/public-private-partnership/</u>	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
Reddy & Kalyanapu, <u>Unsolicited Proposal: New Path to Public-Private Partnership, Indian Perspective, Netherlands: Eindhoven University of Technology</u>	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
Hodges & Dellacha (2007) <u>Unsolicited Infrastructure Proposals: How Some Countries Introduce Competition and Transparency</u>, PPIAF Working Paper No. 1, World Bank	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
United Nations (2001) <u>Legislative Guide on Privately Financed Infrastructure Projects</u>, New York, United Nations Commission on International Trade Law	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
Hodges, J. (2003) <u>Unsolicited Proposals: The Issues for Private Infrastructure Projects, Public Policy for the Private Sector</u>, 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
Hodges, J. (2003) <u>Unsolicited Proposals: Competitive Solutions for Private Infrastructure Projects, Public Policy for the Private Sector</u>, Note Number 258	Describes the experience of four countries in dealing with unsolicited proposals: Chile, the Republic of Korea, the Philippines, and South Africa

Examples: Dealing with Unsolicited Proposals	
South Africa, National Roads Authority (1999) <u>Policy of the South African National Roads Agency in Respect of Unsolicited Proposals</u>, Johannesburg	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
Indonesia (2005) Peraturan Presiden Republik Indonesia Nomor 67 Tahun 2005, as amended by (2011) Peraturan Presiden Republik Indonesia Nomor 56 Tahun 2011, Jakarta	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. (The English version of regulation 56 is available on Bappenas’ website.)
Chile, Ministerio de Obras Públicas (2010) <u>Ley y Reglamento de Concesiones de Obras Públicas</u>, Santiago	Title II of Regulation Number 956 of the Public Works Concessions 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
Italia (2006) <u>Codice dei contratti pubblici relativi a lavori, servizi e forniture in attuazione delle direttive 2004/17/CE e 2004/18/CE.Gazzetta Ufficiale n.100 del May 2, 2006.</u>	Articles 153-155 describe when unsolicited proposals are accepted, how they are evaluated, and the procurement process that applies

<p>Kim, Jay-Hyung, Jungwook Kim, Sung Hwan Shin & Seung-yeon Lee (2011) <i>PPP Infrastructure Projects: Case Studies from the Republic of Korea (Vol. 1)</i>, Manila, Philippines: Asian Development Bank</p>	<p>Pages 61-69 describe the implementation procedures for PPP projects, including those originated as unsolicited proposals</p>
<p>Philippines Build-Operate-Transfer Center (1993) <i>Republic Act No. 7718 (The Philippines BOT Law) and its Implementing Rules & Regulations</i>, Makati, Philippines</p>	<p>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</p>
<p>United States, The Commonwealth of Virginia (2005) <i>Public-Private Transportation Act of 1995 (as Amended): Implementation Guidelines</i>, Richmond, VA</p>	<p>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</p>
<p>Uruguay, Asamblea General (2011) <i>Ley N° 18786</i>, Montevideo</p>	<p>Article 37 discusses the advantages granted to the proponent submitting an unsolicited proposal.</p>
<p>Australia, New South Wales Treasury (n.d.) <i>Intellectual Property Guideline for Unsolicited Private Sector Proposals Submitted Under Working With Government</i>, Sydney, available online at www.wwg.nsw.gov.au/</p>	<p>Provides a checklist of intellectual property issues that should be covered in unsolicited proposals, intended as guidance for proponents</p>
<p>Australia, Partnerships Victoria (2001) <i>Practitioners' Guide</i>, Melbourne</p>	<p>Section 21: Unsolicited Proposals sets out how intellectual property in unsolicited proposals will be dealt with</p>

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 3.9: 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** [#229, page 5]. The **South Africa** PPP Manual section on PPP Agreement Management [#219, 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. **EPEC's 2014 Guidance for Managing PPPs** [#89] condensates European experiences on the topic.

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 four key 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 [#232].

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** 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.

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 [#95, 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 [#229, pages 15-16] provides a typical job profile and skills required for a contract manager. The **United Kingdom Operational Taskforce guidance** [#232, 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
- **Appropriate seniority.** For example, the **South Africa PPP Manual** module on contract management [#219, 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** [#229, 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 [#229, 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 and designated contract management team. 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 Section 2.3: *PPP Processes and Institutional Responsibilities*). For example, in **Peru**, contract management responsibilities in the transport sector are mostly allocated to OSITRAN—Organismo Supervisor de la Inversión en Infraestructura de Transporte de Uso Público—an agency in charge of regulating and supervising the management of public transport infrastructure. 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 Peru** [#297] further describes the responsibilities of OSITRAN. Similar regulatory agencies exist in other infrastructure sectors in Peru
- 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) 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 [#46]
- **Central PPP units** or other specialized support units may have a role in supporting the contracting authority’s contract management team. **Farquharson et al** [#95, pages 137-138] notes 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.

The **World Bank’s Water PPP Toolkit** [#273, 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: *Monitoring and Managing PPP Delivery and Risk*. 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: *Dealing with Change*.

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 [[#229](#), 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
- **South Africa PPP Manual** module on contract management [[#219](#), 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** [[#229](#), 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 [[#232](#), pages 21-22]. The **4Ps Guide** [[#229](#), 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 ‘cozy’ 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 [[#219](#), pages 20-28] and **Fortea et al’s Seguimiento de una Concesión** [[#104](#)], which describes the project monitoring process in Spain.

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** [#229, 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 Structures*, 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** [#20, 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** [#20, page 55] describes how independent reviewers are used at construction and service delivery stages. **India's guidelines on monitoring PPP projects** [#145, 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** [#229, page 33] describes a helpdesk, to be established by the service provider, 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 3.7.3: *Dealing with Change*).

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** [#95, 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 3.15: *Example of Weak Risk Monitoring—Victoria Trams and Trains* provides an example of weak risk management, where the government’s contract monitor collected risk information, but failed to act on it.

Box 3.15: 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, D. & Irwin, T. (2004) *Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy toward Leverage, Risk Allocation, and Bankruptcy* (Working Paper 3274). Washington, DC: World Bank.

The following resources provide further guidance and examples of risk management approaches:

- The **South Africa PPP Manual** module on contract management [#219, pages 20-24] describes how risk monitoring and management should center around a risk management plan
- **The Partnerships Victoria Contract Management Guide** [#20, 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 [#250], 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
- A shorter overview on similar topics is provided in **Quick’s article on managing PPP contracts** [#211] which also adds an Australian perspective
- **UNESCAP’s PPP guidebook** [#261, 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 contract expiry or termination.

Planned reviews and adjustments

Well-structured PPP contracts build in adjustment mechanisms for dealing with the more common types of ‘unexpected’ change, as described in Section 3.4.3: *Adjustment Mechanisms*. 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** [#83, 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.

Renegotiation or contract variations

Many PPP contracts are renegotiated, often quite early in their lives, as described by **Guasch in his book on renegotiation in PPPs** [#123]. ‘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** [#20, 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 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** [#72]). 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** [#11], which describes the renegotiation process and results
- **The United Kingdom National Air Traffic Services (NATS) PPP**, also described by **Ehrhardt and Irwin** [#72], 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. **Johnston and Gudergan** subsequently reviewed the experience to draw lessons for PPP governance [#167].

Road contract renegotiations in **Portugal** and **Spain**, during the recent economic and financial crisis, present an interesting case of renegotiation under fiscal stress—but lessons are not yet reported. The British National Audit Office already reported on similar renegotiations for reducing service levels and obtaining project savings.

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** [#20, 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 3.6: *Distinction between Service Delivery Issues and Disputes*.

Table 3.6: 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: Australia, Partnership Victoria (2003), *Contract Management Guide*. Melbourne

The **Partnerships Victoria Contract Management Guide** also contains sample templates for specifying how issues may be escalated [#20, Template M] and disputes resolved [#20, 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. However, as described in a review of the dispute case [#226, 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 (ICSID, a part of the World Bank Group)—see Box 3.10: *International Centre for Settlement of Investment Disputes (ICSID)*. In July 2010, ICSID ruled that the Argentinian government unfairly refused to allow the private concessionaires to raise tariffs during the period after the devaluation of the Argentine peso in 2001 and that the private companies are entitled to damages—see Box 1.6: *When PPPs fail—The case of the 1993 water concession in Buenos Aires* on this conflict.

Overly [#197] 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
- Resolve the issues at the lowest level possible and only escalate if they are not resolved.

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 [#28_2, 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.

Key References: Managing PPP Contracts	
Reference	Description
4ps (2007) <u><i>A Guide to Contract Management for PFI and PPP Projects</i></u>, London	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
South Africa, National Treasury (2004) <u><i>National Treasury PPP Manual Module 6: Managing the PPP Agreement</i></u>, Johannesburg	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
United Kingdom, Her Majesty’s Treasury’s <u><i>Operational Taskforce Notes</i></u>. Includes: (2006) <u><i>Note 1: Benchmarking and Market Testing Guidance</i></u> (2007) <u><i>Note 2: Project Transition Guidance</i></u> (2008) <u><i>Note 3: Variations Protocol for Operational Projects</i></u> (2009) <u><i>Note 4: Contract Expiry Guidance</i></u>	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
Farquharson, Torres de Mästle, and Yescombe, with Encinas (2011) <u><i>How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets</i></u>, World Bank/PPIAF	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
Zevallos Ugarte, J. C. (2011) <u><i>Concesiones en el Perú: Lecciones Aprendidas</i></u>, Lima, Perú: Fondo Editorial de la USMP	Describes lessons learned from Perú’s PPP program, including a description of the regulatory and contract monitoring arrangements
World Bank (2006) <u><i>Approaches to Private Participation in Water Services: A Toolkit</i></u>	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
Fortea, Torrodellas, Vitoria, Tejerina & Millan (2011) <u><i>Proyecto Fin de Master: Seguimiento de una concesión</i></u>, Madrid, España: Universidad Politécnica de Madrid	Describes the Spanish methodology for the monitoring of PPP projects. www.csg-master.com/proyectos
Australia, Partnership Victoria (2005) <u><i>Contract Management Guide</i></u>, Melbourne	Describes key elements of effective relationship and contract management, and provides detailed guidance, and templates and tools, on all stages of contract management
India, Planning Commission (2009) <u><i>Guidelines for Monitoring of PPP Projects</i></u>, New Delhi	Describes institutional frameworks for monitoring PPPs, and includes annexes with sample monitoring reports
United Kingdom, National Audit Office (2001) <u><i>Managing the Relationship, to Secure Successful Partnership in PFI Projects: Report by the Comptroller and Auditor General (HC 375)</i></u> London	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
Quick, R. (2003) <u><i>Long-term ties: Managing PPP contracts</i></u>, <i>Public Infrastructure Bulletin</i>, 1(2) 12	Briefly describes key features of successful contract management arrangements, drawing on Australian experience
United Nations (2011) <u><i>A Guidebook on Public-Private Partnership in Infrastructure</i></u>, Bangkok, Thailand: United Nations Economic and Social Commission for Asia and the Pacific	Chapter 6 provides guidance on contract management intended for developing country governments, focusing on institutional arrangements and dispute resolution

Groom, E., Halpern, J. & Ehrhardt, D. (2006) <i>Explanatory Notes on Key Topics in the Regulation of Water and Sanitation Services</i> , Water Supply and Sanitation Sector Board Discussion Paper Series No. 6, World Bank	Note 4 describes the relationship between sector regulation and PPP contracts
European PPP Expertise Centre (2011) <i>A Guide to Guidance: Sourcebook for PPPs</i> (Version 2) Luxembourg	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
World Bank (2012) <i>Body of Knowledge on Infrastructure Regulation</i>	Section IV: Price Level Regulation describes key issues in tariff regulation, and guides readers in accessing a wide range of references.
United Kingdom, Department of Health (2006) <i>Benchmarking and Market Testing in NHS PFI projects: Code of Best Practice</i> , London	Provides guidance intended for contract managers on how to use market testing exercises to review the cost of “soft” services in health sector PPPs
Jose Luis Guasch (2004) <i>Granting and Renegotiating Infrastructure Concessions: Doing it Right</i> , World Bank	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
David Ehrhardt & Tim Irwin (2004) <i>Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy toward Leverage, Risk Allocation, and Bankruptcy</i> , World Bank Policy Research Working Paper 3274	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
Australia, Auditor General Victoria (2005) <i>Franchising Melbourne’s Tram and Train System</i> , Melbourne	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
Johnston & Gudergan (2007) <i>Governance of PPPs: Lessons Learnt from an Australian Case? International Review of Administrative Sciences</i> , 73(4) 569-582	Reviews the experience of the Sydney Cross-City Tunnel PPP contract, drawing lessons for PPP contract management
Triantafilou, E. E. (2009) <i>No Remedy for an Investor’s own Mismanagement: The Award in the ICSID Case Bewater Gauff v. Tanzania, International Disputes Quarterly</i> , Winter 2009, 6-9	Reviews the international arbitration settlement of a water service PPP in Tanzania
Overly, M. S. (2010) <i>When Private Stakeholders Fail: Adapting Expropriation Challenges in Transnational Tribunals to New Governance Theories, Ohio State University Law Journal</i> , 71(2) 341-380	Describes challenges in international arbitration mechanisms, with case studies of arbitrations
World Bank (2009) <i>Online Toolkit for Public Private Partnerships in Roads and Highways</i>	Module 5: Implementation and Monitoring includes a section on “hand back of facilities at contract end”, which describes some key considerations at this stage

Reference list

1. Abrantes de Sousa, Mariana (2011) *Managing PPPs for Budget Sustainability: The Case of PPPs in Portugal, from Problems to Solutions*, pplusofonia blogspot, October 30, 2011
2. Advisory Council for the American Society of Civil Engineers (2009) *2009 Report Card for America's Infrastructure*, Washington, D.C.
3. Akitoby, Bernardin, Richard Hemming & Gerd Schwartz (2007) *Public Investment and Public-Private Partnerships*, Economic Issues 40, International Monetary Fund, Washington, D.C.
4. Alexander, Ian (2007) *Improving the Balance Between Regulatory Independence, Accountability, Decision-making and Performance*, paper prepared for 4th Annual Forum of Utility Regulators
5. Alexander, Ian (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
6. Asian Development Bank (1999) *Handbook for Economic Analysis of Water Supply Projects*, Manila
7. Asian Development Bank (2002) *Handbook for Integrating Risk Analysis in the Economic Analysis of Projects*, Manila
8. Asian Development Bank (2008) *Public-Private Partnership Handbook*, Manila
9. Asian Development Bank (2013) *Exploring Public-Private Partnership in the Irrigation and Drainage Sector in India: A Scoping Study*, Manila
10. Australia, Audit Office of New South Wales (2006) *Auditor-General's Report Performance Audit: The Cross City Tunnel Project*, Sydney

11. Australia, Auditor General Victoria (2005) *Franchising Melbourne's Tram and Train System*, Melbourne
12. Australia, Department of Treasury and Finance (2013) *National PPP Guidelines: Partnership Victoria Requirements*
13. Australia, Infrastructure Australia (2008) *National PPP Guidelines: PPP Policy Framework*, Canberra
14. Australia, Infrastructure Australia (2008) *National Public Private Partnership Guidelines: Volume 4: Public Sector Comparator Guidance*, Canberra
15. Australia, Infrastructure Australia (2008) *National Public Private Partnership Guidelines: Volume 7: Commercial Principles for Economic Infrastructure*, Canberra
16. Australia, Infrastructure Australia (2011) *National PPP Guidelines: Practitioners' Guide*, Canberra
17. Australia, New South Wales Treasury, *Intellectual Property Guideline for Unsolicited Private Sector Proposals Submitted Under Working with Government*, Sydney
18. Australia, Parliament of Victoria (2006) *Report on Private Investment in Public Infrastructure*, Seventy First Report to the Parliament, Public Accounts and Estimates Committee
19. Australia, Partnerships Victoria (2001) *Practitioners' Guide*, Melbourne
20. Australia, Partnerships Victoria (2005) *Contract Management Guide*, Melbourne
21. Australia, Partnerships Victoria (2009) *Annexure 6: Frequently asked questions and common problems in Public Sector Comparator*, Melbourne
22. Australia, Victoria Managed Insurance Authority (2010) *Risk Management: Developing and Implementing a Risk Management Framework*, Melbourne
23. Australia, Victorian Government Purchasing Board, website: www.vgpb.vic.gov.au
24. Bain, Robert & Michael Wilkins (2002) *Infrastructure Finance: Traffic Risk in Start-Up Toll Facilities*, Standard and Poor's, London
25. Bain, Robert & Lidia Polakovic (2005) *Traffic Forecasting Risk Study Update 2005: Through Ramp-Up and Beyond*, Standard and Poor's, London
26. Bakovic, Tonci, Bernard Tenenbaum & Fiona Woolf (2003) *Regulation by Contract: A New Way to Privatize Electricity Distribution?* World Bank Working Paper No.14, Washington, D.C.
27. Banco Interamericano de Desarrollo (2009) *Experiencia Chilena en Concesiones y Asociaciones Público-Privadas para el desarrollo de Infraestructura y la provisión de Servicios Públicos Informe Final*
28. Banco Interamericano de Desarrollo (2009) *Experiencia española en Concesiones y Asociaciones Público-Privadas para el desarrollo de infraestructuras públicas: marco general*
29. Banco Nacional de Desenvolvimento Econômico e Social (BNDES) *website*
30. Belli, Pedro, Jock Anderson, Howard Barnum, John Dixon & Jee-Peng Tan (1998) *Handbook on Economic Analysis of Investment Operations, Operational Core Services Network Learning and Leadership Center*, Washington, D.C.

31. Bing, Li, A. Akintoye, P.J. Edwards & C. Hardcastle (2005) *The allocation of risk in PPP/PFI construction projects in the UK*, International Journal of Project Management, 23
32. Boardman, A., D. Greenberg, A. Vining & D. Weimer (2010) *Cost Benefit Analysis: Concepts and Practice* (4th Ed)
33. Brazil (1995) *Law 8987*, Federal Concessions Law, Brasilia
34. Brazil (2004) *Law 11079*, Federal PPP Law, Brasilia
35. Brazil, State of Rio de Janeiro, Conselho Gestor do Programa Estadual de Parcerias Público-Privadas (2008) *Manual de Parcerias Público-Privadas*, Rio de Janeiro
36. Brazil, State of São Paulo (2004) *Decree 48867*, São Paulo
37. Brazil, State of São Paulo (2004) *Law 11688*, São Paulo
38. Burger, Philippe (2006) *The Dedicated PPP Unit of the South African Treasury*, paper presented at the Symposium on Agencies and Public-Private Partnerships, Madrid, Spain
39. Burger, Philippe & Ian Hawkesworth (2011) *How To Attain Value for Money: Comparing PPP and Traditional Infrastructure Public Procurement*, OECD Journal on Budgeting, Volume 2011/1
40. Burger, Philippe, Justin Tyson, Izabela Karpowicz & Maria Delgado Coelho (2009) *The Effects of the Financial Crisis on Public-Private Partnerships*
41. Business News Americas (2011) *Social Infrastructure: The New Frontier for Concessions*, Infrastructure Intelligence Series, August
42. Cassagne, Juan Carlos & Gaspar Ariño Ortiz (2005) *Servicios Públicos: Regulación y Renegociación*, Lexis-Nexis Abeledo-Perrot, Buenos Aires, Argentina
43. Cassagne, Juan Carlos (1999) *El Contrato Administrativo*, Lexis-Nexis Abeledo-Perrot, Buenos Aires, Argentina
44. Cebotari, Aliona (2008) *Contingent Liabilities: Issues and Practice*, International Monetary Fund, Washington, D.C.
45. Chile, Ministerio de Hacienda (2010) *Informe de Pasivos Contingentes 2010*, Santiago
46. Chile, Ministerio de Obras Públicas (2010) *Ley y Reglamento de Concesiones de Obras Públicas*, Santiago
47. Chile, Ministerio de Planificación (2006) *Metodología de General de Preparación y Evaluación de Proyectos*, Santiago
48. Clement-Davies, Christopher (2007) *Public-Private Partnerships in central and eastern Europe: structuring concessions agreements*, European Bank for Reconstruction and Development,
49. Colombia (1998) *Law 448*, Bogotá
50. Colombia (2006) *Law 80/1993*, Bogotá
51. Colombia (2007) *Law 1150*, Bogotá
52. Colombia (2012) *Law 1508*, Bogotá

53. Colombia, Ministerio de Hacienda y Crédito Público (2005) *Pasivos Contingentes*, Bogotá
54. Colombia, Ministerio de Hacienda y Crédito Público (2010) *Análisis de Elegibilidad para la Preselección de Proyectos de APP*, Bogotá
55. Colombia, Ministerio de Hacienda y Crédito Público (2010) *Manual de procesos y procedimientos para la ejecución de asociaciones público-privadas*, Bogotá
56. Colombia, Ministerio de Hacienda y Crédito Público (2010) *Nota Técnica: Comparador público-privado para la selección de proyectos APP*, Bogotá
57. Daube, Dirk, Susann Vollrath & Hand Wilhelm Alfen (2007) *A Comparison of Project Finance and the Forfeiting Model as Financing Forms for PPPs in Germany*, International Journal of Project Management, 28
58. Delmon, Jeffrey (2009) *Private Sector Investment in Infrastructure: Project Finance, PPP Projects and Risks*
59. Delmon, Jeffrey (2010) *Understanding Options for Private-Partnership Partnerships in Infrastructure*, Policy Research Working Paper 5173, World Bank, Washington, D.C.
60. Delmon, Jeffrey & Victoria Rigby Delmon (eds, 2012) *International Project Finance and PPP: A legal guide to key growth markets* (3rd edition), Kluwer Law International
61. DLA Piper & European PPP Expertise Centre (2009) *European PPP Report 2009*
62. Duffield, Colin (2008) *Report on the Performance of PPP Projects in Australia when compared with a representative sample of traditionally procured infrastructure projects*, University of Melbourne, Australia
63. Dumol, Mark (2000) *The Manila Water Concession: A Key Government Official's Diary of the World's Largest Water Privatization*, World Bank, Washington, D.C.
64. Dutz, Mark, Clive Harris, Inderbir Dhingra & Chris Shugart (2006) *Public Private Partnership Units: What Are They, and What Do They Do?*, Public Policy for the Private Sector 311, World Bank, Washington, D.C.
65. Eberhard, Anton & Katharine Nawal Gratwick (2010) *IPPs in Sub-Saharan Africa: Determinants of Success*, update of paper published in Development Policy Review 2008
66. Eberhard, Anton (2007) *Infrastructure Regulation in Developing Countries: An Exploration of Hybrid and Transitional Models*, World Bank/PPIAF, Washington, D.C.
67. Economist Intelligence Unit (2013) *Evaluating the Environment for Public-Private Partnerships in Latin America and the Caribbean: The 2012 Infrascope: Index guide and methodology*, London
68. Eggers, William D. & Tom Startup (2006) *Closing the Infrastructure Gap: The Role of Public-Private Partnerships*, Deloitte, New York
69. Egypt, Ministry of Finance (2007) *National Program for Private Partnership*, Cairo
70. Egypt (2010) *Law n. 67/2010*, PPP Law, Cairo
71. Egypt (2011) *Prime Ministerial Decree n. 238*, Regulation of Law 67/2010, Cairo

72. Ehrhardt, David & Timothy C. Irwin (2004) *Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy toward Leverage, Risk Allocation, and Bankruptcy*
73. Engel, Eduardo, Ronald Fischer & Alexander Galetovic (2002) *A New Approach to Private Roads*, Regulation, Fall, 18-22
74. Engel, Eduardo, Ronald Fischer & Alexander Galetovic (2008) *Public-Private Partnerships: When and How*, IDEAS
75. Equator Principles Association Secretariat (2011) *Equator Principles*, Essex
76. European Commission (2009) *Sourcebook 2 – Techniques & Tools: Evaluative Alternatives*, Brussels
77. European Investment Bank (2005) *RAILPAG: Railway Project Appraisal Guidelines*, Luxembourg
78. European PPP Expertise Centre (EPEC), [website](#)
79. European PPP Expertise Centre (2009) *The Financial Crisis and the PPP Market: Potential Remedial Actions*, Luxembourg
80. European PPP Expertise Centre (2009) *European PPP Report*, Luxembourg
81. European PPP Expertise Centre (2010) *Eurostat Treatment of Public-Private Partnerships: Purposes, Methodology and Recent Trends*, Luxembourg
82. European PPP Expertise Centre (2011) *State Guarantees in PPPs: A Guide to Better Evaluation, Design, Implementation, and Management*, Luxembourg
83. European PPP Expertise Centre (2011) *The Guide to Guidance: How to Prepare, Procure, and Deliver PPP Projects*, Luxembourg
84. European PPP Expertise Centre (2011) *The Non-Financial Benefits of PPPs: A Review of Concepts and Methodology*, Luxembourg
85. European PPP Expertise Centre (2012) *France: PPP Units and Related Institutional Framework*, Luxembourg
86. European PPP Expertise Centre (2013) *Termination and force majeure provisions in PPP contracts*, Luxembourg
87. European PPP Expertise Centre (2014) *Portugal: PPP Units and Related Institutional Framework*, Luxembourg
88. European PPP Expertise Centre (2014) *Role and Use of Advisers in preparing and implementing PPP projects*, Luxembourg
89. European PPP Expertise Centre (2014) *Managing PPPs during their contract life: Guidance for sound management*, Luxembourg
90. European Union (2004) *Directive 2004/17/EC*
91. European Union (2004) *Directive 2004/18/EC*
92. European Union (2009) *Directive 2009/81/EC*

93. Farlam, Peter (2005) *Working Together: Assessing Public-Private Partnerships in Africa*, South African Institute of International Affairs, NEPAD Policy Focus Series
94. Farquharson, Edward & Javier Encinas (2010) *The U.K. Treasury Infrastructure Finance Unit: Supporting PPP Financing During the Global Liquidity Crisis*, World Bank, Washington, D.C.
95. Farquharson, Edward, Clemencia Torres de Mästle, E. R. Yescombe & Javier Encinas (2011) *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets*, World Bank, Washington, D.C.
96. Farrugia, Christine, Tim Reynolds & Ryan J. Orr (2008) *Public-Private Partnership Agencies: A Global Perspective*, Working Paper 39, Collaboratory for Research on Global Projects, Stanford, California
97. Fischer, Ronald (2011) *The Promise and Peril of Public-Private Partnerships: Lessons from the Chilean Experience*
98. Fisher and Babbar, *Private Financing of Toll Roads*, World Bank RMC Discussion Paper Series 117, pages 7-8
99. Fitch Ratings (2006) *Outlook for Infrastructure Finance in Korea: Partnerships at Work*, International Public Finance/Project Finance Special Report
100. Flanagan, Joe & Paul Nicholls (w/d) *Public Sector Business Cases using the Five Case Model: a Toolkit*
101. Flyvbjerg, Bent (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
102. Flyvbjerg, Bent, Mette K. Skamris Holm & Søren L. Buhl (2002) *Underestimating Costs in Public Works Project: Error or Lie?*, Journal of the American Planning Association, 68(3) 279-295
103. Flyvbjerg, Bent, Mette K. Skamris Holm & Søren L. Buhl (2005) *How (in)accurate are demand forecasts in public works projects? The case of transportation*, Journal of the American Planning Association, 71(2) 131-146
104. Fortea, Carlos Sorni, Emilio Gardeta Torrodellas, Sergio Herrán Vitoria, Juan Pablo Matute Tejerina & Jorge Vitutia San Millán (2011) *Proyecto Fin de Master: Seguimiento de una concesión*, Universidad Politécnica de Madrid, Madrid
105. Foster, Richard (2010) *Preserving the Integrity of the PPP Model in Victoria, Australia, during the Global Financial Crisis*, World Bank, Washington, D.C.
106. Foster, Vivien & Cecilia Briceño-Garmendia (2010) *Africa's Infrastructure: A Time for Transformation*, World Bank, Washington, D.C.
107. Frauendorfer, Rudolf & Roland Liemberger (2010) *The Issues and Challenges of Reducing Non-Revenue Water*, Asian Development Bank, Manila
108. Funke, Katja, Tim Irwin & Isabel Rial (2013) *Budgeting and reporting for public-private partnerships*, OECD/International Transport Forum Joint Transport Research Centre Discussion Papers

109. Gassner, Katharina, Alexander Popov & Nataliya Pushak (2009) *Does Private Sector Participation Improve Performance in Electricity and Water Distribution?*, World Bank, Washington, D.C.
110. Germany, *Gesetz gegen Wettbewerbsbeschränkungen*, GEB, Act Against Restraints of Competition
111. Germany (2006) *Leitfaden Wirtschaftlichkeitsuntersuchungen bei PPP-Projekten, A guide to economic feasibility analyses for PPP projects*
112. Germany (2010) *PPP Schools Frankfurt: Case Study*
113. Germany, *Vergabeordnung*, VgV, Ordinance on the Award of Public Contracts
114. Germany, Federal Ministry of Transport, *Leitfaden wirtschaftlichkeitsuntersuchung bei der vorbereitung von hochbaumaßnahmen des bundes*, Guide to economic feasibility analysis in planning building construction projects of the Federation
115. Germany, Federal Ministry of Transport (2003) *Federal Transport Infrastructure Plan 2003: Methodology for macroeconomic evaluation*
116. Global Water Intelligence (2010) *Egypt's Local Banks Reach for their Staples*, Volume 11, Issue 5 (May)
117. Gray, Stephen, Jason Hall & Grant Pollard (2010) *The public private partnership paradox, unpublished manuscript*
118. Grimsey, Darrin & Mervyn K. Lewis (2004) *Discount debates: Rates, risk, uncertainty and value for money in PPPs*, *Public Infrastructure Bulletin*, 1(3)(2)
119. Grimsey, Darrin & Mervyn K. Lewis (2005) *Are Public Private Partnerships value for money?: Evaluating alternative approaches and comparing academic and practitioner views*, *Accounting Forum* 29(4) 345-378
120. Grimsey, Darrin & Mervyn K. Lewis, chapter in Akintola Akintoye & Matthias Beck (2009) *Developing a Framework for Procurement Options Analysis*, Wiley-Blackwell
121. Grimsey, Darrin & Mervyn K. Lewis, chapter in Akintola Akintoye & Matthias Beck (2009) *Developing a Framework for Procurement Options Analysis*, Wiley-Blackwell
122. Groom, Eric, Jonathan Halpern & David Ehrhardt (2006) *Explanatory Notes on Key Topics in the Regulation of Water and Sanitation Services*, World Bank, Water Supply and Sanitation Sector Board Discussion Paper Series, 6, Washington, D.C.
123. Guasch, José Luis (2004) *Granting and Renegotiating Infrastructure Concessions: Doing it Right*, World Bank, Washington, D.C.
124. Gupta, Prashant, Rajat Gupta & Thomas Netzer (2009) *Building India: Accelerating Infrastructure Projects*, McKinsey and Company, Mumbai, India
125. Harris, Clive & Sri Kumar Tadimalla (2008) *Financing the Boom in Public-Private Partnerships in Indian Infrastructure: Trends and Policy Implications*, Gridlines 45, World Bank/PPIAF, Washington, D.C.
126. Hine, John (2008) *Economics of Road Investment* (slides), World Bank, Washington, D.C.

127. Hodges, John (2003) Unsolicited Proposals: Competitive Solutions for Private Infrastructure Projects, Public Policy for the Private Sector, Note 258
128. Hodges, John (2003) Unsolicited Proposals: The Issues for Private Infrastructure Projects, Public Policy for the Private Sector, Note 257
129. Hodges, John T. & Georgina Dellacha (2007) Unsolicited Infrastructure Proposals: How Some Countries Introduce Competition and Transparency, PPIAF Working Paper, Washington, D.C.
130. Hong Kong Efficiency Unit (2007) A User Guide to Contract Management, Hong Kong, China
131. Hong Kong Efficiency Unit (2008) An Introductory Guide to Public Private Partnerships, Hong Kong, China
132. India, Comptroller and Auditor General (2009) Public-Private Partnerships in Infrastructure Projects: Public Auditing Guidelines, New Delhi
133. India, Department of Economic Affairs (2013) Scheme and Guidelines for Financial Support to Public Private Partnerships in Infrastructure, New Delhi
134. India Infrastructure Finance Company Limited, IIFCL (2013) Takeout Finance Scheme for Financing Viable Infrastructure Projects, webpage
135. India, Ministry of Finance (2006) Guidelines for determining eligibility of proposals for financial support to Public Private Partnerships in infrastructure under the Viability Gap Funding Scheme, New Delhi
136. India, Ministry of Finance (2007) Model Request for Proposal for PPP Projects, New Delhi
137. India, Ministry of Finance (2008) Guidelines for Formulation, Appraisal and Approval of Central Sector Public Private Partnership Projects, New Delhi
138. India, Ministry of Finance (2008) Panel of Transaction Advisors for PPP Projects: A Guide for Use of the Panel, New Delhi
139. India, Ministry of Finance (2008) Scheme and Guidelines for India Infrastructure Project Development Fund, New Delhi
140. India, Ministry of Finance (2009) Prequalification of Bidders: Model Request for Qualification for PPP Projects, New Delhi
141. India, Ministry of Finance (2010) PPP Toolkit for Improving PPP Decision-Making Processes, New Delhi
142. India, Ministry of Finance (2011) Draft PPP Rules, 2011: Discussion Draft, New Delhi
143. India, Ministry of Finance (2011) PPP Toolkit for Improving PPP Decision-Making Processes, New Delhi
144. India, Ministry of Finance, Promoting Infrastructure Development Through PPPs: A Compendium of State Initiatives, New Delhi
145. India, Planning Commission (2009) Guidelines for Monitoring of PPP Projects, New Delhi
146. India, Planning Commission (2009) Model Request for Proposals, New Delhi
147. India, Planning Commission (2009) Model Request for Qualifications, New Delhi

148. Indonesia (2005) *Peraturan Presiden Republik Indonesia Nomor 67 Tahun 2005 Infrastruktur*, Jakarta
149. Indonesia Infrastructure Guarantee Fund (IIGF) website <http://www.iigf.co.id/Website/Home.aspx>
150. Infrastructure Partnerships Australia (2007) *Performance of PPPs and Traditional Procurement in Australia*, Sydney
151. Multilateral Investment Fund / Fondo Multilateral de Inversiones (MIF/FOMIN) [website](#)
152. Inter-American Development Bank (2014) *Sustainable infrastructure for competitiveness and inclusive growth: IDB Infrastructure Strategy*, Washington, D.C.
153. International Federation of Accountants, [IPSAS website](#)
154. International Federation of Accountants (2011) *International Public Sector Accounting Standard 32 - Service Concession Agreements: Grantor* (IPSAS-32), New York
155. International Finance Corporation, *Handshake: IFC's Quarterly Journal on PPPs*, Washington, D.C.
156. International Monetary Fund (2001) *Government Finance Statistics Manual*, Washington, D.C.
157. International Monetary Fund (2007) *Manual on Fiscal Transparency*, Washington, D.C.
158. International Organization of Supreme Audit Institutions (2007) *Guidelines on Best Practice for the Audit of Public/Private Finance and Concessions*
159. Iossa, Elisabetta, Giancarlo Spagnolo & Mercedes Vellez (2007) *Best Practices on Contract Design in PPPs: Checklist*, World Bank, Washington, D.C.
160. Irwin, Timothy C (2003) *Public Money for Private Infrastructure: Deciding When to Offer Guarantees, Output-Based Subsidies, and Other Fiscal Support*, World Bank Working Paper 10, Washington, D.C.
161. Irwin, Timothy C (2007) *Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects*, World Bank, Washington, D.C.
162. Irwin, Timothy C. & Tanya Mokdad (2010) *Managing Contingent Liabilities in Public-Private Partnerships: Practice in Australia, Chile, and South Africa*, World Bank, Washington, D.C.
163. Istrate, Emilia & Robert Puentes (2011) *Moving Forward on Public Private Partnerships: U.S. and International Experience with PPP Units*, Brookings Institution, Washington, D.C.
164. Italy (2006) *Codice dei contratti pubblici relativi a lavori, servizi e forniture in attuazione delle direttive 2004/17/CE e 2004/18/CE*, Gazzetta Ufficiale n.100 del May 2
165. Jadresic, Alejandro (2007) *Expert Panels in Regulation of Infrastructure in Chile*
166. Jamaica (2012) *Shaping new Partnerships for National Development: PPP Policy*, Kingston
167. Johnston, Judy & Siegfried P. Gudergan (2007) *Governance of Public-Private Partnerships: Lessons Learnt from an Australian Case?*, International Review of Administrative Sciences, 73
168. Ke, Yongjian, Shou Qing Wang & Albert P.C. Chan (2010) *Risk Allocation in PPP Infrastructure Projects: Comparative Study*, *Journal of Infrastructure Systems*, 16(4), 343-351

169. Kerf, Michael, R. David Gray, Timothy C. Irwin, Celine Levesque, Robert R. Taylor & Michael Klein (1998) *Concessions for Infrastructure: A Guide to Their Design and Award*, World Bank Technical Paper, March, Washington, D.C.
170. Khatib, Hisham (2003) *Economic Evaluation of Projects in the Electricity Supply Industry*
171. Kim, Jay-Hyung, Jungwook Kim, Sung Hwan Shin & Seung-yeon Lee (2011) *Public-Private Partnership Infrastructure Projects: Case Studies from the Republic of Korea: Volume 1: Institutional Arrangements and Performance*, Asian Development Bank, Manila
172. Klingebiel, Daniela & Jeff Ruster (1999) *Why Infrastructure Financing Facilities Often Fall Short of Their Objectives*, World Bank, Washington, D.C.
173. KPMG (2010) *PPP Procurement: Review of Barriers to Competition and Efficiency in the Procurement of PPP Projects*, Canberra
174. LaRoque, Norman (2006) *Contracting for the Delivery of Education Services: A Typology and International Examples*, Fraser Forum, September, 6-8
175. Leigland, James (2006) *Is the public sector comparator right for developing countries? Appraising public-private projects in infrastructure*, Gridlines 4, World Bank/PPIAF, Washington, D.C.
176. Lindsay, Jonathan (2012) *Compulsory Acquisition of Land and Compensation in Infrastructure Projects*, PPP Insights, World Bank, Washington, D.C.
177. Liu, Lili & Juan Pradelli (2012) *Financing Infrastructure and Monitoring Fiscal Risks at the Subnational Level*, World Bank, Policy Research Working Paper, 6069
178. McKee, Martin, Nigel Edwards & Rifat Atun (2006) *Public-private partnerships for hospitals*, Bulletin of the World Health Organization, November, 84 (11) 890-896
179. McKinsey Global Institute (2013) *Infrastructure productivity: How to save \$1 trillion a year*, Seoul, San Francisco and London
180. Marin, Philippe (2009) *Public-Private Partnerships for Urban Water Utilities: A Review of Experience in Developing Countries*, World Bank/PPIAF, Washington, D.C.
181. Mauritius, Ministry of Economic Development, Financial Services & Corporate Affairs (2003) *Public Private Partnership Policy Statement*, Port Louis
182. Mauritius, Ministry of Finance and Economic Development (2006) *Public Private Partnership Guidance Manual*
183. Menzies, Iain & Cledean Mandri-Perrott (2010) *Private Sector Participation in Urban Rail*, Gridlines 54, World Bank/PPIAF, Washington, D.C.
184. Mexico (2000) *Ley de Adquisiciones, Arrendamientos y Servicios del Sector Público*, Mexico City
185. Mexico (2012) *Ley de Asociaciones Público Privadas*, Mexico City
186. Mexico, Fondo Nacional de Infraestructura (2011) *Reglas de Operación*
187. Mumssen, Yogita, Lars Johannes & Geeta Kumar (2010) *Output-Based Aid: Lessons Learned and Best Practices*, World Bank, *Directions in Development Finance*, 53644, Washington, D.C.

188. National Planning Department of Colombia (2006) *Metodología general ajustada para la identificación, preparación y evaluación de proyectos de inversión*, Bogotá
189. New Zealand, National Infrastructure Unit (2009) *Guidance for Public Private Partnerships (PPPs) in New Zealand*, Version 1.1
190. Ng, A. & Martin Loosemore (2007) *Risk allocation in the private provision of public infrastructure*, *International Journal of Project Management*, 25(1) 66-76
191. Organization for Economic Co-Operation and Development (2002) *OECD Best Practices for Budget Transparency*, Paris
192. Organization for Economic Co-Operation and Development (2007) *Infrastructure to 2030 Volume 2: Mapping Policy for Electricity, Water and Transport* (French version: Les infrastructures à l'horizon 2030), Paris
193. Organization for Economic Co-Operation and Development (2007) *OECD Principles for Private Sector Participation in Infrastructure*, Paris
194. Organization for Economic Co-Operation and Development (2008) *Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money*, Paris
195. Organization for Economic Co-Operation and Development (2010) *Dedicated Public-Private Partnership Units: A Survey of Institutional and Governance Structures* (French version: Les unités consacrées aux partenariats public-privé: une étude des structures de gouvernance), Paris
196. Organization for Economic Co-Operation and Development (2012) *Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships*, Paris
197. Overly, M. S (2010) *When Private Stakeholders Fail: Adapting Expropriation Challenges in Transnational Tribunals to New Governance Theories*, *Ohio State University Law Journal*, 71
198. Pakistan, Ministry of Finance (2007) *Procurement Guidelines for PPP Projects*, Islamabad,
199. Peru (2008) *Law 1012*, Lima
200. Peru, Ministerio de Economía y Finanzas, *Pasivos Contingentes*, Lima
201. Peru, Ministerio de Economía y Finanzas, *Pautas para la Identificación, formulación y evaluación social de proyectos de inversión pública, a nivel de perfil*, Lima
202. Philippines (1994) *Law 7718*, Manila
203. Philippines (2010) *Executive Order 8*, Manila
204. Philippines, National Economic Development Authority (2004) *ICC Project Evaluation Procedures and Guidelines*, Manila
205. Philippines, National Economic Development Authority (2005) *Reference Manual on Project Development and Evaluation*, Manila
206. Polackova, Hana (1998) *Government Contingent Liabilities: A Hidden Risk to Fiscal Stability*, World Bank
207. Posner, Paul L., Shin Kue Ryu & Ann Tkachenko (2009) *Public-Private Partnerships: The Relevance of Budgeting*, *OECD Journal on Budgeting*

208. PricewaterhouseCoopers (2005) *Delivering the PPP Promise: A Review of PPP Issues and Activity*, London
209. Public-Private Infrastructure Advisory Facility, website: *PPIAF publications*, www.ppiaf.org/ppiaf/allpublications, Washington, D.C.
210. Puerto Rico (2009) *Law 29*
211. Quick, Roger (2003) *Long-term ties: Managing PPP contracts*, Public Infrastructure Bulletin, 1
212. Reddy, Sahul & Chanakya Kalyanapu, *Unsolicited Proposal: New Path to Public-Private Partnership, Indian Perspective*, Eindhoven University of Technology, Netherlands
213. Sanghi, Apurva, Alex Sundakov & Denzel Hankinson (2007) *Designing and Using public-private partnership units in infrastructure: Lessons from case studies around the world*, Gridlines 27, World Bank
214. Schwartz, Gerd, Ana Corbacho & Katja Funke (2008) *Public Investment and Public-Private Partnerships: Addressing Infrastructure Challenges and Managing Fiscal Risks*, International Monetary Fund, Washington, D.C.
215. Shugart, Chris (2006) *Quantitative Methods for the Preparation, Appraisal, and Management of PPI Projects in Sub-Saharan Africa: Final Report*, New Partnership for Africa's Development, Gaborone, Botswana
216. Singapore, Ministry of Finance (2004) *Public Private Partnership Handbook*
217. South Africa, National Roads Agency (1999) *Policy of the South African National Roads Agency in Respect of Unsolicited Proposals*, Johannesburg
218. South Africa, National Roads Agency (2004) *Annual Report 2004*, Pretoria
219. South Africa, National Treasury (2004) *PPP Manual*, Johannesburg
220. South Korea, Ministry of Strategy and Finance (2010) *Basic Plan for Public-Private Partnerships*, Seoul
221. South Korea, Ministry of Strategy and Finance (2011) *Basic Plan for Public Private Partnerships*, Seoul
222. Souto, Marcos Juruena Villela (2004) *Direito administrativo das concessões*, Lumen Juris, Rio de Janeiro, Brazil
223. Spain (2011) *Texto Refundido de la Ley de Contratos del Sector Público*, Boletín Oficial del Estado, 276, I, 117729-117914
224. Tanzania (2010) *Public Private Partnership Act*
225. Tanzi, Vito & Hamid Davoodi (1998) *Roads to Nowhere: How Corruption in Public Investment Hurts Growth*, Economic Issues 12, International Monetary Fund, Washington, D.C.
226. Triantafilou, Epaminontas (2009) *No Remedy for an Investor's own Mismanagement: The award in the ICSID case Biwater Gauff vs Tanzania*, International Disputes Quarterly, Winter, 6-9
227. United Kingdom, 4Ps Public Private Partnerships Programme (2002) *4Ps Guidance and Case Study*, London

228. United Kingdom, 4Ps Public Private Partnerships Programme (2005) *Review of Operational PFI and PPP Projects*, London
229. United Kingdom, 4Ps Public Private Partnerships Programme (2007) *A Guide to Contract Management for PFI and PPP Projects*, London
230. United Kingdom, Department for Communities and Local Government (2009) *Multi-criteria analysis: a manual*, London
231. United Kingdom, Department of Health (2006) *Benchmarking and Market Testing in NHS PFI projects: Code of Best Practice*, London
232. United Kingdom, Her Majesty's Treasury (2006) *Operational Taskforce Note 1: Benchmarking and Market Testing Guidance*, London
233. United Kingdom, Her Majesty's Treasury (2006) *Value for Money Assessment Guidance*, London
234. United Kingdom, Her Majesty's Treasury (2007) *Standardization of PFI Contracts: Version 4*, London
235. United Kingdom, Her Majesty's Treasury (2008) *Standardization of PFI Contracts: Version 4 Addendum: Amended Refinancing Provisions*, London
236. United Kingdom, Her Majesty's Treasury (2008) *Competitive Dialogue in 2008: OGC/HMT joint guidance on using the procedure*, London
237. United Kingdom, Her Majesty's Treasury (2011) *Quantitative assessment: user guide*, London
238. United Kingdom, Her Majesty's Treasury (2011) *The Green Book: Appraisal and Evaluation in Central Government* (update of the 2003 edition of the Green Book), London
239. United Kingdom, Her Majesty's Treasury (2011) *Valuing infrastructure spend: supplementary guidance to the Green Book*, London
240. United Kingdom, Her Majesty's Treasury, *Guidance Note: Calculation of the Authority's Share of a Refinancing Gain*, London
241. United Kingdom, Her Majesty's Treasury (2012) *A new approach to public private partnerships*, London
242. United Kingdom, Her Majesty's Treasury (2012) *Standardisation of PF2 Contracts (draft)*, December, London
243. United Kingdom, Her Majesty's Treasury (2013) *Early financial cost estimates of infrastructure programmes and projects and the treatment of uncertainty and risk* (supplementary guidance to the Green Book), London
244. United Kingdom, Her Majesty's Treasury, *Guidance Note: The Use of Internal Rates of Return on PFI Projects*, London
245. United Kingdom, House of Commons (2005) *London Underground Public Private Partnerships*
246. United Kingdom, House of Commons, Committee of Public Accounts (2010) *Financing PFI Projects in the Credit Crisis and the Treasury's Response*

247. United Kingdom, House of Lords, Select Committee on Economic Affairs (2010) Government Response to Private Finance Projects and Off-Balance Sheet Debt
248. United Kingdom, House of Lords, Select Committee on Economic Affairs (2010) Private Finance Projects and Off-Balance Sheet Debt
249. United Kingdom, MOD Private Finance Unit (2010) Output-Based Specifications for PFI/PPP Projects: Version 0.2 Consultation Draft, London
250. United Kingdom, National Audit Office (2001) Managing the Relationship, to Secure Successful Partnership in PFI Projects
251. United Kingdom, National Audit Office (2006) A Framework for evaluating the implementation of Private Finance Initiative projects, London
252. United Kingdom, National Audit Office (2010) From Private Finance Units to Commercial Champions: Managing complex capital investment programmes utilizing private finance
253. United Kingdom, National Audit Office (2010) The Performance and Management of Hospital PFI Contracts
254. United Kingdom, National Audit Office (2011) Lessons from PFI and other projects, London
255. United Kingdom, National Audit Office (2011) Review of the VFM assessment process for PFI: Briefing for the House of Commons Treasury Select Committee, London
256. United Kingdom, Office of Government Commerce (2008) Competitive dialogue in 2008: OGC/HMT Joint guidance on Using the Procedure, Norwich
257. United Kingdom, Scottish Government (2004) Output Specifications: Building our Future - Scotland's School Estate, Edinburgh
258. United Kingdom, Scottish Government (2007) Briefing Note 1: Payment Mechanisms in Operational PPP Projects, Edinburgh
259. United Nations Commission on International Trade Law (2001) Legislative Guide on Privately Financed Infrastructure Projects, New York
260. United Nations Commission on International Trade Law (2004) Model Legislative Provisions on Privately Financed Infrastructure Projects, New York
261. United Nations Economic & Social Commission for Asia & the Pacific (2011) A Guidebook on Public-Private Partnership in Infrastructure, Bangkok
262. United Nations Economic Commission for Europe (2008) Guidebook on Promoting Good Governance in Public-Private Partnerships, Geneva
263. United States, USAID (2008) Kazakhstan: PPP Opportunities in a Young Country
264. United States, Commonwealth of Virginia (2005) Public-Private Transportation Act of 1995, Richmond, Virginia
265. United States, Federal Highway Administration (2007) Case Studies of Transportation PPPs around the World, Washington, D.C.
266. United States, Federal Highway Administration (2009) Public Policy Considerations in Public-Private Partnership, Washington, D.C.

267. United States, Federal Highway Administration (2010) *Project Finance Primer*, Washington, D.C.
268. United States, Federal Highway Administration (2011) *Key Performance Indicators in Public-Private Partnerships: A State-of-the-Practice Report*, Washington, D.C.
269. Uruguay (2011) *Law 18786*, Montevideo
270. Vassallo, José Manuel, Alejandro Ortega & María de los Ángeles Baeza (2012) *Risk Allocation in Toll Highway Concessions in Spain: Lessons from Economic Recession*, Transportation Research Record: Journal of the Transportation Research Board, No. 2297, Washington, D.C., pages 80–87
271. World Bank (2001) *A guide for hiring and managing advisors for private participation in infrastructure*, PPIAF, Washington, D.C.
272. World Bank (2006) *Urban Water Sector Reform in Senegal: Innovative Contract Design to Expand Services to the Poor*, Water Feature Stories Issue 4, Washington, D.C.
273. World Bank (2006) *Approaches to Private Sector Participation in Water Services: A Toolkit*, Washington, D.C.
274. World Bank (2006) *India: Building Capacities for Public-Private Partnerships*, Washington, D.C.
275. World Bank (2006) *Sample Bidding Documents: Procurement of Works and Services under Output- and Performance-based Road Contracts, and Sample Specifications*, Washington, D.C.
276. World Bank (2007) *Port Reform Toolkit 2nd ed.*, Washington, D.C.
277. World Bank (2007) *Public Private Partnership Units: Lessons for their Design and Use in Infrastructure*, Washington, D.C.
278. World Bank (2007) *Sample Bidding Document: Procurement of Management Services*, Washington, D.C.
279. World Bank (2008) *Deterring Corruption and Improving Governance in the Water Supply & Sanitation Sector: A Sourcebook*, Water Working Notes 46829, Note No. 18, December 2008, Washington, D.C.
280. World Bank (2009) *Deterring Corruption and Improving Governance in the Electricity Sector*, Energy, Transport and Water Department, Washington, D.C.
281. World Bank (2009) *Deterring Corruption and Improving Governance in Road Construction and Maintenance*, Transport Papers, Washington, D.C.
282. World Bank (2009) *Toolkit for Public Private Partnerships in Roads and Highways*, Washington, D.C.
283. World Bank (2011) *Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrower*, Washington, D.C.
284. World Bank (2011) *Key Features of Common Law or Civil Law Systems*, Washington, D.C.
285. World Bank (2011) *PPP Arrangements / Types of Public-Private Partnership Agreements*, Washington, D.C.

286. World Bank (2011) *PPP in Infrastructure Resource Center for Contracts, Law and Regulation*, Washington, D.C.
287. World Bank (2012) *Best Practices in Public-Private Partnerships Financing in Latin America: the role of subsidy mechanisms*, Washington, D.C.
288. World Bank (2012) *Body of Knowledge on Infrastructure Regulation*, Washington, D.C.
289. World Bank (2012) *Private Participation in Infrastructure Database*, Washington, D.C.
290. World Bank (2013) *An Operational Framework for Managing Fiscal Commitments from Public-Private Partnerships: The Case of Ghana*, Washington, D.C.
291. World Bank (2013) *Disclosure of Project and Contract Information in Public-Private Partnerships*, Washington, D.C.
292. World Bank (2013) *Implementing a Framework for Managing Fiscal Commitments from Public Private Commitments*, Operational Note, Washington, D.C.
293. World Bank (2013) *Value-for-Money Analysis Practices and Challenges: How governments choose when to use PPP to deliver public infrastructures and services*, Washington, D.C.
294. World Bank, *PPP in Infrastructure Resource Center* website
295. Yescombe, E. R. (2013) *Public-Private Partnerships: Principles of Policy and Finance*, 2nd edition, Elsevier Science, Oxford
296. Yong, H. K (ed.) (2010) *Public-Private Partnerships Policy and Practice: A Reference Guide*, London, UK: Commonwealth Secretariat
297. Zevallos Ugarte, Juan Carlos (2011) *Concesiones en el Perú: Lecciones Aprendidas (Concessions in Peru: Lessons Learned)* Fondo Editorial de la USMP

