

— ★ CHAPTER ONE ★ —

Introduction

Poor infrastructure impedes a nation's economic growth and international competitiveness.¹ Insufficient infrastructure also represents a major cause of loss of quality of life, illness, and death.² Infrastructure projects have high social rates of return; research indicates that the growth generated by infrastructure investment is pro-poor, with income levels of the poor rising more

- ¹ "Infrastructure at the Crossroads: Lessons Learned from 20 Years of World Bank Experience," (World Bank, 2006); *Infrastructure and the World Bank: A Progress Report* (World Bank, 2005)
- ² Willoughby, "Infrastructure and the Millennium Development Goals," (October 2, 2004). For further discussion of the importance of infrastructure to economic growth, social cohesion, quality of life, education, health, social development, environmental management, mobilization of private investment, and job creation, please see http://www.worldbank.org





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than proportionately to overall income increases.³ Yet, whereas the public sector provides the vast majority of financing for infrastructure services, investments have not matched demand, and governments are seeking methods to improve the efficient procurement of infrastructure services.⁴ Public-Private Participation (PPP) in infrastructure is one of the tools in a policy maker's arsenal to help increase investment in infrastructure services and improve its efficiency.

Terminology

PPP is used here in its most inclusive form, to mean any contractual or legal relationship between public and private entities aimed at improving and/or expanding infrastructure services, but excluding public works contracts. The term "government" will be used to mean the level of government responsible for the reform processes, whether it be the federal, state, or municipal government. For ease of reference, the two counterparties to the main project contract will be referred to as the "grantor" on the public side and the "project company" on the private side.

- ³ Calderón and Servén, "The Effects of Infrastructure Development on Growth and Income Distribution," Policy Research Working Paper (World Bank, 2004).
- ⁴ "Sustainable Infrastructure Action Plan FY 09–11," (World Bank, 2008).





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PPP represents an approach to procuring infrastructure services that is radically different from traditional public procurement, with numerous associated challenges. This book provides a practical guide to PPP and is intended in particular for policy makers and strategists needing a good understanding of the key issues specific to PPP development and financing. A particular focus is given to good preparation and thoughtful implementation.

- ➤ PPP projects are often prepared in a hurry, with little funding or expert assistance. This is a critical error. A good feasibility study, performed by PPP experts and focused on all aspects of project viability (in particular, value for money see Box 2.1) is invaluable.
- > PPP projects need to be strategic priority projects, part of a sectorwide strategy and policy framework.
- ➤ The government will play a key role in ensuring the project is implemented properly, monitoring the private investors, and responding quickly and thoughtfully when changes occur or conflicts arise, to avoid potential disputes.

In the world of PPP projects, there are numerous options, structures, solutions, and strategies. There is no perfect approach to PPP, and this book will not endeavor to discuss every option. In the same way, a number of financing options, public and private, are available for PPP. This text will discuss the most risk-specific and



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common mode of financing for PPP, namely project financing, which is also known as "limited recourse" or "non-recourse" financing.

This book represents personal experience in the field and collective shared wisdom from other practitioners. The market for project financing and the risks that parties will accept vary from place to place and from project to project. Given the key relevance of this book to developing markets, it focuses on developing country examples. This text is not a definitive guide to risk allocation and market practice, but rather an introduction to the issues that arise in such contractual structures. Due to the nature of the subject matter of this text, a number of terms of art will be used throughout. The most frequently used terms are defined in the glossary, which may be found at the end of the text.

Key Messages for Policy Makers⁵

- ✓ Be patient. PPP is not a quick fix; it takes time to develop and implement properly. Generally, effort spent in advance of procurement to prepare the project properly will save much more time and frustration later. Think
- ⁵ Throughout the text, specific, candid advice is provided for policy makers. This advice is summary and generic, and should be treated accordingly.



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through contingencies in advance and make sure you are happy with the project structure and specification before going to the market.

- ✓ Prepare well. PPP requires up-front investment of staff and money to develop projects properly, in particular to pay for expensive external advisers. Project development costs the government 3 percent or more of project construction cost. The benefit of this up-front investment is obtained over time, because PPP provides for management and funding for the whole life of the assets and therefore addresses project risks early.
- ✓ Prepare the government to play its part from project development to expiry. Even where a comprehensive PPP is envisaged, the government will play an essential role in monitoring and regulating the project and the sector.
- ✓ Be ready for challenges. In any long-term relationship, change happens. PPP is, above all, a partnership, and it needs to be designed with challenges, changes, and resolution in mind. Problems need to be elevated to appropriate levels of management before they become disputes or worse.

For a more extensive discussion of the issues set out in this book, see Delmon, *Private Sector Investment in Infrastructure: Project Finance, PPP Projects and Risk* (2nd ed., 2009), published by Kluwer International and the World



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Bank, with support from PPPAF. Reference should also be made to www.worldbank.org/pppiresource for further discussion of legal and contractual issues in PPP.

The crisis ravaging the global economy at the time of publication of this book has fundamentally altered the PPP landscape. The implications of such financial and economic crises on PPP will also be discussed herein.

Chapter 1 provides an introduction to the fundamentals of PPP, discussing the nature of PPP and the investment climate needed to attract PPP. Chapter 2 describes how to select a good PPP project and how to prepare that project for implementation. Chapter 3 discusses the financing of PPP, the source of potential funding, how project financing (also known as limited recourse financing) works, and what governments can do to improve financing flows for PPP. Chapter 4 explains the risks encountered in PPP projects, and Chapter 5 describes how those risks are allocated among the project parties through the different project contracts. As will be seen, the approach to risk allocation and project structures differs by sector. Chapter 6 discusses what happens after the contracts are signed, financing is obtained, and the PPP project is implemented. Chapter 7 provides a summary of some of the key risk allocation characteristics of PPP in different infrastructure sectors. Chapter 8 discusses the implications of financial and economic crises on PPP



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and proposes some options to adjust projects accordingly. As annexes, the reader will find a summary of the key messages provided for policy makers, a glossary of key terms, and a list of key readings and web sites on PPP for further reference.

1.1 Fundamentals of PPP

In today's world, infrastructure is primarily a public sector issue, with amounts invested annually in infrastructure by the public sector vastly exceeding that invested by the private sector. PPP is an arrangement for the private sector to deliver infrastructure services for the public sector or to assist the public sector in its task of delivering infrastructure services to the public. Even for most public service providers, private involvement forms an essential part of successful service delivery, whether through construction contracts, service agreements, delivery of goods, or joint ventures. PPP can help mobilize this private involvement more efficiently.

Figure 1.1 sets out a number of commonly used PPP structures.⁶ A few of the key acronyms and terms follow for reference.

⁶ For a general discussion of PPP structures and why current nomenclature is woefully inadequate, see Delmon, "Understanding





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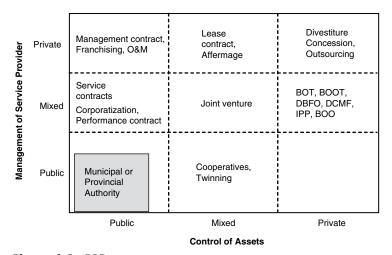


Figure 1.1. PPP structures.

Build-Operate-Transfer (BOT), Build-Own-Operate (BOO), Build-Own-Operate-Transfer (BOOT), Design-Build-Finance-Operate (DBFO), Design-Construct-Manage-Finance (DCMF), and Independent Power Producer (IPP) are similar in nature, looking to the project company to build (or refurbish, if you replace the "B" with an "R") and operate a facility and deliver services to a utility, a service delivery

Options for Private Participation in Infrastructure: Seeing the Forest for the Trees: PPP, PSP, BOT, DBFO, Concession, Lease..." (World Bank, 2010).



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entity (like a health service trust), or the consumer – be it power generation, water treatment, a road, a hospital, or otherwise. The facility may or may not be transferred to the government after a defined period of time (as sometimes indicated by the letter "T" at the end of the abbreviation).

Corporatization involves a utility that is, in public ownership, being run in a manner similar to that of a private sector entity, using incentive mechanisms for staff and management similar to those used in the private sector. For example, a corporatized utility may be structured as a limited liability company, with its share capital controlled by the public, while publishing the equivalent of an annual report containing a profit and loss account, balance sheet, and cash flow data, giving a clear picture of the utility's finances and where any inefficiencies may be found (typical public utilities lack transparency in their accounts, making it difficult to isolate inefficiencies or properly incentivize management).

Franchizing, Cooperatives, and **Twinning** involve using an experienced operator or utility's expertise and reputation through a local company's manpower and resources.⁷

⁷ See the Water Operators Partnerships – Africa, "An Action Program to Enhance the Performance of African Water and Sanitation Utilities" (2008).



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Lease contract, affermage, and **concession** generally involve the project company delivering services directly to the consumer and differ primarily in whether the project company is responsible for new asset investment (e.g., in an affermage,⁸ generally it is not) and whether the project company owns the assets (e.g., in a concession, generally it does).

Performance contracts, service contracts, management contracts, and operation and maintenance (O&M) contracts are structures whereby a private company provides services to a utility/grantor (e.g., management services, improving billing and collection services, leak reduction, or marketing), with payments generally linked to performance.

There is a degree of confusion in the use of the term "affermage." Certain authors have suggested that affermage agreements do not involve any obligations to make capital investments (see, e.g., Guislain and Kerf, Concessions – The Way to Privatize Infrastructure Sector Monopolies, Viewpoint, Note No. 59 (World Bank, 1995) and Hall, "Public Partnership and Private Control – Ownership, Control and Regulations in Water Concessions in Central Europe" (May 1997), at http://www.psiru.org). In contrast, other authors have asserted that affermage agreements can include an obligation to make capital investments, so long as the cost of the investment can be recovered during the lifetime of the agreement (see, e.g., "Third Party Access in the Water Industry," (Tasman Asia Pacific), at http://www.ncc.gov.au).