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Infrastructure PPPs in the most challenging developing countries: Closing the gap

Patricia O. Sulser

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Infrastructure PPPs in the most challenging developing countries: Closing the gap

Some observations and recommendations from a seasoned practitioner for overcoming the obstacles, avoiding the pitfalls and optimising the opportunities

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PREFACE

This publication started from my attempt to compile and collate over 25 years' worth of practice notes, checklists, analyses and guides on various aspects of public-private partnerships (PPPs). I had written the papers for myself and for colleagues in the International Finance Corporation (IFC) legal department and for colleagues doing investment and advisory work. At some point, I shared bits and pieces with colleagues at the World Bank and the Multilateral Investment Guarantee Agency (MIGA) and other development financial institutions through a collaborative group we had formed. The group was committed to structuring and implementing long-term PPPs that balanced the important interests of our member countries and private sector stakeholders and communities. Some of my analyses and materials were adapted for presentation as feedback from the World Bank Group (WBG) to governments wishing to understand the perspective of the private sector and its requirements. (Areas of interest included sovereign financial and political support, and foreign exchange requirements.) The focus of this feedback was on what other similarly situated countries found to be effective in developing a PPP/private sector infrastructure market and attracting and sustaining the interest of private investors and lenders.

Later, it seemed to me that other stakeholders and their advisors outside our WBG bubble might benefit from these observations and practical suggestions. I thought particularly of those stakeholders who would want to know more about the rationale behind both the public or private perspective. I was especially committed to sharing my own perspective about what I had found to work and what could work again, be replicated and scaled up, in the poorest and most challenging developing countries**.** Magically, it seemed, after two or so years of moonlighting, I had pulled this publication together. The aim was to offer my observations based on successful PPPs in some of these countries. I wanted to share the successes of some PPPs so that those countries and others who so sorely needed a functioning and accessible infrastructure could replicate them. The hope is that this will go some way to improving the daily lives of their citizens, to expanding their economies and to alleviating poverty.

In the meantime, I note that, in the last few years, an increasing number of quality knowledge platforms dedicated to or addressing PPPs has emerged. They bring additional sophisticated and in-depth perspectives from PPP experts around the world, especially guidance for governments regarding PPP legal and regulatory policy and contractual arrangements. For example, an internet search of 'PPPs in developing countries' instantly yields numerous references to the excellent collaborative platform called the PPP Knowledge Lab, which includes a wonderful 'living' publication called the PPP Reference Guide Version 3.0. The PPP Knowledge Lab is sponsored by the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IaDB), the Islamic Development Bank (IsDB), and the WBG, with support from the Public-Private Infrastructure Advisory Facility (PPPIAF).

Other top hits include the PPP in Infrastructure Resource Centre (PPPIRC), the United Nations Development Programme (UNDP), the OECD, and databases such as the Augmented Sustainable Livelihood Framework (ASLF), the International Chamber of Commerce (ICC), OECD, and the UN G20. I have referenced these throughout this publication, where relevant. This publication is intent on making practical suggestions and recommendations that may supplement some of these excellent sources, with the focus on a subset of developing countries, which are the poorest and most underserved countries, including fragile and conflicted affected states (FCS).

I wish to thank the legal department of IFC for its support in making this publication a reality. I hasten, however, to add that neither IFC nor any other part of the WBG has endorsed this publication or any part of it. The findings, interpretations, conclusions and views expressed in this publication are my own and should not be attributed in any manner to any part of the WBG, any WBG officer or director, the WBG's boards of executive directors, or the governments they represent.

My personal thanks go to my colleague Julian Jackson who generously provided detailed feedback and excellent guidance and perspective from his extensive experience before joining IFC and during his time at IFC representing governments around the world in successfully implementing PPPs. Special thanks and gratitude as well go to my personal editor, Catherine Garson, who retaught me how to write through this process. Finally, I would like to thank my editors at IFLR, Annette Gray and Amélie Labbé.

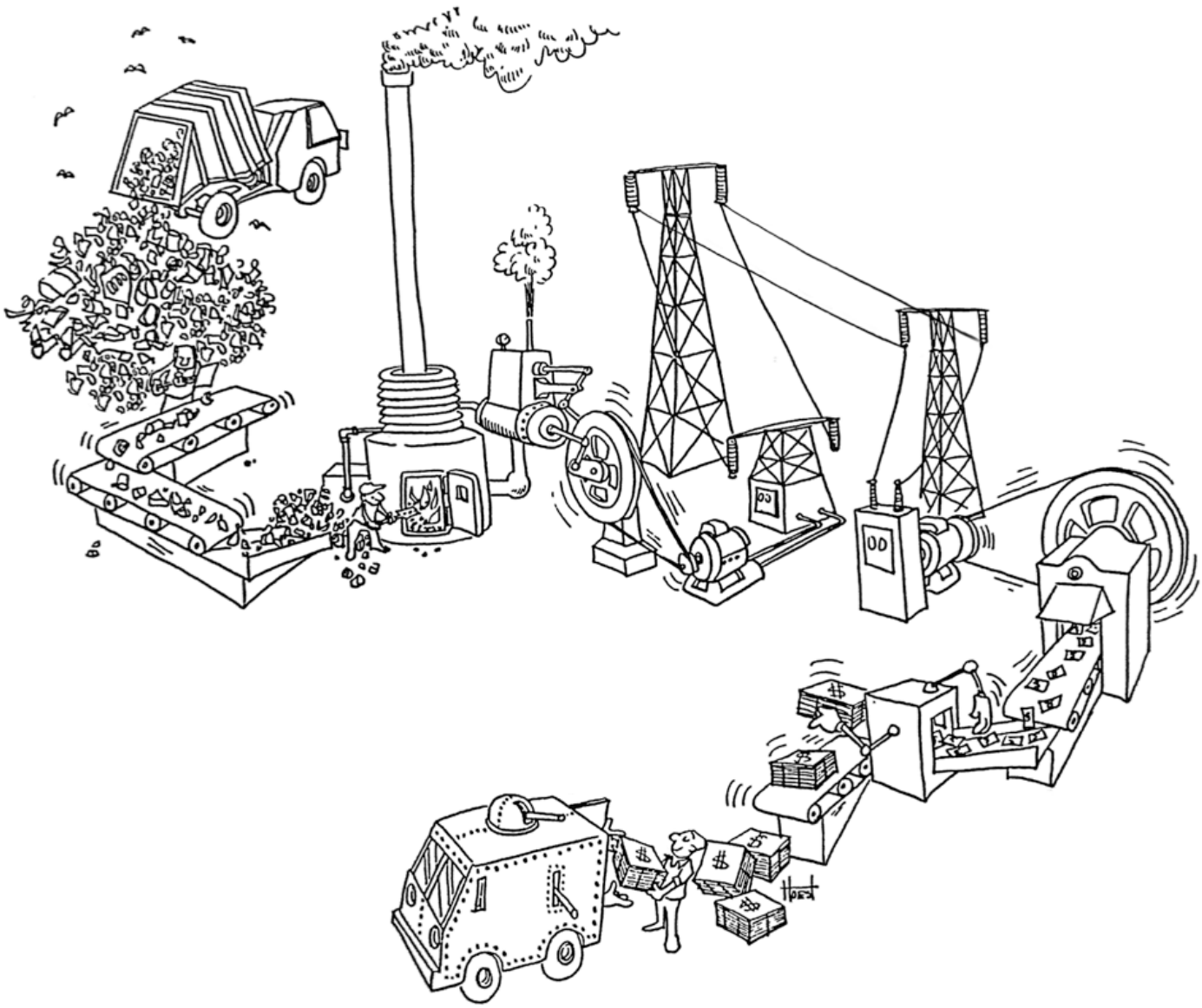

Illustration by internationally syndicated cartoonist Bill Hoest, author's step-father,
for an early renewable energy project "bible"

ABOUT THE PUBLICATION

ABOUT THE AUTHOR

Patricia O. Sulser is Chief Counsel and Global Legal Team Leader and on the Investment Committee for IFC InfraVentures established by International Finance Corporation (IFC) in 2008 to fund and proactively develop private and public-private partnership infrastructure projects in multiple sectors in developing countries.

Prior to joining IFC, she was an associate in the New York and London offices of Shearman & Sterling. Her practice of over 30 years has been primarily in the field of infrastructure projects, investments and financing, with a special concentration in projects in lower-income and fragile and conflict affected countries. She has structured, drafted and negotiated all types of project and investment documents with private and public stakeholders.

She is a certified mediator, Fellow of the Chartered Institute of Arbitrators and an active proponent of alternative dispute prevention and resolution processes in international development projects. She is also a member of the Albright Institute for Global Affairs' Ambassadors Council.

CHAPTER 1

The context: the scarcity of infrastructure in developing countries

Well-functioning and accessible infrastructure is fundamental to social and economic development

Well-functioning and accessible infrastructure is fundamental to social and economic development. Among other things, infrastructure provides vital life necessities (such as clean water, power and cooking gas) to a country's citizens and businesses, and connects them to their jobs, healthcare facilities and schools. Infrastructure also supports the physical transportation of goods to market and the virtual connection of markets to one another to enhance trade.

The scale of the infrastructure backlog in developing countries is alarming

Yet the scale of the scarcity of basic infrastructure historically provided by governments in many developing countries is alarming. According to the WBG, as of March 2017, despite some progress:

- more than 660 million people lack access to a clean source of drinking water
- water scarcity affects over 40% of the global population and is expected to rise
- several hundred thousand children die each year from preventable water and sanitation-related diseases
- approximately one billion people worldwide live without access to electric power
- nearly three billion people use wood, coal, charcoal or animal waste for cooking and heating, causing health risks
- congested and inadequate ports, airports and roadways also impede economic growth
- about one billion people live without access to an all-weather road, restricting health, education, employment and trade.[1]

It is estimated that to close the gap by 2030, over $1.9 trillion per year will be required in developing countries alone

According to McKinsey in its seminal 2016 report, 'Bridging Global Infrastructure Gaps',[2] a total investment of $3.3 trillion per year will be required to close the gap on infrastructure, until 2030, with over $1.9 trillion per year required in developing countries alone. Developing countries spend around $1 trillion a year on infrastructure, the vast majority (80%) of which comes from the public sector. Thus, the gap in required infrastructure investment in developing countries by 2030 is over $10 trillion (or about $900 billion per year).[3]

And yet, governments around the world, particularly in developing countries, are constrained more than ever, and unable on their own to deliver the public services required.

Governments experiencing resource constraints need private sector involvement

This is especially the case in lower-income and fragile and conflict-affected developing countries that have increasing demands on their budgets and often dire or deteriorating conditions on the ground.

A public private partnership (PPP) could be a viable option

The private sector is becoming increasingly essential to support the budgets of governments to deliver basic services. It is also seen as a critical potential source of innovation, discipline and quality for these services, as well as providing essential resources to administer the services. In the context of severe infrastructure backlogs and limited public funds and capacity for addressing the problem, one viable option for private sector resources to be mobilised to address this daunting challenge is the PPP.

A PPP can be defined 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 substantial risk and management responsibility, and remuneration is linked to performance.'[4] Crucially, in the provision of the public asset or service, the private party specifically undertakes the primary responsibility to deliver the design, feasibility, construction and implementation, and operations and maintenance of the project.

PPPs can bring efficiency and sustainability to basic public services, such as water and power supply

Especially in the developing world, PPPs can enhance the scope, quality and timely delivery of basic public services. When designed well and implemented in a developed, balanced and predictable regulatory environment, PPPs can bring efficiency and sustainability to public services, such as water supply, sanitation, energy, transportation, telecommunications, health and education, and even to such services as prison operations and garbage collection.[5] (See Annexure 1 for a breakdown of the number of PPP projects carried out in individual developing countries between 2007 and 2017.)

In summary, PPPs can support governments in the provision of public infrastructure by providing:

- additional sources of funding and financing when there are insufficient public funds
- flexibility in the allocation and prioritisation of fiscal resources
- technical expertise and innovation
- efficient project management and operation based on incentives
- capacity to administer the asset or service throughout its life.

PPPs can be aligned with some of the sustainable development goals

Public-private partnerships are attractive to governments and government entities, the G20,[6] the United Nations, and many DFIs because of their strong potential to meet the gap in critical infrastructure and public services. They can thus be an important engine of growth throughout the economy and a means by which poverty can be dramatically reduced, or, ideally eliminated, around the world by 2030.[7]

Despite a number of failed PPPs in both developed and developing countries, there have also been many successful PPPs. There is still a good deal of confidence in the potential impact and value for money of well-selected and well-structured PPPs, in the right conditions, to deliver the basic infrastructure and services required to improve lives in developing countries. The PPP delivery model is also able to contribute to a number of the United Nations' sustainable development goals (SDGs) adopted in September 2015 – including water supply and sanitation (SDG 6), education (SDG 4), affordable and clean energy (SDG 7) and other traditional infrastructure including health, roads, rail, airports, and ports (SDG 9).[8]

But certain obstacles can deter the private sector

However, even though a country may want to attract the private sector to accelerate and improve its infrastructure development, there can be a range of obstacles in its way.

Some developing countries present particularly risky environments for successful PPPs

While every country is different and has its own complex political, social and economic history, there are a number of common factors that could deter the private sector from getting involved. These include: unreformed sectors; undeveloped regulatory frameworks; limited technical and managerial capacity on the public side; political and country risks; government being equivocal about partnering with the private sector; an unstable fiscal environment; and, governance issues.

And in developing countries with acutely or chronically difficult environments, some of which could be classified as fragile or FCSs, the challenges are even greater. While the reasons for this classification vary, the OECD Principles for Good International Engagement in Fragile States (OECD 2007c) describe FCSs as facing development challenges 'such as weak governance, limited administrative capacity, chronic humanitarian crisis, persistent social tensions, violence or the legacy of civil war.'[9] So while PPPs may not be practicable until some of these factors have changed, experience has shown that PPPs are possible even in the hardest of circumstances. As countries have varying degrees of institutional development, governance, or capacity in place, private sector engagement must be tailored to each country's specific context, and PPP structures adapted appropriately to each such context.

The private sector requires minimum assurances before coming on board

At a minimum, the PPP structures that have been tested and work well in developed countries or other developing countries must usually be adapted – and sometimes substantially – in the initial round of PPPs to be undertaken in developing countries with challenging environments. This is necessary to address the differences in these conditions and especially the concerns of investors and lenders that are unfamiliar with or wary of the environment: they may want or need to adjust their return requirements exponentially to reflect the higher actual or perceived risks.

DFIs can play a crucial role in PPPs in developing countries

This is true even for private companies, investors and financial institutions that are committed to the 2030 objective of eliminating poverty and have robust corporate social responsibility objectives and targets that influence their strategies and investments.[10] And other financial stakeholders, such as providers of concessional or low-cost financing, donors and philanthropic organisations, also need to be comfortable with the risks to be borne and be assured of the value that their contributions will bring.

DFIs and PPPs

Development finance institutions have a deep, historical involvement with PPPs. They are frequently involved when PPPs are undertaken in developing countries with challenging environments for business and investment, and with little or no track record in PPPs.

Development finance institutions are generally organisations formed by treaty among developed and developing member countries. They are multilateral or bilateral institutions that have been formed with the specific purpose of alleviating poverty in their developing member countries through, among other things, investments made on commercial terms. They are often the only lenders willing to continue lending in certain countries or in challenging times. In addition, they can provide guarantees and insurance products that reduce the risk for private investors. Where they do not provide formal political risk protection, their involvement can nevertheless provide some political comfort because of the DFIs' relationships with their member countries and their willingness to lend in stable and less-stable times. These organisations also often have a certain amount of funds that can be made available on concessional terms to bring the project costs down or support the ability of consumers to pay for the project's services. They can also commit resources to support the capacity of the government to plan and implement the PPP.

The WBG, for example, has been active in bringing the private sector to the delivery of public services. It has supported the collaboration of private and public players, especially in the infrastructure sector, since the establishment of IFC in 1956, though these engagements did not use the PPP label until later.[11] Over the last decade or more, the WBG has expanded its support of infrastructure and basic public services through PPPs,[12] as have other multilateral and bilateral DFIs. These include the EBRD, the IaDB, the African Development Bank (AfDB) and the ADB, among many others.[13] In addition to providing needed capital for PPPs, many of the DFIs provide policy advice for regulatory and institutional reforms, PPP transaction support, and capacity-building, analytical and advisory activities, as well as project preparation funding and support.[14]

The focus of the DFIs most recently has been on how to improve the success rate of PPPs. One of the key tools to improving this success rate is set out in the WBG's March 2017 'Forward Look: a Vision for the World Bank Group in 2030 – Progress and Challenges'. In the report, the WBG commits to 'crowding in' private sector investment and 'creating markets' through a new systematic and collaborative 'cascade' approach. The cascade approach commits the WBG to first mobilising commercial finance, supported and enabled by any necessary or desirable upstream policy reforms to address market failures and other constraints to private sector investment at the country and sector level. These policy impediments are to be identified through systematic diagnostic tools developed with member countries. In addition, in situations in which risks remain high, the WBG is committed to supporting structures with guarantees and other concessional and risk-sharing instruments.[15] The DFIs are generally committed to coordinating their efforts in the PPP space along the lines outlined by the WBG.[16]

This publication will show that successful PPPs are possible – even in the most challenging environments

This publication has been written for practitioners and stakeholders in infrastructure PPPs in developing countries where the conditions for involving the private sector in the delivery of infrastructure have not been sufficiently established; or where events have occurred that have dampened the appetite of investors and lenders. Some of these countries are lower-income developing countries; some are FCS countries; and some are simply developing countries that have not yet been able to attract private investment on a sustained basis, even though they are not on the lower income or FCS scale. These are the focus countries of this publication.

There have been successful PPPs in developing countries in difficult environments and conditions. The success can largely be attributed to careful planning and structuring, committed and flexible private partners, and especially courageous leadership on the part of governments. The involvement of some innovative structures and financial instruments to address certain risks has been a factor, too; as has a fair bit of alignment of many stars. The publication highlights the lessons learned from these countries' experiences with PPPs.

This publication is for governments and contracting authorities keen to explore infrastructure PPPs as an option

To governments and public contracting authorities that are keen to explore and possibly adopt a PPP approach, this publication intends to highlight what conditions or protections potential lenders and private sector investors and companies are likely to seek before they commit their finance and other resources, and why. And to private party stakeholders and lenders, the publication aims to explain why governments may seem to be inflexible and resist the private sector's requests for protection, and want to shift certain risks that are beyond anyone's control to the private stakeholders. It also articulates why the private sector may resist taking certain project risks, which can help the private sector explain to its public sector counterparts about both the drivers and deterrents in a private sector stakeholder's decision to commit to a project in their country. And finally, this publication shares the PPP experiences in especially challenging environments that have worked and effectively balanced the interests of the public and private stakeholders in the early round of PPPs in the country.

…and potential lenders, investors and developers

This publication is specifically not intended as a definitive and detailed economic, legal, policy or other PPP treatise, especially for PPPs in developed countries or some of the larger developing countries, like China or India. There are many high-quality professional treatises and texts on the market designed particularly for governments and their advisors.[17] Rather, it is intended to share one international development practitioner's experience over several decades on the ground in some of the world's lower-income developing countries, including fragile and conflict-affected states, and certain other challenging circumstances. Observing the implementation of PPPs in these extremely challenging socio-economic environments, this publication highlights what has worked, what has not worked, and why.

The publication aims to show how pitfalls can be avoided and opportunities optimised

To this end, the publication provides some detail on the nitty-gritty of what private investors and lenders typically require in their financings of PPPs. It explains why the protections these stakeholders seek are often more stringent in less-tested developing countries or countries undergoing difficult circumstances. The increased protection and risk aversion in relation to these countries or underserviced regions, may be unwelcome in the very markets where more risk should be taken by all public and private stakeholders to make a dent in the vast need for public services in those countries. But when governments do initially take on what may appear to be a disproportionate level of risk for a PPP, if it is successful, they will be building a track record, which will lead to a virtuous circle of more private sector investment and on more favourable terms. So hopefully the publication will demonstrate how important it is to have these checks and balances in place if PPPs are to start gaining traction as a viable solution to these severe infrastructure challenges.

…and gives some examples of successful PPPs across the developing world

Endnotes

1. http://www.worldbank.org/en/topic/publicprivatepartnerships/overview; http://www.ifc.org/PPP; http://www.unwater.org/water-facts/scarcity; https://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/bridging-global-infrastructure-gaps; http://www.un.org/sustainabledevelopment; https://www.pwc.com/gx/en/industries/assets/pwc-giia-global-infrastructure- investment-2017-web.pdf
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3. http://ppi.worldbank.org/; https://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/next-generation-of-infrastructure
4. https://pppknowledgelab.org/guide/sections/1-introduction; http://ppp.worldbank.org/public-private-partnership/overview/what-are-public-private-partnerships. The PPP Knowledge Lab is a resource for governments and their advisors regarding the design and delivery of PPP infrastructure projects. It was established in 2015 by the ADB, the EBRD, the IaDB, the IsDB, and the WBG.
5. http://www.worldbank.org/en/topic/publicprivatepartnerships/overview; https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/documents/Benchmarking_PPPs_2017_ENpdf.pdf
   Note that mining and certain telecommunications (such as mobile telephone operation) as sectors are not included in this list, because 1) the benefits are often unregulated and not provided to public consumers, and, 2) in many countries the assets or services are owned by the private sector and not directly provided by the public sector to users.
6. http://www.ipsnews.net/2015/09/g20-finance-ministers-committed-to-sustainable-development/
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11. http://www.worldbank.org/en/about/history; http://www.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/about+ifc_new/ifc+history/50s+and+60s
12. http://lnweb90.worldbank.org/OED/OEDDocLib.nsf/DocUNIDViewForJavaSearch/2CF1B944729750E885257B4E0050BAA0/$file/WBG_Support_PublicPrivatePartnerships_ApproachPaper.pdf; https://ieg.worldbankgroup.org/blog/creating-markets-are-ppps-answer
13. Bilateral DFIs include CDC, Proparco, FMO, DEG and OPIC. For more examples, see http://www.ebrd.com/infrastructure/infrastructurePPPs.com
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    EBRD and DEG, for example, have infrastructure project preparation facilities. http://www.ebrd.com/infrastructure/infrastructure-IPPF.com; https://www.deginvest.de/DEG-Documents-in-English/Range-of-Services/Special-Programmes/DEG_developPPP_Overview_2017_05.pdf
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CHAPTER 2

The nuts and bolts of infrastructure PPPs

Introduction

Infrastructure PPPs are complex undertakings. They involve multiple phases, multiple players and complicated negotiations. To a government that is unfamiliar with the PPP model and approach, giving the private sector the space that it needs and ceding important control for the duration of the project can be challenging. This chapter will hopefully be informative and helpful in describing the essentials of an infrastructure PPP, showing how all the components work together.

About this chapter

This chapter expands on the definition of PPPs, looking at the essential differences between this and the more conventional public procurement practices. The discussion moves on to types of PPP contracts and funding arrangements that are relevant to infrastructure development in the focus countries of this publication.[1] A table summarises how the different responsibilities are shared between the public and private sectors. This is followed by examples of successful PPPs in four countries, which are covered in more detail in Chapter 6. The chapter concludes by looking at the hard realities of PPPs, explaining why they are not a guaranteed cure for a country's infrastructure challenges.

PPPs: an expanded definition

There are many different definitions of a PPP, with no single definition capturing the complexity of the term or concept and its application in all contexts.

For the purposes of this publication, as a reminder:

> A PPP can be defined 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 substantial risk and management responsibility, and remuneration is linked to performance.'[2] Crucially, in the provision of the public asset or service, the private party specifically undertakes the primary responsibility to deliver the design, feasibility, construction and implementation, and operations and maintenance of the project.

How a PPP is different from the public procurement method

This definition is relatively simple and captures several important distinctions of the PPP model compared to the classic public procurement model. First, the project design is done by the private party in response to an articulated need and objective of the problem. Second, there is the continuing involvement and responsibility of the private party in the operation of the asset or service. This is very different from the private party handing over the asset or service to the government for operation and maintenance after construction or implementation. The third distinguishing feature is the private stakeholder's financial exposure and incentive to undertake the continuing operations and maintenance, and to be fully compensated for implementing the project and continued involvement in it, if it performs as agreed.

According to many development professionals, best PPP practice is to define a PPP's requirements in terms of outputs rather than inputs, in contrast to a conventional public procurement, which focuses on inputs.[3] While there are variants along a continuum, in a typical procurement for a wholly publicly owned and operated asset or service, the government or its contracting authority might, for example, choose a site or region and identify the detailed specifications and design for the asset or services (inputs). It will then ask the bidders to provide the cost that will be charged for the asset or service. The winning bidder then builds or implements the requested work according to the government's specifications or inputs and delivers the completed work to the government for the government to maintain, manage and operate. After the delivery to the government, the private player is usually no longer a stakeholder in the project.

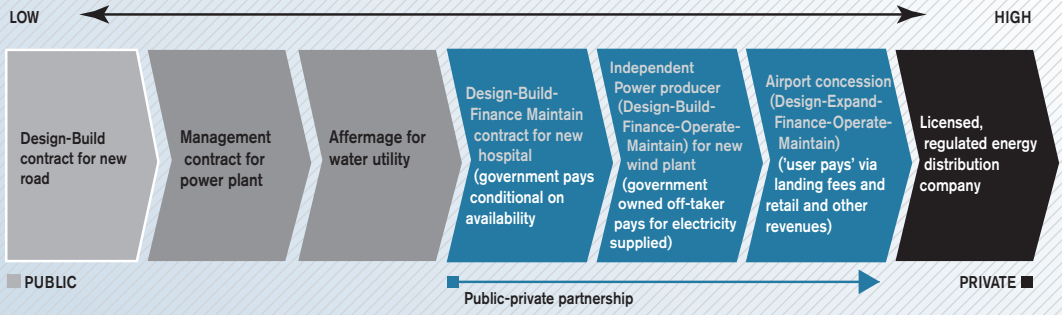
In contrast, for PPP projects, governments typically specify a clear set of output requirements for a particular public service, based on performance and service quality standards. Bidders are then invited to propose different ways to tackle the problem. The government or its contracting authority is more interested in the quality and cost of the solutions than on the inputs. In the energy sector, bidders might, for example, recommend a particular type of power generation project – for example, thermal or renewable energy – in response to the government's need to supply power to its population in a certain region. The bidders might also propose a particular site based on preliminary resource studies and location of any required associated facilities, a particular configuration and type of equipment, and costs of building and operating the asset or services. This could include the tariff that will be required to be paid by the public sector or end-users over the life of the asset or service.

Sharing of responsibility between public and private parties

Public-private partnerships can therefore involve a fundamental shift in the way projects are prepared and in the information that a government must provide to private sector operators. As a result, the expense and time-consuming technical design activities for a project can be carried out by the private partner, rather than by the government.[4] The allocation of these responsibilities between the government and the private sector varies along a continuum as shown below.

Figure 2.1 shows the continuum of private sector participation in infrastructure development, with the amount of private sector responsibility increasing from left to right.

Figure 2.1: The extent of private sector participation



Source: https://pppknowledgelab.org/guide/sections/6-ppp-contract-types-and-terminology

It may not be possible to achieve the maximum private sector participation in the publication's focus countries. In these cases, private sector participation may need to be limited to portions of the design, implementation and management of the proposed infrastructure operations. This publication assumes a structure that involves a maximum degree of private sector participation, given that this is the goal of many governments experiencing constraints in financial, technical and managerial resources.

In countries committed to transparency and the most efficient commercial arrangements, the government typically identifies a proposed private sector partner through a competitive tender process, often open to international players. The government may undertake the tender process in stages, including a pre-qualification stage during which a list of qualified parties is identified. Thereafter, the government might wish to invite qualified bidders to engage in competitive dialogue or to consider variants of initial design proposals. Once the government or contracting authority identifies one or more solutions that seem to address its requirements, it may invite the short-list of bidders to make final proposals, and then select the winning bidder.[5] For the purposes of simplicity, this publication assumes that the private partner has been selected through a competitive tender process and that the private partner is expected to take on a substantial part of the design and preparation of the PPP project.

Risks and value for money

In PPPs, risks are normally allocated between the public and private stakeholders based on their capacity or willingness and incentive to control and manage such risks at the lowest cost, and based on whether alternatives to the proposed PPP project and its structure realistically exist at the time or will in the near future.[6]

While contracting government authorities may be attracted by the notion of passing risk on to the private sector, they need to have an in-depth appreciation of the terrain from the private sector's perspective. The private sector players must, conversely, be prepared to take on full responsibility for their technical and financial ability to deliver as agreed, and to take the long view on their commitment.

In the focus countries, there can be a need for governments to shoulder more risk and make more progress with sector reforms than other countries. (This could also include the involvement of DFIs.) Then once there is an established record of successful PPPs, private investors will become more comfortable with committing their investments.

In order to attract sustained private sector involvement, governments should ideally make efforts to improve legislation, build capacity and cultivate a positive climate for investment. In many cases, these factors within the control of the government can help to counterbalance other kinds of country and political risks that cannot be fully anticipated or controlled.

More specifically, governments can try to ensure:

- sound and committed leadership
- security and the rule of law
- an overall approach of integrity and transparency
- procurement processes that are open and transparent
- an adequate legal and regulatory framework and progress with sector reforms (including independent tariff-setting mechanisms that allow for cost recovery and a return to investors)
- effective means of resolving disputes and pursuing rights and remedies in international courts or arbitral tribunals and enforcing them locally
- the ability to collect revenues and tariffs
- the affordability of the tariffs for local users and if not, local government and donor support to bridge the gap
- the ability to ring-fence and expatriate foreign currency revenues.

Types of PPP contracts

Public-private partnerships are useful for funding both greenfield projects – that is, projects starting from scratch; and brownfield infrastructure projects – that is pre-existing projects that are being rehabilitated or expanded (and generate revenues already). This publication concentrates on PPPs funding greenfield infrastructure projects, though the observations can be useful in the analysis of brownfield projects as well.

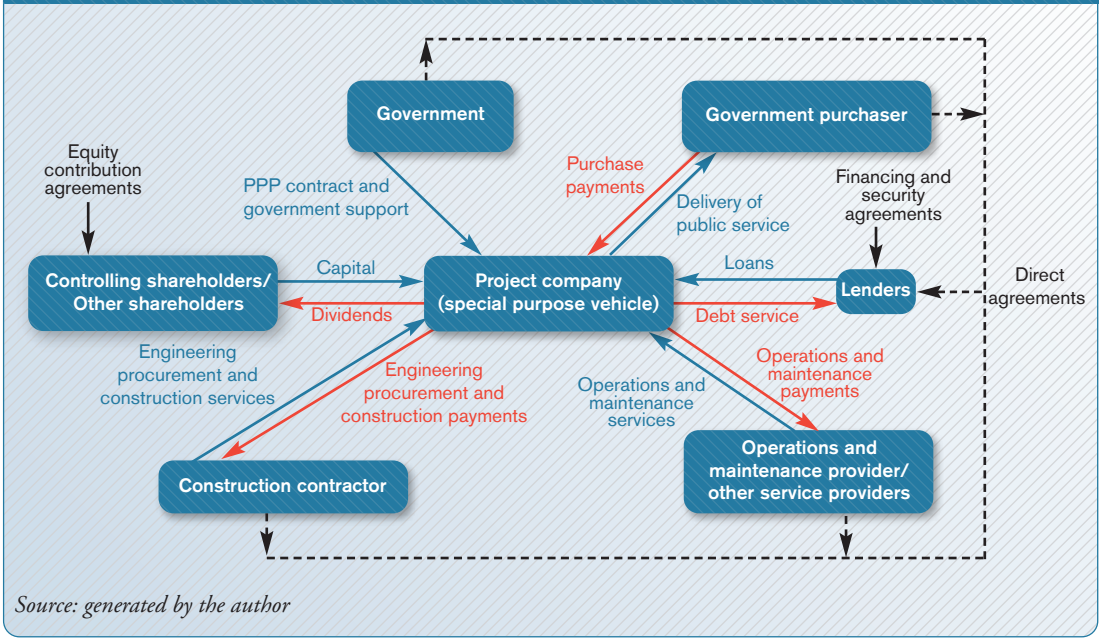
Typical PPP project structure

There are many kinds of PPP structures. Figure 2.2 shows a typical PPP structure that involves a separate legal entity established by the private sector winning bidder for the sole purpose of implementing and operating the project. It is known as a special purpose vehicle (SPV) and delivers the project through a project finance structure. The SPV and project finance structure is among the more common PPP structures in the focus countries, as the private sector players are more comfortable with it and willing to be engaged over the long term with the protection it affords. This is because the project's finances are ring fenced and off the private party's own balance sheet.[7] The principles underpinning the structure are, however, instructive for all kinds of PPP contracts.

How the private party is paid

The private party can be paid by collecting fees from service users, by the government, or by a combination of the two. The critical feature is that payment is contingent on performance. The payment structure is usually determined by legal, regulatory and practical parameters. This includes the ability of the project company to collect or provide services directly to end-users, and the obligations and capabilities of the government purchaser and end-users to pay.

Figure 2.2: A PPP contract structured around a special purpose vehicle



Source: generated by the author

- In government-pays PPPs, the government or, more commonly, a government entity is the only source of revenues for the private party. (This is usually called a single buyer or 'off-taker' regime.)
  - Full payment being made is contingent on the delivery of the agreed availability or volume. For example, if a road has been developed to the agreed quality, the government will make periodic availability payments. A volume-based payment would be for services delivered to users, such as the provision of health care to consumers. Payment is reduced if performance is not met.
  - There can also be a combination of quality and quantity criteria. An example is an independent power project in which a government distribution company buys all the output and delivers it to consumers.

- In user-pays PPPs, the private party provides a service to end-users and generates revenue by charging and collecting from users for that service. An example is a toll road. These fees (or tariffs, or tolls) can be supplemented by government payments. For example, the government may make complementary payments for services provided to low-income users when the tariff is fixed; or it could make supplemental payments, reflecting the expected traffic volumes to mitigate the risk to the project company of the commissioned road not being used as the government had forecast. (These are called shadow payments.)[8]

In all cases, payments are contingent on the private partner delivering according to performance standards agreed in the contract. This is how the private party is incentivised. If the performance falls below a minimum standard, payments can get reduced or withheld. If poor performance persists, the government has the right to terminate the contract, and the project company and its investors and lenders may lose some or all of their investment. This is intended to be a major motivation for the private partner to perform as agreed.

This publication focuses on the government-pays mechanism because it is a common and relatively simple structure. It is particularly applicable in the focus countries of the publication – where the basic public services interpose the government or a government entity between suppliers and the users of the public service. It is also worth noting that many of the issues arising in the government-pays model are also relevant to other PPP structures.

Roles and responsibilities

While there is always collaboration between the parties and variation depending on the circumstances, this table shows which party takes the lead in the broad allocation of roles and responsibilities. It is based on a government-pays model.

Government	Government purchaser	Private operator
Decision to use PPP structure		
Competitive tender and award of concession or rights to the private partner		Proposal in response to tender
Granting of exclusive rights to design, own, build and operate the project Sharing of any preliminary feasibility studies		Feasibility studies and resource validation and other project development activities
General assurances to support the private partner: from the project development phase through to the construction and operation of the project		Final design and liaising with government purchaser to fit project into system
Liaising with relevant ministries		
Support in obtaining permits and meeting other conditions to ensure effectiveness and financial close under the project documents		Applications for all permits and environmental and social impact assessments and community engagement
Any public (and sometimes private) land, land rights, easements and rights of way for construction and operation		Land rights acquisition not managed by government
Foreign currency assurances	Payments in agreed currency or indexed to the currency	Mobilising debt and equity and political risk protection (as required)
Tax arrangements	Constructing any necessary ancillary infrastructure	Engaging contractors and operations and maintenance providers. Construction in accordance with promised quality and on time and on budget
Political force majeure protections during operation and termination	Commercial commitment to buy all delivered and/or available output.	Operation and maintenance in accordance with key performance indicators (KPIs)
If applicable, indemnity to political risk provider		

Examples of successful PPPs

A number of projects have been selected to highlight and illustrate particular issues covered in this publication. While these projects share a number of features that characterise the type of PPP covered in the publication, the issues discussed can be broadly relevant to any PPP.

In all cases:

- The PPP was based on a project finance structure: this means that debt and equity investments are designed to be recouped only from the cash flow of the project.
- The model is the single-buyer, as opposed to the user-pays model: this means that the market risk is contractually borne by the government or government-purchaser.
- The single buyer or purchaser is usually a government entity and the only legally authorised entity to supply to end-users.

A snapshot of the case studies

While details of each project are given in Chapter 6, here is a snapshot of some of the important features of the projects:

The Pamir energy project in Tajikistan

The project shows:

- how project participants must adapt to unexpected and changing circumstances
- the importance of committed controlling shareholders, investors and government
- the affordability of the project's output and the willingness of users to pay.

The Dakar-Diamniadio toll road in Senegal

The project shows:

- the importance of the public and private parties' commitment to each other
- the importance of market forecasts and affordability of tariffs
- familiar project risk allocation with robust protection for government and country risks during operations and termination
- the follow-on effects of a government's commitment to sector reforms and respect for their obligations, providing added comfort to other private sector players to participate in multiple infrastructure sectors.

The Seven Sisters renewable energy projects in Jordan

The projects show:

- the commitment of government to the development of the renewable energy sector
- flexibility in their approach to find private partners
- the power of a coordinated and standardised approach to processing multiple projects, as well as using a risk allocation structure familiar and comforting to the private sector participants.

The Azito gas-fired power project in Côte d'Ivoire

The project shows:

- how PPPs can survive difficult conflict situations. In Côte d'Ivoire, where the PPP partners continued to deliver electricity to its customers during the country's civil war
- how the public sector's commitment to its contractual obligations has provided critical comfort to the private sector players, thereby prompting other investors to bring their resources to bear in other projects in the country.

See Chapter 6 for a full description of the four projects.

The hard realities of PPPs

There are problems that PPPs cannot solve, or that PPPs may in fact exacerbate.

Public-private partnerships may appear to relieve public funding and other resource constraints more than may be achieved, as government's financial and management commitments to PPPs can still be substantial and sometimes are not evident up front. For example, the government may need to invest in expensive and time-consuming sector analyses to decide which projects are a priority and which should be pursued as PPPs. They may also need to contribute funds to the costs of the project, and they may need to promise to make certain payments to support the private sector's participation over the life of the project. This can all have an effect on the public budget. (This is discussed in more detail in Chapters 4 and 5.) And while PPPs can contribute to better project and sector analyses as well as innovative solutions, responsibility for planning, procurement and project selection as well as overall supervision remains primarily with the public sector. (It would be similarly responsible if undertaking the project on its own.) PPPs can also be or appear to be expensive for users of the public asset or service, as tariffs may be higher than previously or higher than in other countries.

When doing the value-for-money analysis the benefits need to outweigh the costs of doing the project in another way. A PPP project yields value for money if it results in a net positive gain to society which is greater than that which could be achieved through any other type of procurement practice. It is good practice to carry out a value-for-money analysis (essentially a cost-benefit analysis) as part of the initial preparation of a project, regardless of whether it is procured conventionally or as a PPP.[9]

Not all infrastructure projects are suited to the PPP model. When they prioritise their infrastructure projects, governments need to be sure that they have selected the right form of procurement. This publication is written on the assumption that the decision to do a PPP has already been made.

So PPPs are not a magic bullet, and the presumed economic and political benefits underpinning PPPs can be controversial. Public-private partnerships are usually selected as a structure to deliver public services that have historically been difficult, if not impossible, for governments to deliver. They are usually high-profile projects and the public may regard them with skepticism and distrust. These projects are also complex and long-term, and many things can (and do) go wrong just as in other complex, long-term projects. This does not always mean that there is a fundamental problem with the project, but problems can draw criticism and further questions about the involvement of the private sector in the delivery of public infrastructure and services, and PPP mechanisms.

For example, to someone who does not have a great deal of experience implementing infrastructure projects and specifically PPPs, there might be the perception that the private company making a profit is motivated by greed, that the due diligence carried out is excessive, and that risk allocation among the parties is unfair. Or it may appear that the poorest countries that are in most need of infrastructure development are having to shoulder a disproportionate amount of risk.

There is no denying that the private sector gets involved in PPPs to reap rewards. Depending on the type of investor or financial institution, the impetus for most investors and financial institutions is still largely the desire, and indeed the need, to earn returns commensurate with the risk of the investment (so-called risk-adjusted returns) for the benefit of their respective investors. Conversely, governments and local communities, as well as other stakeholders, want to avoid overcommitting to private sector requirements or demands. There may be fundamentally differing views on the kinds of rewards the private sector should earn, and on the tradeoffs a government should accept when it agrees to partner with the private sector. In more developed markets with a track record of private sector investment and operations and private-public sector cooperation in the delivery of public services, standardised ways of addressing the respective parties' appetites and imperatives for risk and reward have been devised. This includes formulating incentives for good performance and allocating the PPP risks among the various PPP stakeholders to the parties best able to control or bear them. The protection and rewards for each of the project's stakeholders will reflect this allocation of risk.

In the focus countries, however, the PPP structures and risk-reward formulae that are tested and work in more developed countries often are not possible, whether legally or practically. And even if they are possible, the optimal economic, legal or policy approach is sometimes simply over-shadowed by the harsh realities of the context. Indeed, the realities on the ground are complex and nuanced, as the following chapters aim to show.

Endnotes

1. All the focus countries are developing countries. Some are lower-income developing countries; some are FCSs; and some are simply developing countries that have not yet been able to attract private investment on a sustained basis, even though they are not on the lower-income or FCS scale.
2. https://pppknowledgelab.org/guide/sections/1-introduction; http://ppp.worldbank.org/public-private-partnership/overview/what-are-public-private-partnerships
3. See, for example, https://www.pwc.com/gx/en/government-infrastructure/pdf/promisereport.pdf; http://www.eib.org/epec/g2g/i-project-identification/11/112/index.htm
4. See http://www.eib.org/epec/g2g/i-project-identification/11/112/index.htm
5. See https://ppp.worldbank.org/public-private-partnership/library/ppp-reference-guide-3-0; http://webarchive.nationalarchives.gov.uk/20130102211752/http://www.hm-treasury.gov.uk/d/competitive_dialogue_procedure.pdf
6. http://www.worldbank.org/en/topic/publicprivatepartnerships/overview
7. There are many kinds of PPP contracts and structures. For an explanation of these, see: https://pppknowledgelab.org/guide/sections/6-ppp-contract-types-and-terminology
8. This has been adapted from the PPP Knowledge Lab: https://pppknowledgelab.org/guide/sections/6-ppp-contract-types-and-terminology
9. This is covered in more detail here: http://www.eib.org/epec/g2g/i-project-identification/12/124/

CHAPTER 3

What are the necessary conditions for a successful infrastructure PPP?

Introduction

Choosing the PPP model for a particular public service or asset is rarely a simple process: PPPs by their nature are complex and they usually have a long tenor. And because the PPP approach can be controversial, some critics of the PPP model will actively resist it.

This means that all parties must be aware of and fully understand the tradeoffs of the PPP model and be prepared to commit to it once it has been selected. The government and its contracting authorities must have the willingness and capacity to remain actively engaged throughout the life of the PPP. They need to have a flexible mindset as there will undoubtedly be unforeseen twists and turns along the way.

Before a decision is made about whether the private sector should be invited to partner with government through a PPP to provide a particular public asset or service, a number of wide-ranging conditions should ideally be in place. All stakeholders in a potential project need to be sure and in agreement that both the broad and narrower environment are conducive to a successful project, from inception and throughout the operating life of the project. The country and political environment must be sufficiently stable and supportive; the project fundamentals must be attractive for all stakeholders; and, the decision to embark on a PPP must be sound.

Once the decision has been made, the tender and awarding process needs to be thorough and transparent. The project development phase can be particularly tricky and challenging, so there needs to be excellent management up until financial close. And once the project is properly underway and entering the construction phase, there needs to be active collaboration among all parties, and continuing interaction throughout the operating life of the project.

The box below highlights some of the most important conditions that underpin a successful infrastructure PPP.

What needs to be in place for the government to decide on a PPP for a public asset or service?

Before the project starts

- The country and its government must be sufficiently stable so that private investors are likely to be interested in pursuing a project there.
- The project must be a priority among the government's many strategic objectives and demands.
- The government must have concluded that pursuing a PPP is making good use of societal resources, based on a full cost-benefit analysis of the project.
- The government needs ideally to have based its decision on a strong recommendation from professional and experienced advisors in the economic, commercial, technical, legal and financial aspects of the project.
- There needs to be sufficient public funds for the government's commitments to the project.
- There needs to be public buy-in based on clear communication of the facts to the public, and effective continuing engagement with communities.
- Private sector involvement in the project must be acceptable to all government ministries.
- The economics of the project must allow for private stakeholders to earn a fair risk-adjusted return on their investment in the PPP (if they perform as promised).

Once the project is underway

- The government and its contracting authorities must have the required skillset and capacity to actively manage and perform the long-term obligations assigned to them or which arise during the entire life of the PPP. This can be a combination of internal and outsourced capacity.
- The private developer or operator should have a good reputation and proven track record in the technical, commercial and financial spheres. Ideally it should have implemented comparable projects or services in a similar environment. It must be committed to the project and the country.
- The selected operator must be capable of managing the project development, construction or implementation and operation of the PPP for its duration.

About this chapter

This chapter looks at the necessary factors for success over the lifetime of a PPP project. These include:

Before the project starts:
- the country and political environment
- the project fundamentals.

When appointing the right developer and operator:
- the tendering process and the awarding of the concession.

And once the project is underway:
- management during the project development phase until financial close
- the framework for collaboration between all parties during the construction phase
- continuing collaboration during the operations phase.

The country and political environment

It is important to note that, while equity investors and developers examine the risks and projected rewards of a project, lenders tend to drive the process of identifying and drilling down into potential risk factors and how to manage these risks. This is because they are committing high levels of the project costs – usually the largest exposure by dollars and percentage – for relatively low returns. In this sense they are carrying the most risk. It is in the interests of all parties to know that these issues are being identified, acknowledged and addressed. From the government's perspective, it is equally important that it has a realistic notion of whether the political, social and physical environment over which it is sovereign can attract, sustain and benefit from private sector participation. Potential lenders, investors and operators need assurance that, in spite of some possibly challenging factors, the underlying conditions are adequate and the government is committed to supporting the project's success. Otherwise, vigorous forms of protection need to be put in place. Governments need to be well informed about the specific factors that these potential stakeholders will be evaluating in their decision-making processes.

Lenders are more likely to pursue PPP projects in countries that have already successfully implemented PPP projects, and where investors have been satisfied and seen good returns. Nevertheless, countries with no previous history of PPPs but which seem to be stable and able to meet certain other conditions described in this chapter, are able to attract private investment. Indeed, DFIs and other types of lenders and investors may not have the luxury of only pursuing projects in countries where PPPs have been implemented successfully. This is particularly the case in the focus countries,[1] which might be less politically stable or even dangerous to live and work in. In these situations, lenders must navigate around problems on the ground, sometimes working through local financial intermediaries or providing government capacity support in parallel with investing in a proposed project. Sometimes, financial institutions can support a project in a region of a country, which, while presenting many challenges, is sufficiently safe.

The key for investors and lenders is that, in the end, there are not so many risks that they are discouraged and thus inclined to turn to easier environments. They may do this even at the risk of lower returns, to avoid the headache not only of implementing the project initially, but managing it over the life of a long-term concession. This includes managing the risk of disputes arising, litigation and arbitration, all of which further tie up resources, test tolerance and patience, and dampen the appetite for the project.

What follows is a discussion on the factors that have contributed to the successful planning, implementation and operation of PPPs in some focus countries. Not every factor has to be in place or be perfectly manageable, but the more there are in place, the easier it is for private investors and lenders to make the commitment.

The factors relate to key aspects, or areas of potential risk, and include: government's commitment and approach; the legal and regulatory environment; the financial environment; and, the social environment. These factors will be of particular importance in the focus countries. As discussed below, the perception of risk is as important as the actual risks that these conditions may present to private stakeholders.

The country, and the government's approach to the project

Important here are issues of overall stability in the country and government, government's approach to the project and its demonstration of strong leadership; and integrity and a commitment to transparency by all parties.

A stable geopolitical situation: in the country or the region of the proposed PPP project. This includes minimal security concerns, such as the prospects of war, or terrorist activities. It also includes all forms of civil unrest, such as politically motivated boycotts or embargoes, or labour disruptions such as strikes or go-slows.

A stable government and political system: this includes solid political structures and processes and overall respect for all legal contracts through any potential changes in government.

Ease of doing business: this refers to how easy or difficult it is to get over certain hurdles. These may include factors such as permits and access to foreign exchange.[2]

Strong leadership and commitment to the project: to develop, construct and operate PPPs generally and the proposed PPP project specifically. The government must not have too many competing priorities and obligations. While a government may not be unequivocally in favour of the project across the country, without the commitment and leadership of the government, a PPP for public services or products will fail, if not before take-off, during the life of the concession. (This was one of the strengths of the Seven Sisters projects in Jordan. See Chapter 6 for a full description of the projects.)

An effective champion to oversee the project: to take responsibility for ensuring the project's timely implementation. Delays in the implementation of a project resulting from inaction or inconsistency or changes of position can be the death knell to a project: potential shareholders do not have unlimited resources, time or patience.

Clear appreciation of the implications of the value of the private sector and commitment to PPPs: the government needs to acknowledge the implications of bringing the private sector into the business of providing the public services or product. The government must also be prepared to withstand public criticism for its decision. Ideally, there is a pipeline of proposed PPP projects to be undertaken by government once the first PPP is successful. This helps to defray the costs of early PPPs, which can otherwise appear too expensive and time-consuming.

Support and consensus within government: the different ministries and constituencies in the government must be convinced that the project is fundamentally sound and fits its strategic plans for the sector and beyond. They must be committed to the project and to the selection of the specific private partner to implement and operate the project. Sometimes, different ministries within a government compete for control or fundamentally disagree on the value that the project brings to the country or its impact on their respective spheres of influence. It is important that the project participants build consensus to the maximum extent and particularly structure legitimate incentives for the various government stakeholders and their respective representatives to cooperate. This includes potential successor governments which might be pressured into or have ulterior motives in cancelling contracts committed by previous governments. This is not a trivial or tick-the-box exercise: the private stakeholders, their lenders and government must dedicate sustained efforts to this consensus-building throughout the project's development and implementation as well as its operations. This is because government counterparts (including the individuals involved) can and do often change, or they can change their views, or they can be diverted to other priorities.

Acceptance of the changing role: the government needs to accept its changing role, which includes a willingness to relinquish some control. The government may, for example, need to give up a fair amount of management control to the private sector, which most governments are loath to do.

Demonstrable commitment to honouring contracts: the government needs to demonstrate either a track record of honouring contracts with private parties and lenders, or the commitment to doing so. There can be no political interference. These are some related factors that can cripple a project: a government or contracting authority unilaterally modifying or cancelling a contract without cause; expropriating assets or shares; changes to laws, regulations and policies; and, destructive in-fighting among different interest groups or political factions.

Alignment of the public sector's interests with the private sector's interests: both parties need to feel they are benefiting appropriately from the arrangement. There must be appropriate incentives for public sector entities and individuals to implement the project.

Flexible and constructive mindset: all stakeholders must have a flexible approach, because PPPs are dynamic and complex processes. There must be a constructive approach to negotiations and operations by all parties, and the flexibility to deal with the inevitable challenges and unexpected developments that arise in long-term concessions.

Integrity and transparency: in both the processes and any party associated with the transaction. Any compromised or compromising behaviour by any party can kill a project. There can be no corruption in either the public or private sector.

Quality and track record of advisors: and their willingness to deliver tough messages consistent with the stage of development and geopolitical circumstances of the country. This means realistic benchmarking to comparable countries/sectors and not to the most advanced countries/sectors, and the willingness of the government to trust and respect or adopt that advice in the face of potential criticism. Governments frequently need to take hard decisions, and skilled and experienced advisors can assist them with these. (See the box below.)

External support to help create and maintain the right environment

In sectors that have historically been handled by the public sector, governments may have constraints in the requisite resources and skills and experience for a long-term infrastructure PPP. This is probably especially the case in the focus countries of this publication. Even in countries that do have experience in private investment in infrastructure or PPPs, advisors with international expertise in the technical, legal and financial aspects of PPPs can bring enormous value to all the phases of a PPP project. They can contribute to the smooth running of the process and provide models of best practice in countries and sectors in similar states of reform, political stability and history of private investment.

There are a number of international development organisations that can provide skills and sources of funding for governments to retain professional and technical expertise. Examples are the WBG, the African Legal Support Facility,[3] the ADB, and the EBRD. Expertise from private legal, accountancy and specialist technical firms is also often brought on board. Advisors and consultants can be contracted to prepare the basics of a PPP bid to go out to the market, to prepare and run the tender, to help select the winning qualified bidder (or controlling shareholder), to negotiate the terms of the PPP and documents, and generally to support the government through the long-term financial close of the project. They can also help to monitor and support the project during its operations. It is critical that the advisors also be selected through a competitive process whose principal criteria include that the advisors have a track record of successful implementation and continuing operation of PPP projects.

While governments often wish to adopt the structures and risk allocation of countries that are much further along in their sector reforms and have stable political and legal and regulatory environments, this is often not possible. Governments therefore need to be willing to listen to unwelcome advice about the tradeoffs of 'playing hardball' and imposing risks on the controlling shareholder and private stakeholders that are not in the private sector's (or possibly anyone's) control. This might go against the objective of reaching close with speed and ease, which may be achievable with a solution that is acceptable but not ideal for the government, but that is more palatable to the private sector.

Indeed, good advice to a government might be that it takes on more risks than it might ultimately like to, simply to establish a track record of successful implementation, compliance with PPP projects and compliance with the government's obligations. This is assuming the risks are within a broadly acceptable range and that the process is transparent. This would be a kind of 'stress test'. Thereafter, the allocation of risks to the government can be revisited and possibly curtailed if a successful track record of public-side performance can be demonstrated.

It can be helpful too if regional advisors or other similarly-situated governments in the region with a history of successful private or PPP projects are invited to participate in discussions and share their experiences and lessons learned over the years, about implementing sector reforms, for example, or individual PPPs. Many government advisors and DFIs organise round-table discussions with multiple countries' governments and advisors to provide precisely this kind of feedback to member country government clients that are new to the PPP structure or to private sector participation in a particular sector.

Advisors can also support a government in taking a tough, possibly unpopular, decision as their advice is based on previous experience. This can help to validate a tough decision that a government may have to make as well as deflecting criticism from it.

The legal and regulatory environment

Another essential factor to the success of a PPP, and a critical part of private investors' and lenders' due diligence, is the legal and regulatory framework applicable to the PPP project to ensure the stability of the contractual regime.

Relative independence of the judiciary: investors and lenders need to have certainty that their contracts and rights will be legally enforced and upheld in the country in which they are doing business. There needs to be a body of laws that is designed to, or that is able to accommodate private interests. This includes laws relating to majority or controlling ownership by private and foreign stakeholders. These would cover issues such as regulation by contract, the enforceability of contracts, security and bankruptcy laws, recognition and enforcement of dispute resolution clauses, and waivers of sovereign immunity.

Transparent and competitive processes: preferably the government will have a track record in awarding concessions and licences, as well as the ability to implement these processes. If not, there needs to be structures in place which will guarantee that this will happen, and/or other means to achieve effectively the same protection in the case of unsolicited proposals or negotiated arrangements.

Compliance with legislation and regulations: lenders and private investors will want to know that the award of the project to the company was in accordance with the concession and procurement laws and regulations and any PPP regime that exists. They will want to confirm that private participation in the public service or asset is lawful, that any sovereign support and any tax or other exemptions and preferential treatment were approved by the relevant ministries or Parliament or Council of Ministers, as relevant in the country.

A sound and supportive legal and regulatory environment: the laws and regulations governing the development, construction and implementation of the project must be able to protect investors and developers effectively. There needs to be a stable regulatory environment, including with regulatory bodies and other stakeholders, such as government entities.

Progress on sector reform: there needs to be demonstrable progress with regulatory reforms in the relevant sector for there to be an enabling environment for the project to work. There must be a clear tariff formulation, with tariffs set and reset so that they are both affordable and acceptable to end-users but are able to yield reasonable returns to the project company.

The importance of sector reform

A government needs to show that it is making consistent, though not necessarily perfect, progress in sector reforms. This could include setting up an independent regulator for a sector, or restructuring or improving a relevant government entity's financial and managerial condition. In some cases, DFIs may support the introduction of professional management to the government entity separate from the PPP project. This would usually be done through a competitive tender process. In a few countries, although it can be difficult to organise, the management of the government entity is delegated to an experienced professional management company through a 'sector cash waterfall'. In this arrangement, all revenues are collected by the management company and all obligations of the government entity are prioritised and agreed by all players in the sector.

(The Azito project in Côte d'Ivoire offers a good example of generally sustained reforms in the power sector. See Chapter 6 for a full description of this project.)

The financial environment

The financial components of a PPP are both crucial and complex. While the financial and risk considerations are dealt with in detail in Chapters 4 and 5, below are a number of key issues related to the government's obligations, which need to be highlighted at the outset.

Availability of funds and government performance: the government's finances need to be sufficient to meet its contractual obligations. This includes sufficient reserves of foreign currency. This also includes its ability to convert foreign currency at predicable rates and to transfer it abroad to meet the project company's offshore obligations, including its foreign currency debt obligations. In addition, the government should have a track record of generally meeting its obligations.

Import restrictions: provision needs to be made for any constraints or delays in important imports entering the country, as well as unpredictable costs associated with imports.

The social environment

Infrastructure PPP projects are about delivering assets and services to the public. However, the public may not be familiar with the PPP model, or they may be suspicious about having the private sector involved. Also, the development and construction will physically affect local communities in the area in which a project is being implemented. These are only some of the reasons why governments and the private partner need to engage with the public broadly to secure buy-in to the project, and to local communities affected by the actual development.

Meaningful and sustained engagement with communities: there needs to be consistent and sustained community engagement and support from project inception and design to implementation and operation. Resistance by the community needs to be carefully and sensitively addressed. There may be opportunistic agitators who seek to incite or benefit from community disagreements or misunderstanding. They might object to the project generally or to private sector involvement in the delivery of public services or products. This is in contrast with legitimate groups who may not yet understand the complexity of the project and the tradeoffs for the community, but who might be interested in working with government and the private sector to improve the project. Ideally, the project can quickly demonstrate the value it is bringing in the form of new, reliable and affordable services. (There was strong and sustained community engagement in the Dakar-Diamniadio Toll Road project in Senegal. See Chapter 6 for a full description of the project.)

The project fundamentals

Once all stakeholders are satisfied that the prevailing political, social and investment environment is sufficiently robust or at least manageable, there needs to be agreement that the actual commercial fundamentals of the project are in place. It is useful for governments to examine these factors for themselves, as well as to appreciate that investors and lenders will be doing due diligence on these factors, as governments also need to satisfy themselves on these matters which are critical to the project's long-term success. As discussed earlier, because of the risks that lenders carry in providing debt, they will often drill down their exploration of potential risks that the project may carry, at a very detailed level.

Rigorous studies will be carried out to determine the technical, commercial and financial feasibility of the project. Key criteria, which apply to all PPPs, include: the robustness of the underlying market; the creditworthiness and independence of the purchaser if the entity is government owned, and available government support; affordability; the availability of requisite supplies; the viability of the local infrastructure; and, the quality and credentials of the private sector parties that are to come on board.

In countries with robust and more predictable markets, this can be a reasonably straightforward process. However, in the countries that are the focus of this publication, where there is bound to be less financial clarity, the process could be complex and time-consuming. A number of questions need to be asked and rigorously answered.

Is the project technically, commercially and financially feasible?

The technical, commercial and financial feasibility of the PPP project: lenders consider whether the PPP project fundamentally makes sense from the technical, commercial and financial perspectives. Engineering analyses, market studies and conservative financial projections need to be carried out by skilled and experienced professionals with international experience. The feasibility studies must show that the engineering, costs of construction and service production and cash flows of the project will be sufficient to pay for all construction and operating costs and all debt, as well as there being a cushion for contingencies. Prudent lenders usually prefer that the projections also show that the cash flows will provide the expected returns to the controlling shareholder and other shareholders as an important means of keeping the controlling shareholder incentivised. Note that lenders generally require that the projections will cover some multiple over their respective debt and will run multiple sensitivity analyses to look at best- and worst-case scenarios.

It is rare that lenders will consider financing new technology for a PPP project in the focus countries without strong guarantees from a government or controlling shareholder assuring the repayment of the loan, especially one that is project financed. This is especially the case in countries presenting numerous other country and political risks. To the extent that new technology is involved and no such guarantees or credit support are involved, a different kind of investor group or lender is likely to be involved. An example would be a venture-capital investor, who would expect a much higher interest rate of internal rate of return to match the much higher risk involved in the endeavour.

Senior, secured lenders of PPPs in the focus countries are also reluctant to finance the exploration or proving of resources, such as those required in the geothermal, solar, wind and other renewable energy spaces. It is expected that the government or the developers will pay for or raise funding for proving the resource. If the government is to carry out such studies or exploration, the government may be able to source funding from a DFI. Lenders usually double-check and often expand on these studies.

Is the market viable?

The underlying market for the public service or product: potential lenders will typically do an extensive analysis of the market of the underlying product or public service. They want to determine that it is robust and growing, and offers prices that will cover the construction and operating costs and the servicing of debt, and provide the requisite return to investors. This is independent of whether the end-users or customers are the direct purchasers of the services or assets, or whether they are buying through a government entity, such as a power distribution company or a transport authority. The PPP structure being applied throughout this publication would be one in which the asset or service is bought through a government entity. This is because the law might dictate this structure and also because there may be an entrenched custom that public assets and services are provided by the government. However, lenders and investors would still want to look carefully at the existing and projected supply and demand situation over the long term and determine whether customers could be able and willing to pay for the services – perhaps further down the line as prices drop.

A demand-supply plan: it is common for governments and government agencies to be required to deliver a demand-supply plan and provide reasonably certain expectations of price stability for the life of the project. This is important for evaluation by lenders and their advisors in their financial model, which would include assumptions and sensitivity analyses about what could interfere with the projections. The plan could include expectations of export to nearby countries. Controlling shareholders and lenders may supplement these projections with their best projections of regional global prices and markets. Lenders and investors wish to fully understand whether the project company can sell to purchasers other than the government purchaser, for example, to industrial or commercial users of the product or service. They would also want to know whether those prices were fully or partially regulated, and if not regulated at all, at what prices the project company could and would sell.

Competition issues: investors and lenders will also look carefully at competition issues over the short, medium and long term of the PPP concession. They will want to know whether there is competition for supplies from other countries or if lower-cost solutions are likely to become available. For example, in the renewable energy industry, lower-cost technological solutions have been introduced every year and destabilised the long-term contractual commitments of government purchasers to pay the agreed high prices of the original solution. Likewise, the conventional diesel, heavy fuel oil and similar thermal industry has become more expensive compared to newer gas solutions.

Ultimately, a project must, for its entire duration, be competitive and least-cost or among the lowest of costs of similar assets or services. This is especially true for the energy sector in countries that require the use of the lowest-cost energy supplies at any given time.[4] This is because if substitute, lower-cost technology becomes available, there is the risk of the project being marginalised or unilaterally repudiated, because it would become too expensive. If this happens, the legal consequences can be complicated and drawn out, definitely expensive, and could possibly require international arbitration.

Technological obsolescence: the issue of technological obsolescence is also a consideration. There needs to be certainty that the technology being used is viable for the duration of the project.

Is the purchaser creditworthy?

The creditworthiness of the purchaser: the public purchaser of the public services or products must be creditworthy and have the managerial capacity and financial liquidity to perform all its required obligations. This is frequently not the case in the focus countries. In some cases, a government purchaser will have not only the obligation to make any continuing payments but will also have the obligation to purchase the project. Investors and lenders do not rely solely on contractual protection in the form of solid offtake or purchase arrangements or even a sovereign guaranty of those offtake obligations. In the countries where there is a single government user or purchaser, lenders and investors do extensive due diligence on the purchaser's past, prevailing and projected financial and managerial capacity and track record of timely and full payments.

In short, lenders and investors look at the bigger picture of the sector to gain comfort from the market's underlying strengths, and to work around any weaknesses. Even if there is clearly pent-up substantial demand, the government entity must be committed and able to connect potential new consumers. If the users are in rural areas, it can be more challenging: new networks or roads may be needed to connect communities to the public service being provided. Responsibility to undertake tariff increases and extend networks can be built into the project contracts; however, the government and its agencies must have the political will and practical and financial ability to implement the requisite change or to build the needed facilities.

An independent power project: an example of what investors and lenders will want to know

Before committing to such a project, investors will want a lot of hard facts.

They will analyse the proportion of consumption by type of users, such as residential, commercial, industrial and government customers. They will determine what prices these customers currently pay and what they would need to pay to have at least full cost recovery of the construction and operational costs of the project. They will analyse whether meters generally exist or whether they can be installed, and whether the government entity can cut off each category of customer for non-payment of bills. For example, in many countries, one cannot (and would not want to) cut off hospital or critical government services. They will want to know whether, among the industrial customers, some are anchor industries of the government, such as aluminum smelters or steel companies. For example, these companies might have a history of their payments being subsidised by government or of chronic breaches of their payment obligations. Lenders will want to know whether such users continue to have a competitive place in the international and/or local market for their own products.

When ancillary work is required, DFIs and others committed to transforming the infrastructure sector landscape can often help. For example, they often coordinate investments and loans to power generators. But they can also assist, parallel, with support to utilities and distribution companies, and the construction of substations and transmission lines, roads and pipelines. And they can provide logistical support with timetables intended to dovetail with the delivery of the main PPP project. These functions can be built into the main PPP, or in ancillary publicly procured and financed projects, sometimes on concessional terms.

Credit and liquidity support

Credit and liquidity support of continuing purchase payments can take the form of one or more of the following:

- letter of credit
- cash collateral (escrow accounts)
- assignment of receivables, with requisite acknowledgements and consents from customers. (Note that there are sometimes legal restrictions or contractual limitations on the ability of a government entity to assign or pledge receivables.)
- advance payments (similar to telephone pre-paid cards)
- sector waterfall in some cases (See the Azito case study in Chapter 6.)
- where possible, and while it is not 'security' *per se*, direct contractual arrangements with industrial and/or commercial consumers.

Lenders and most equity investors are unlikely to accept the requirement to draw on a government guarantee for routine, periodic payments. The liquidity is often a number of months of capacity payments or the equivalent.

Is the government able to give appropriate support?

Scope of government support: in the focus countries, it is nearly always the case that government financial and logistical support will be required to back up the obligations of a financially stressed government purchaser. The support that government will provide is usually articulated in the concession or implementation agreement. In some countries, this can be a so-called put and call option agreement, and sometimes it is in the project company's licence. If a sovereign guaranty is involved, it will usually be outlined in a separate guaranty instrument that meets the legal local or foreign obligations.

Government support can cover:

- contractual guarantees, indemnities or comfort letters for government purchaser breaches under its offtake or liquidity instruments
- provision of capital assets, pre-feasibility studies previously undertaken or other in-kind contributions
- grants, loans or equity to pay for some of the pre-feasibility or design or construction costs
- support to the project company in obtaining permits, acquisition of land and easements, assistance with imports;
- assurances regarding the availability, convertibility and transferability of foreign currency
- undertakings to cause tariffs to be adjusted as planned
- tax exemptions or holidays if these are consistent with government policy and essential to the project economics
- resource assurances or provision of certain required supplies (such as fuel, water or roads)
- market assurances, through, for example, availability payments support, shadow tolls or tariffs
- tariff subsidies
- legislation or undertakings to change legislation. (For example, this could be necessary to permit private or foreign investment and control in the sector, or to implement the Convention on the Recognition and Enforcement of Foreign Arbitral Awards of 1959, also known as the New York Convention.)

Where there are weaknesses in the creditworthiness of government, or the government purchaser, or government's ability to provide support

In countries that have a very weak government purchaser or where the purchaser is managed and financially supported by the government, the purchaser may not be able to organise credit and liquidity support for their obligations. Even if it can, investors and lenders often are not comfortable with the reliability and coverage of the support. They will then require a guarantee from the government of the obligations of the purchaser under any purchase arrangement. This could include any other similar government-owned counterparties such as fuel suppliers.

If the purchaser of the product or the service is government owned, the government may be asked to back the purchaser's payment and performance obligations. Governments generally do not like to provide this kind of sovereign guarantee of the commercial obligations of its government entities because of the possible effect of foreign debt obligations on their balance sheet. This could affect how the government is treated by the International Monetary Fund (IMF) or government rating agencies. However, in practice, the obligations being guaranteed are commercial and not payable in all instances. For example, the government would be exempted if the project company did not meet agreed key performance indicators (KPIs).

Therefore, it is not universally accepted that the government must include the obligation in its financial reporting.

Reform-minded governments may also reasonably object to full sovereign support for all obligations of a government purchaser. This is because their plans, based on international best practice, include the full divestiture of the purchaser or to have the purchaser operate independently from the financial and administrative perspectives. The bottom line, though, is that lenders are not generally willing to take the risk of a government purchaser's ability to pay if the purchaser's financial condition is weak. And if they are willing to do so and add a risk premium to their pricing for that risk, tariffs can often become politically or practically unsustainable.

Given the importance to a government of having an established track record of successful PPPs to attract further and continuing private engagement, some governments have included in their sector plans two large phases: a first, in which they may provide more sovereign support than they might eventually like to offer; and a second (assuming the first phase is successful) in which they roll back comprehensive sovereign support in favour of more limited, targeted support. For example, in Kenya, the government has reduced the scope of its sovereign support of the electricity company Kenya Power & Lighting Company (KPLC), which has been partially privatised. This is because KPLC has had a relatively solid track record of meeting its financial obligations and the government has stuck to essential sector reforms.

In some countries, in addition to, or instead of a full sovereign guaranty, other entities have provided indirect liquidity support for the purchaser through a guaranty backing up a letter of credit posted by the purchaser. Examples are those sponsored by the AfDB or the WBG. These alternative structures are only possible in countries in which the government purchaser has become stronger and consistently (or nearly so) met its obligations, and the purchaser's long-term prospects for financial security appear strong. It is difficult to pursue these structures in countries undertaking a PPP for the first time.

In most cases, a government purchaser does not have the obligation to purchase the project in the stated circumstances. Instead, the government assumes the obligations for termination compensation directly.

There is a growing number of products that have been designed to mitigate the risk of a government and its purchasing entity's weak financial position to meet its continuing payment obligations and the obligation to pay termination compensation.[5] However, these products are not a substitute for a sound understanding of the health of the sector and how it will develop, as well as the fundamental economics of the project and where it fits into the country's development strategy. While this form of support can be critical to a focus country, providers of it expect and often require evidence of improvements. They will want to see that, as the first round or rounds of PPPs are progressing, the economy, government and the government purchaser have met targets for reform, growth and robustness and will gradually require this support less and less.

Is the project affordable?

Affordability: affordability of the public services or products for each class of consumer is critical. Even in a government-pays PPP, the end-users must be able to afford it. This is a major issue in the focus countries.

If there are affordability issues, a number of institutions such as the DFIs have donor, blended or concessional finance windows that can support the consumer's ability to pay the requisite price for the services. These can be effected through various financing techniques, such as lifeline tariffs or viability gap funding. Development finance institutions and other lenders can also support the reduction of tariffs by helping to bring down the capital costs of the project. This could include paying for preliminary project preparatory work or feasibility studies or even some of the construction or operating costs, which might otherwise count in the overall project costs to be recovered through the tariffs. This kind of concessional financing and similar support is particularly crucial in more challenging countries and in sectors that are often not commercial on their own in these countries. Examples are the bulk water treatment and supply and waste management sectors. Additional ways to adjust the overall costs of a PPP initiative in these sectors can be to divide up the overarching service into formal and informal service providers with different price points: for example, garbage may be collected by smaller community members or companies and the rest of the processing provided by larger, more expensive operators.[6] Creativity in piecing together the public and private participants and their associated costs is therefore very important. These structures are not intended to remain in place forever as they can appear to distort to varying degrees the normal competitive pressures of the market. However, they can be critical to the viability of a project in a focus country.

If the viability of the PPP project requires an increase in tariffs to recover the full commercial costs of its construction and operation, consumers need to be able and willing to pay for the services or products. One of the ways to ensure that customers will be willing to pay for the services (even if they have not before) is through effective community engagement throughout the project's design and implementation. Communities will need to know what they are set to gain, such as a reliable and affordable service or product. The communities' knowledge and expectations, in turn, will incentivise the private sector operator in fact to deliver on the KPIs, and to expect to be penalised if it does not. (A strength of the Pamir energy project in Tajikistan was the education of end-users in the customer paying principle. The Dakar-Diamniadio Toll Road project in Senegal was successful in setting a clear toll mechanism at an affordable tariff. See Chapter 6 for a full description of both projects.)

If the viability of the project requires that tariffs be raised from an existing tariff (which may, up to the point of the project, have been subsidised by the government), lenders will assess the political will of the government to increase tariffs as well as the users' appetite for the increases. Election schedules feature in this analysis. If tariffs are based on or keyed off indices, it is important to project the future movement of the indices and their relationship to the actual costs, including operating costs, financing costs, and capital costs.[7]

Is there sufficient access to necessary supplies and delivery channels?

Most PPP projects will require adequate supplies of building materials (such as cement), equipment and spare parts, power or fuel and raw materials for construction and operations over the long-term of the concession. The cost for these supplies and materials needs to be assured or predictable. While the contract might give assurance that these supplies and materials can be secured and thus mitigate risks, lenders will still evaluate the actual availability and prices of the supplies. They will also scrutinise the ability of the suppliers to deliver, technically, commercially and even politically, especially if supplies are being made available from another country or by sea. Depending on the circumstances, investors and lenders often develop a 'plan B' in case the original suppliers are unable or unwilling to comply with their contractual obligations, particularly if the supplies are not an internationally available commodity. Given the complexities on the ground in the focus countries, this basic aspect of a PPP project's feasibility takes on added meaning.

It is also critical to know who is supplying these goods and services and on what terms. For example, if a government entity is the supplier, lenders will assess whether that entity is incentivised to perform and whether it is sufficiently creditworthy to perform over the life of the concession. This could be the availability of fuel for power generation or regasification, for example. They will also review the undertakings of the project company to third-party suppliers to confirm that these undertakings are consistent with the underlying PPP contracts.

For instance, if the project company fails to deliver its output under a PPP purchase agreement, it will not be paid. (This is further explained in Chapter 5.) This would normally be the case even when the failure to

deliver is because of a supplier's breach of the obligations to deliver supplies. However, a project company is not usually willing to take responsibility for a breach of a government supplier's obligations to deliver goods or services that puts the project company in breach of its obligations. In any event, the project company will look to be relieved of the obligation to pay under the third-party supply contract in such a situation.

Is there adequate ancillary infrastructure?

Lenders will examine whether there is existing, or plans for, construction and, importantly, continuing maintenance, of local infrastructure necessary to the project. This is regardless of whether it will be provided by the government, its government purchaser or by an independent third party.

Examples would be: expansion of the grid, and transmission lines or substation for power projects; a pipeline for the delivery of water supplies; fuel for the construction of the project; or, a port or road from which certain supplies will be delivered. These public work tasks are a special focus for lenders to the main PPP project in focus countries. This is due to the lack of financial and human resources of government and its entities to deliver, and the additional costs and delays to the main PPP project that can occur if there is a problem.

Are the private sector parties of good quality?

Quality private sector parties: a strong, experienced and committed lead private sector developer, operator or consortium is essential to the success of a PPP project over its long life. This is true even if some of the funding and technical tasks are outsourced to third parties, including to construction contractors and operators or service providers. From the government's perspective, it is also important to understand the lenders' and project contract counterparties' commitment to the country, sector, project and their ability and willingness to withstand the inevitable setbacks and complications in the long life of such projects. Once the project is stable, lenders can often be comfortable with exiting the project and bringing in new competent and creditworthy replacements. The government also has an interest in securing the stability of the project and in knowing the identity of its principal owners and is therefore aligned with lenders in wanting to control to some extent changes of controlling interests in the project. Government and lenders work in tandem, leveraging off each other to make sure that the controlling ownership of the company is secure. The private sector partner's commitment to and familiarity with the local context is especially key in the focus countries. This is because it can be difficult to attract managers and personnel, as well as corporate support at the highest levels for managing setbacks due to chronic or recurring problems on the ground.

Appointing the private partner

Is the tender and awarding process rigorous and transparent?

The tendering and awarding process must be inviolable. Important here are the required qualities and track record of the potential private partner, the tender process itself, the selection of the private partner and its ability to deliver on its promises.

Qualities of the private partner: the private partner may be a developer or operating company. Selecting the right private partner is a critically important factor in the success of every PPP. The private partner should have a proven technical, commercial, financial and reputational track record of having implemented and operated the same or a similar type of project or service in the same or a similar environment. It must be capable of managing the project development, construction or implementation and continuing operation of the PPP.

The tendering and selection process: the process by which the private sector partner is selected must have been carefully designed by the government and its advisors. The process can vary in complexity depending on the country or region and on the anticipated familiarity of investors and service providers with the project, country and sector. It might be a single-step tender or an iterative process involving many stages. For example, as discussed above, it often involves a public request for qualifications (RFQ) by the government or its contracting authority or line ministry. This is designed to limit the number of potential interested parties to those with the relevant technical, financial and legal qualifications and meeting strict integrity standards.

Thereafter, the government will send a request for proposal (RFP) to the qualified bidders inviting them to make a commercial proposal based on as much information the government has available about the project or its 'output' requirements. As indicated above, the process may be iterative and involve bidders' competitive dialogue or workshops to help the government and its advisors refine the potential technical and other solutions and allow it to more efficiently compare the proposals and to award the project to the bidder that

has made the best overall proposal (often, but not always, based on the lowest financial bid).[8] Sometimes, the government may engage with the winning bidder and negotiate the terms of any contracts included by the government in the tender package. Even after the awarding of the project to a winning bidder, it is not uncommon that the government and the winning bidder will negotiate some of the PPP contract terms.[9] The tender process must be undertaken in full compliance with applicable local procurement and other laws and regulations. Note that some development finance institutions require the tender or procurement process also to be consistent with special rules in order to be eligible for financing by the institution. (The WBG has recently updated and implemented a new procurement framework and issued guidance relating specifically to PPPs. See Annexure 2.)

Awarding of the PPP concession: best practice is for governments to award licences and concessions based on an international competitive tender. There are many treatises written on the art of procurement relevant to PPPs, so this issue is not addressed fully in this publication. Notwithstanding this best practice, many licences are awarded after having been sole sourced or negotiated. For example, a mining company may offer to build a power plant or railroad to assure itself of reliable and affordable power or rail service, and this mining company may offer to build these assets large enough to sell excess to the government or its customers. The awarding of these concessions should be transparent, balanced and efficient. Lenders will investigate the process by which the licence was awarded. If it was not competitively tendered, they will decide whether the contracts are acceptable or could be subject to challenge by other developers and investors; and whether they are sufficiently balanced to support the continued commitment and capacity of each of the contract parties to perform and not to dispute the terms of the contract.

Unsolicited proposals without a tender

Sometimes, instead of the public government competitive tender described above, a company may make an unsolicited proposal to the government to build a PPP project and the government grants an exclusive licence to the company without a competitive tender based on the company's proposal. Or the government may instead approach the company with a request to expand operations to supply the public with the company's product or service. The company may insist on the exclusive right to develop the proposed PPP project as a condition to spending a great deal of money on the early stage development, and may also insist that the government reimburse the company if the project does not proceed or is awarded to another company. Some countries, in accordance with best international practice, have adopted rules surrounding these unsolicited proposals and negotiated arrangements to ensure that the resulting concession award is transparent and achieves the same economic and other benefits of a public competitive tender. It is important that the project will in fact bring quality, reliable and reasonably priced infrastructure, not only to the industrial company (and its shareholders), but also to the public intended to benefit from the PPP project. This is particularly important for DFIs because of their goals to alleviate poverty. Investors and lenders will also want to confirm that the ultimate award of the project to the existing company or business has been done competitively and transparently. Importantly too, they will want to see that it achieves the balance and economic competitiveness for the government and the end-users that would otherwise have been obtained through an open competitive tender.

Requirements of the private partner after being awarded the concession

Once a government has committed to a PPP approach for delivery of a given public project or service and selected a qualified and promising winning bidder, it is important to acknowledge that the design and implementation of the PPP can be a time-consuming affair, with each stage presenting unique as well as continuing risks for each of the stakeholders. In particular, the private partner must have the full capacity and be properly incentivised to prepare or develop the detailed specifications of the project, to construct or implement, and to operate and maintain the project. Depending on the capacity of the government and the information that exists about the project and its feasibility, the government can help to shorten the next phase of the project by performing some of the activities outlined in advance of, or in parallel with the tender process.

Once the project is underway

The good management of the project development phase until financial close

Depending on the type of project or service to be delivered, the project development phase can last years and cost millions of dollars in human and other resources without the relative assurance that the project will proceed and, in many cases, no assurances of being reimbursed for this expenditure. This is therefore the riskiest phase of a PPP, and relatively few companies have the sustained appetite for it in difficult environments.

From the private developer's perspective, if progress on completing these development activities (especially activities that depend on the government's or its agencies' performance or cooperation) is substantially delayed and the project development phase goes on too long and/or it involves the commitment of substantially more financial and other resources than originally budgeted, the higher the risk that the PPP will founder and not reach the stage of implementation, frustrating the government's objective in delivery of the needed project.

The success of a PPP therefore depends on the full engagement and cooperation of all the stakeholders to complete the project development stage as much as possible on budget and on time. In particular, the government should ideally take the lead in the prompt resolution of issues that are not within the control of the private sector developer and that can sometimes delay projects by years. For example, the transfer or granting of rights to needed public or private land, resolution of issues pertaining to availability, convertibility and transferability of foreign currencies and offshore bank accounts, tax treatment and various import and export duties, and other governmental authorisations have been known to substantially delay implementation of projects, sometimes by years. Although the laws relating to these issues or the process to follow in order to resolve these issues may not be clear in some emerging markets, governments should ideally dedicate their resources and influence to transparently and efficiently help the private stakeholders resolve these issues promptly, at least within an agreed timetable.

The project development phase typically includes the following: the items that largely depend on cooperation or performance by the government or local stakeholders are highlighted in bold:

- continuing feasibility studies and market analyses to add to any information supplied by the government in the tendering or similar process
- technical design and resource validation
- establishment of project company and shareholding arrangements negotiated
- consistent liaising with government, other government bodies and public players
- **licensing and permitting**
- **acquisition of public and private land use rights/easements**
- environmental and social impact assessments
- continuing community engagement and marketing
- debt mobilisation and negotiation of the loans
- preparation of the development budget and detailed development plan;
- financial modelling
- insurance assessment and management programme, securing of insurance
- structuring of proposed project-related contracts and negotiation of the concession/licence
- tendering process, and selection and supervision of project participants, contractors and advisors
- **negotiation of the bankable project and legal documents that can withstand the scrutiny of lenders and investors**
- sourcing of equity and debt and concessional financing

- **structuring and mobilisation of political risk products to support the project. (This typically relies on the government to formally request such support and potentially to provide its back-up assurances if such products are called upon)**
- **mobilisation of funding for the appointment by government counterparties of consultants and advisors necessary to the implement the project and assure a fair deal for the government**
- engagement of advisors and consultants to the project company
- **monitoring any work to be delivered by the government to make the project work, such as an access road or transmission line (sometimes the mobilisation of funding for it)**
- signing of all the concession and project-related agreements, and the equity and long-term financing agreements. This culminates in the meeting of all conditions of disbursement set out in the equity and debt documentation, and the reaching of financial close. It includes the disbursement of the controlling shareholder's construction equity and the long-term debt financing. **The government's full cooperation is needed to achieve this milestone.** (See Chapter 4 for more on this).

Active collaboration during the construction phase

The combined construction, project testing and completion phase is the next most risky phase of the PPP, because the asset or service is not yet generating revenues. Meanwhile, the lenders and investors will have begun to spend or contribute the large amount of money required to enable the project to reach the revenue-generating, operating phase of the project. The investors and lenders will therefore focus on how to expedite the completion of the project completion on the schedule included in the PPP contracts, and control the construction costs. Construction risks are further elaborated below in the discussion on bankability, where the particular risk factors and mitigation strategies during this phase are discussed (see Chapter 5).

Continuing contractual commitments during the operation phase

During the operations phase of the PPP, the private operator and lenders concentrate on meeting the promised operational parameters of the project. They also aim to reduce the risks of interference with the project insofar as they can, to maximise the anticipated revenue stream. This will have been carefully designed to service debt and to generate predictable returns to equity investors. The risks during the operating phase risks are elaborated below in the discussion of bankability.

It is critical to the success of the PPP and the private sector's commitment to the objectives outlined above that the public sector partners are able and willing to perform their respective obligations throughout the life of the PPP project. In this way, they are engendering confidence in the government's ability to honour its obligations. This will give the existing private partner peace of mind and encourage future investments. The particular risk factors and mitigation strategies during this phase are discussed in Chapter 5.

Endnotes

1. All the focus countries are developing countries. Some are lower-income developing countries; some are FCSs; and some are simply developing countries that have not yet been able to attract private investment on a sustained basis, even though they are not on the lower income or FCS scale.
2. For more on this, see the 'Doing Business' reports: http://www.doingbusiness.org/about-us
3. https://ppiaf.org/;
   http://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/african-legal-support-facility;
   https://www.rockefellerfoundation.org/about-us/news-media/rockefeller-foundation-ifc- create-new;
   https://www.adb.org/about/infrastructure;
   http://www.ebrd.com/what-we-do/products-and-services.html;
   http://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/ ppp/ppp
4. Electricity markets generally operate on a 'merit order' basis. This means that the buyer meets demand by purchasing and taking electricity first from the cheapest generator, then the next-cheapest, until it has all the electricity it needs. This is a complex economic and operational discussion that is in flux, especially in unregulated markets and markets that have introduced renewable energy to their energy mix. See, for example: https://www.economist.com/news/briefing/21717365-wind-and-solar-energy-are-disrupting-century-old-model-providing-electricity-what-will-replace-it
5. See www.worldbank.org/guarantees
6. https://www.ifc.org/wps/wcm/connect/81efc00042bd63e5b01ebc0dc33b630b/Handshake12_WastePPPs.pdf?MOD=AJPERES
7. http://ppp.worldbank.org/public-private-partnership/
8. See https://ppp-certification.com/pppguide/download;
   https://ppp.worldbank.org/public-private-partnership/library/ppp-reference-guide-3-0
9. There can be a risk that the award could be challenged if the concession contract included in the government's tender package is substantially altered through the negotiation. For a discussion of the tender process, see https://ppp-certification.com/pppguide/download, Section 10

CHAPTER 4

The world of finance in infrastructure PPPs

Introduction

The financial contribution of private sector stakeholders is one of the key attractions to a government undertaking a PPP. And there are many reasons private investors may want to participate in a PPP in a focus country,[1] as explained below. It is important for governments, and private and other stakeholders to be familiar with the wide variety of potential financial stakeholders, instruments and funding arrangements. This includes an understanding of the tradeoffs considered by each of these different financial and other stakeholders in the context of a PPP in this publication's focus countries. This understanding can help the parties come up with creative solutions to otherwise seemingly intractable differences and to reach agreement and resolve misunderstandings both at the inception of the project and throughout its life.

When governments decide to choose a PPP as a solution to an infrastructure or public service requirement, they are looking for funds and expertise that they do not have. The main method for attracting these funds and expertise is to take their proposal to the market to try to attract as much private capital and funds and expertise as possible.

Suitable investors who have been chosen through the award process then partner with potential lenders to provide financial leverage to the project.

Many kinds of investors are involved in PPPs around the world, including in developing countries. Investors in a particular PPP may be local, regional or international. They may be investors in a single project or multiple projects in a single country, a region or a sector. In many instances, multiple investors collaborate as partners in a partnership agreement, or as joint venturers in a joint venture or development agreement. Or they may set up a company. As described in detail in Chapter 2, this is often in the form of an SPV established solely for the purposes of developing and implementing the project based on a shareholders' agreement. Or they may form a consortium for various phases of the project's life.

Equity investment

On the equity side, it is important for public stakeholders and lenders and their advisors to dispassionately understand what drives private investors to pursue projects in the focus countries. It is important to know what their appetite for risk is and the return on investment that these investors expect in exchange for assuming these risks. Each of the types of investors described below will have a different investment strategy and investment return requirement for its respective shareholders or investors. A strategy could, for example, be to diversify geographically to take advantage of, or respond to the investor's domestic or foreign market fluctuations, or to enter a market as a developer or operator. The aim would be to create opportunities for the sale of equipment or services or to provide infrastructure products or services more reliably or cheaply. This would be primarily for its own use but also be available to the public. And some investors may have a requirement to diversify their portfolio around the world or a corporate social responsibility objective to contribute to the elimination of poverty in the developing world.

Debt finance

Financial leverage, or debt, is important to a PPP structure because it is less expensive than equity in terms of expected returns for the project risk taken. This is because, if there is a cash flow problem during operations, the debt is paid before equity, and it therefore does not generally expect as high returns as equity. In addition, the cost of debt is generally lower than the cost of equity capital.[2] As the costs of debt and returns on equity are costs of the project, the inclusion of debt in the capital structure of a project therefore generally brings down the overall costs of the project. This means that the tariffs can be lower than they would have been if the project had been financed wholly on the balance sheet of an equity investor or company. Similarly, in the case of bankruptcy, most bankruptcy laws provide that debt is paid before equity. Lenders will require that equity is the last priority in payment in the ordinary course of the project's operations as well as in bankruptcy. This is why the projected returns (or upside rewards) for equity investors need to be attractive in order to justify the risks of the investor's relative right to the revenue stream and assets (in bankruptcy) of the company.

There are many types of debt, and a PPP project may be structured to have different classes (or tranches) of debt. The tranches describe the relationship of the lenders with one another in the capital structure of the SPV, regarding their respective rights to the cash flows of the SPV, to security over the company's assets where the debt is secured, and to assets in bankruptcy. Senior debt refers to the debt that has the highest priority relative to other classes of debt in these respects. Between senior debt and equity is a range of types of debt and quasi-equity: for example, subordinated or mezzanine secured financing, unsecured senior debt, loans with an equity participating feature, debt with a conversion feature or warrants, and structured and hedging products. Each of these instrument types has an intermediate cost to the company, and typically takes a degree of risk at levels somewhere between the types of risks that senior, secured debt and pure equity are typically willing to assume.

The ratio of debt to equity in a project is sector-specific and dependent on the risks of the specific project and market expectations, ranging from 80% to 20%, to <50% to 50%. The higher the leverage, the more risk for the lenders. Project specifics might include, for example, whether the services or product are being provided to an assured market based on a firm contract with a government or government entity. Or, in markets where sector reforms have been achieved, the project might involve the project company taking less certain merchant or market risk. This would include the elimination of the requirement that only a government entity be permitted to purchase and distribute services to end-users. This means that, in an unregulated market, the project is permitted to sell its output directly to end-users at competitive rates; the consumers do not commit to buying the output and do not agree to a definite price for the output. The markets that are the subject of this publication are single-buyer markets, not unregulated markets.

The project finance structure

Just as there are many types of financiers and financing arrangements in relation to PPPs, there are also many different types of PPP contracts. (This has been covered to some extent in Chapter 3.) For the purposes of this discussion on PPP finance, which relates mainly to PPPs carried out in the focus countries, it is assumed that the PPP contract is undertaken by a newly formed SPV under a project finance structure. A PPP involving an SPV is usually financed by loans (debt) from lenders in the form of debt, and by investment in share capital (equity) from investors. Governments sometimes contribute loans or equity as well.

About this chapter

This discussion on finance is divided into two parts: the first part looks at private equity, and the second part looks at debt.

Equity: private investors

This section looks more closely at private equity investment in PPPs. It gives on overview of what kinds of private investors choose to get involved in PPPs in the focus countries, how their investment strategies evolve, and the returns and rewards they are seeking that are commensurate with the risks that they agree to carry. An important distinction between a PPP and public procurement is that, often, a large degree of risk in the design, construction and operational aspects of a PPP is shifted to the private sector stakeholders. (The particular risks that private investors, and indeed lenders bear, and how they are allocated among the shareholders is the subject of Chapter 5.)

What do equity investors want from a PPP?

Once they are on board, investors become owners of the project through the ownership of common shares in the newly formed company. Some investors may seek to have preferred shares. This means that the preferred shareholders have the first opportunity to receive cash available for distribution before the common shareholders; or they may have some other preference over the common shareholders, such as a certain level of returns before common equity can recover their capital or returns on their investment. The returns to preferred shareholders are often capped or limited, relative to the common shareholders, because of their relatively smaller appetite for risk. Generally, investors seek to limit their exposure and liability and to maximise their returns. Some shareholders structure their investments as shareholder loans or convertible loans for tax reasons, and some prefer or are compelled by local company or accounting laws to structure their investments as common shares.

Shareholder and other arrangements among multiple investors can be complex because of the investment horizons and risk appetites of different classes of investors and because of their individual ownership structures. This is especially true over the long life of a PPP as investors restructure their companies, undergo changes of control or exit from different regions or business lines. It is therefore important for each investor and the other PPP stakeholders to understand what drives each investor, in relation to, for example, the investment horizon or planned or unanticipated exits, required return rates, and whether they are seeking long-term business development opportunities or just a one-off test in a new market or sector. Of central importance also is managing, as far as possible, the risks of any investor going bankrupt, changing strategic vision, or disputes arising among the investors.

Often, one of the investors will be the natural controlling entity because it is contributing most of the funding or is most interested in the long-term success of the PPP. Some corporate groups have a requirement to control their investments, while others have a policy to avoid control, so that they do not have to consolidate the investment on the parent balance sheet. It is important for there to be an effective means of driving the project forward whether through a single controlling shareholder or an effective contractual arrangement among the principal investors.

Some of the types of investors described below are experienced in only one of the phases or aspects of a PPP. The collective investor group either includes the expertise as well as the financial capacity and willingness to perform all the tasks and obligations of each PPP phase, or it may involve the contracting out of these skills and services. The relationships among the investors are very important for the quality of a PPP project's design and construction, and the stability of its ownership. This includes having effective dispute resolution mechanisms in place.

In the focus countries, given the large capital requirements of an infrastructure project and the relatively limited risk appetite of investors unfamiliar with these countries, the number and type of investors in even relatively small projects can be unusually complex but critical to manage.

Investment strategy and required returns

Strategies may change, of course, as markets and micro- and macro-economic environments develop and geopolitical situations change. An investor may have an objective to be a long-term investor or to operate a business in the country, or to invest in the short term to achieve a certain goal. A project developer may plan to exit at the financial close of the project's long-term financing or shortly after. Some investors exit after simply obtaining a licence to develop a project. Even charitable organisations or providers of financial support on very favourable or concessional terms used in the preparation, development or implementation of PPPs are under increasing pressure to demonstrate to their donors that their funds were wisely used or invested. This is because of the competing needs for concessional funds. There is a role for each type of investor with integrity in different parts of the capital structure and governance of a PPP project company and at different stages of the life of the PPP.

Returns that are commensurate with risk

Investors generally seek returns that are commensurate with the risk they are taking, or the highest returns possible that reflect the risks of the project. In short, the more risk taken, the higher the returns expected and required by investors. Thus, an investor may require an incrementally higher return if it is investing in a country with historical or recent substantial political or country risks, or if a country does not have a strong track record of private investment and honouring contracts. Higher returns will be demanded, especially if the government is unwilling or unable to assume most of the risks. This refers to the risks usually assumed by governments that could arise during the life of the PPP and which are outside the direct control of the private investors. Investors may be willing to accept higher risks or lower returns if there are rewards to be earned on other initiatives in the country. Return expectations on investments in the focus countries can vary widely, but they are nearly always above the returns for identical projects in developed countries and markets.

A separate but related dynamic is that, all other things being equal, the longer an investor's risk capital is tied up without the project reaching financial close, the lower the investor's returns will be on that risk capital. First, the longer the project development phase lingers, the less likely it is to reach financial close and be converted into a revenue-producing asset. Second, even if the project can ultimately reach financial close, financial close delays can result in increased costs. These could include: development and construction costs, such as legal and other consultants' costs; early engineering work or studies; technical work; and, increases in the cost of capital and the costs of an investor's staff and management. This could also mean that the

investor loses an opportunity to invest its capital elsewhere. Returns generated are therefore generally higher if they are 'at risk' for the shortest time possible and financial close is efficiently reached. (This assumes that tariffs have been agreed at the outset and/or included in the PPP project's tender and cannot be adjusted later to ensure a higher return on capital at risk during the development and construction period.) Therefore, developers prefer to reach financial close for the long-term debt and equity financing as soon as possible after their development equity has been contributed.

Tariffs as a constraint on returns

Assuming a company has decided on a strategy to invest in a certain project or projects, a first step for all investors to pricing for risk – or setting investment return targets – is to understand the risks involved and to manage those risks that it can identify. In a typical project finance structure,[3] the tariffs that are paid for the public services or products, whether by government purchasers or by the ultimate consumers or users, are often the sole source of revenue. This revenue would have to cover the payment of all project development, construction, operating and maintenance costs, the repayment of principal and interest and loans and, ultimately, return of capital and dividends to shareholders. The more risks that the private investors are asked to assume, the higher they will expect the tariffs paid by the purchaser or users to be. Yet, in many infrastructure sectors, such as electricity and water, and especially in the focus countries, PPP tariffs are regulated so that the upside potential for equity investors is capped. In some countries and sectors, it is simply not politically feasible to raise tariffs to the level where they meet the investors' targeted returns. This is because they would be unaffordable to consumers. In such cases, investors may be willing to try to achieve their targeted returns by lowering overall project costs or finding creative ways to reduce the risks they are asked to assume.

Types of equity investors

Public-private partnership projects attract a variety of equity investors. In this publication, investors that have a controlling[4] interest in the proposed venture are called the controlling shareholder.[5] As with PPPs everywhere, investors in PPPs in the focus countries can include[6]:

- construction companies, equipment suppliers and service providers;
- project development companies
- private equity or other specialised investment funds
- industrial companies
- individual or family investors
- governments and government entities
- DFIs' equity and infrastructure project development facilities.

Construction companies, equipment suppliers and service providers, whose primary motivation in developing and building a project is usually to sell their services or supplies and equipment to the PPP project at an attractive price. These are often the same companies that bid on public procurements and whose business model is to deliver the service or completed construction at an agreed cost and on an agreed timetable. In a public procurement, they would then exit the contract once they had received full payment for their services or equipment, and after any warranties they had provided had expired. These companies can often be the impetus and an excellent source of equity (as well as technical expertise) for PPP projects in a country. However, they may not have in their DNA the appetite for the risks that project development, ownership and control over a complex, long-term PPP typically require. This is especially the case in a PPP project in a challenging environment. Not many companies are prepared to spend the considerable amount of money on the development of a project without some assurances. (In some larger and more complex projects, this figure can be the equivalent of $50 million or more.) But they could be willing to do so on certain conditions: that the project is fairly likely to proceed; and that they are likely to be able to find a strategic investor that is willing to pay or reimburse the construction or equipment supply company for its costs, ideally at a premium, at the earliest possible moment; or if the government is willing to reimburse their costs if the project fails to reach financial close for reasons beyond the company's control.

It is expected that shareholders who also have an interest as a construction or service provider are incentivised to make a reasonable return as a shareholder, not just as a contractor, over the longer term. This ensures that all the shareholders' interests are aligned for the entire duration of the project.

Project development companies, whose business involves all the activities required to bring a project to the point where it is ready for construction. This takes place during what is known as the project development phase. It includes the on-the-ground work such as permitting, land acquisition and government liaison work described in Chapter 3. It can sometimes also involve the implementation of, or oversight over, the construction and the operation of the asset beyond its construction and over the life of the concession or licence. Sometimes, the project development company's business model involves only the achievement of certain key project development milestones and reducing the risk of the project not reaching financial close. Examples are the acquisition of needed land, the signing of key government licences or agreements, obtaining of important permits, and preparation of environmental studies and development of an environmental and social management plan. This is sometimes called de-risking the project. And this type of investor typically may expect only to be involved to the extent and for the period necessary to de-risk the project sufficiently to attract investors and then to sell its interest in the project at a premium at financial close to another type of investor.[7] Project development companies 'charge' their cash expenditure as costs of the project, including the fees and expenses of third-party consultants and advisors they may hire to undertake some of the development tasks. They may also charge the time and associated overheads of their staff and management devoted to the project's development. This is sometimes called sweat or development premium.

Private equity or other specialised investment funds, which are legal entities, often get set up with a limited life, unlike perpetual legal entities such as corporations. In these arrangements investors rely on a manager and investment committee to identify and to effect an investment in the kinds of projects and companies meeting the investment and diversification criteria of the fund. The manager charges a management fee for its services and often is paid an additional fee for successful investments, known as 'carry'. One issue that can arise is the need for these funds to exit investments once they meet certain time-based or financial targets and also to wind up and close the fund near the end of its term. This can pose a challenge for the sponsorship and operation of long-term PPP projects which benefit greatly from stable ownership and management of the venture. Professionals at private equity or other types of funds are skilled at negotiating the financial terms and instruments relating to their investments in the company set up to execute the PPP. However, these professionals may not be experienced in project development, which is another skillset, which involves persistence, patience, flexibility and resourcefulness. It is critical to ensure that the PPP project be staffed with seasoned project development professionals or that the services of a professional development company are retained if the private equity fund is expected to take the lead developing and implementing the project.

Industrial companies already active in the country or region or seeking to diversify geographically, or who are seeking less expensive and/or more reliable public services. For example, a mining company might be willing to build a power plant to ensure that it has a reliable and less expensive source of power to operate its mining business competitively, or to build a road, railway or even a port to bring its product more efficiently to local or international markets. These companies can be an effective source of funding for early stage development, construction and operation of PPP projects that are extended to benefit not only the industrial company but also to supply excess product or access to the PPP infrastructure to other users.

Individual or family investors wishing to expand their businesses into new sectors or countries, or who simply see an investment or entrepreneurial opportunity. Such an investor may, for example, secure an exclusive licence to develop a project and then bring in other investors that have more cash and expertise to contribute to the project's development or to buy out the initial developer's interests. Local investors and developers can be helpful to international investors and lenders as they can be knowledgeable about the local environment and the government officials and other local players necessary to make the project happen. It is important for the shareholders to come to agreement on the value of their respective cash and other contributions to the venture, including in-kind contributions. There also needs to be agreement about the commensurate level of control of the company's business that each investor can expect to exert over the business. It is common for smaller investors to partner with a strategic investor. A strategic investor is an entity that has both the necessary money and technical and managerial track record of developing similar PPP projects – usually one of the other kinds of investors described here.

Governments and government entities, which may wish to have an ownership interest in the project company. Government ownership can be useful to align the interests of the government with the project's success because of the possible returns that would accrue to the government as a shareholder. It can also be a way of the government keeping some oversight over the project or learning how international companies design, build and operate comparable projects in other countries. Given the role of the government as grantor of the right to build the PPP, there is a natural tension between the interest of the government as a grantor to keep pressure on the private partner to perform as agreed and to keep costs down and the interest of the government as a shareholder. Given this layer of complexity, private stakeholders (both investors and lenders) require that the government is not given too much control as a shareholder over the project company. It is also important that the contributions of the government or government entities be transparent, either in cash or having a value that can be independently corroborated.

DFI equity and infrastructure project development facilities – while DFIs normally play a large lending role in PPPs, a number of DFIs are empowered to invest in the equity of private project companies in emerging markets. In this capacity they are usually passive, minority financial investors,[8] and they do take on this role frequently. Development finance institution equity financing can bring an important source of equity capital to a large or complex developmental PPP project. This is especially the case in the focus countries, where other investors may wish to limit their financial exposure until the project has proven to be successful. But the involvement of DFIs in the equity of a project company can also demonstrate that a financial investment in these countries can earn a reasonable return as well as achieve development impact. And it can provide informal comfort to governments, investors and lenders that the project is balanced and that the parties are likely to respect their obligations under the project contracts.

These DFIs provide long-term capital and also funding for the development stage of a project. They can also mobilise equity from sovereign and institutional investors (such as through IFC Asset Management Company[9]), grants and concessional funds for both equity capital and in some cases development funding. And sometimes the grant funding does not have to be reimbursed.

Some examples of DFI equity and infrastructure project development facilities

Because they are so active in infrastructure projects in the focus countries, a number of DFIs have set up special structures and project development facilities specifically for equity or similar funding for these projects.

Dedicated project development facilities

Several DFIs and governments have established project development facilities or funds to develop and then to mobilise long-term funding for the construction and operation of PPP projects in developing countries. Some of these facilities or funds are structured more or less along the lines of private project development companies. (IFC InfraVentures[10] and InfraCo[11] are examples of these.) They contribute funds on a commercial basis in the sense that the entities expect to be compensated in some fashion for the early-stage development risk of the project if the project proceeds. (Compensation could be in the form of an option to invest equity as a shareholder or to provide debt to the project or in the form of a fee or development premium.) These facilities expect that a certain proportion of the projects they undertake will fail, and they are prepared to write off their investments in those projects if they turn out not to be technically, commercially or financially feasible. In general, these DFI facilities do not have the substantial resources to be the lead developer of a project.

Funds can be provided on a concessional basis

Alternatively, some DFI facilities or funds provide funding on a concessional or partly concessional basis and do not expect to make a commercial return on the development facility's investment or expenditure. Some of these facilities (such as the Dutch bilateral DFI, known as FMO[12]) provide grants for project development that are written off if the project does not proceed. Or sometimes the grants are converted into equity or a loan that is expected to be repaid if the project succeeds, often subordinated to the interests of other later-stage investors. These entities are not generally set up to undertake or control the development or actual physical construction or operation of the PPP project.

IFC InfraVentures

IFC established IFC InfraVentures, the IFC Global Infrastructure Project Development Fund,[13] in 2008. It was set up to respond to the need for well-structured PPPs and private infrastructure projects for the pool of investors eager to invest in good or promising projects in developing countries. IFC InfraVentures has been an important resource as there are not enough equity investors that are prepared to commit the substantial funds and professional development resources over a multi-year period to get an infrastructure project to financial close in the riskiest environments. This reluctance to commit resources to the early stage development of PPP projects is a key constraint to private participation in infrastructure projects in the focus countries.

IFC InfraVentures is a $150 million fund that provides substantial funds to the tasks of the development phase of a PPP, which include the costs of feasibility and environmental studies and hiring of consultants. It also serves as an active, hands-on developer or co-developer of PPP and fully private sector projects. It is involved in crucial activities, such as negotiating balanced PPP and project documents, building financial models, mobilising investors and commercial and concessional debt and political and other risk products as required, and liaising with government officials. Its business model involves being compensated for its contribution of development expenses at some stage and in some form that can be structured to match the requirements of the project. IFC InfraVentures is not an advisory service; it acts as a commercial investor (a principal) in the early stages of the PPP's development.

IFC InfraVentures is staffed with skilled professionals, including infrastructure investment professionals and project developers and lawyers, engineers and environmental and social specialists. It is supported by (and supports) the global and regional staff of IFC to bring projects to financial close as efficiently as possible. IFC InfraVentures also draws on IFC's institutional recognition and standing as leverage with governments, investors, and key sector players. Its institutional weight and reputation provide comfort that the PPP projects are well-structured and balanced and therefore likely to be sustainable for the long life of the PPP project.

Infraco

Another example of a DFI-initiated and managed development fund is InfraCo.[14] This is a multi-government funded, privately managed company providing early-stage development capital and expertise to develop infrastructure projects in sub-Saharan Africa and Asia. It also acts as an 'honest broker', seeking to create viable infrastructure investment opportunities that balance the interests of host governments, the national and international private sector and providers of finance. InfraCo is a facility of the Private Infrastructure Development Group (PIDG), a coalition of donors seeking to mobilise private sector investment into infrastructure in less developed countries to boost economic development and alleviate poverty.

Other DFI investment vehicles

The German and Dutch bilateral DFIs[15] also have early-stage development or project preparation facilities; and AfDB has recently sponsored a new investment vehicle, Africa50,[16] which makes funds and other resources available for project development and implementation purposes.

IFC has a wholly-owned subsidiary called IFC Asset Management Company. Created in 2008, it is a management company of equity funds comprising sovereign funds, pension funds and other institutional investors. This is an important pool of additional long-term capital – or capital for the project beyond the development phase – for well-structured PPP investments around the world in which IFC invests.

Debt: lenders

Including lenders in a typical PPP structure vastly increases the pool of money required to meet the enormous needs involved in providing public services and products around the world, including in lesser developed and challenging countries. Equally important, including debt in the funding of a PPP brings the overall cost of the PPP down and can make it more affordable as discussed above. As a result, structuring PPPs in such a way to make them attractive to lenders or, at least acceptable, is critical to the growth of PPPs and the delivery of public services and assets in these countries. If the risks that lenders are expected to take are so many or individually so great (in likelihood and/or magnitude), the lenders will charge a higher rate to compensate them for this increased risk. Higher loan costs translate directly into higher project and tariff costs.

As a reminder, this publication is using the project finance structure as the basis for its discussion. The project finance structure is the most efficient and simple in the sense that lenders only need to concern themselves with the liability and risks of the individual project being financed. The other businesses and assets of the company are not part of it. It is also relevant as it is among the most common types of structure in PPPs in the focus countries, as it is the preferred model for investors for this kind of environment and it enables the government-pays payment mechanism.

The discussion on debt and lenders in PPPs looks at the impact of debt financing on PPPs – both positive and negative. It then gives an overview of the different types of lenders. This is followed by a discussion on the project finance structure and how it is put together. The final part looks at the difference between construction lending compared to long-term lending, because construction lending is common in infrastructure PPPs.

The impact of debt financing of PPPs from the perspective of government

Introducing debt into the financial structure of the PPP project can benefit the government grantor of the PPP concession in the following ways:

- lower cost should translate into a more affordable project. However, it can potentially introduce some foreign currency risks if international long-term lending is involved
- lenders' detailed review of feasibility studies and close monitoring of the implementation and operation of the project brings financial discipline to the project. (Lenders want the assets they finance to be well managed, not only to repay their loans but for possible re-financings and the entry of other investors, as well as pursuing other new business in the country)
- DFI involvement in the project financing often provides comfort that the project is balanced and does not disproportionately favour either the private or the public sector stakeholders
- if the project is successful and the stakeholders are all incentivised and comply with their respective obligations over the PPP's life, there is a greater likelihood of other financial institutions (and investors) bringing private sector financing to projects in the country.

On the other hand, involving lenders in a PPP project can introduce certain disadvantages from the perspective of government. For example, lenders tend to be conservative in their assessment and allocation of risks in a project, especially in relation to risks that may be new to them. They may want to impose on government most or all risks that their borrower cannot control. In addition, lenders typically wish to have a direct contractual relationship with the government as the grantor of the concession to the lenders' borrower that may restrict the government from exercising its rights against the project company. Lenders also often expect to be fully compensated on early termination of the concession, even if the reasons for termination relate to a breach of the concession by the project company. Governments need to weigh all of these disadvantages against the advantages of accepting involvement of project debt lenders in a PPP's financing.

Types of lenders

There are many types of lenders to PPPs around the world offering a range of debt products and bringing different benefits to a project. Each has its own risk appetite and perspective of risk. The more risk that a lender is willing to take, the higher the interest rate or cost of the debt product and the closer to the price of the equity investments it leverages. Secured lenders expect to be repaid before unsecured and subordinated lenders during the project's operations and in bankruptcy. As a result, senior, secured lenders' interest rates are lower than, say, secured and unsecured subordinated lenders' interest rates. It is critical for a government, equity investors and their advisors, and other PPP stakeholders to understand the business model and risk appetite of PPP lenders, just as it is to understand what drives the shareholders to invest in a PPP project. It can help to make sense of the sometimes seemingly lengthy and extensive negotiations among all PPP stakeholders.

Below are a few of the most common types of institutions involved in PPPs in the focus countries and the types of instruments they offer. It is important to note that not all of them feature in the most challenging environments. This is mainly because of the constituencies these types of investors represent. Another reason is the resources initially required for them to become comfortable with the environment and project risks (or to help their constituencies become comfortable) and subsequently to manage the debt investment:

- commercial banks
- donors
- export finance or credit agencies
- bondholders
- sale and leaseback lenders
- political risk institutions
- host government loans
- shareholder loans
- equipment suppliers
- investment funds
- development finance institutions.

Commercial banks: can be local and international banks and offer senior and subordinated or mezzanine, secured and unsecured, debt, sometimes convertible into equity and or attaching warrants or other participating features. Commercial banks often lend individually or in groups (called clubs or syndicates) in which one of the banks takes the lead in documenting and organising the lender group. Syndicate banks are severally obligated to provide their loans; the banks are not usually willing to underwrite one another's loans or be jointly and severally committed on the loans. Commercial banks' primary agenda is to earn fees (for example, as lead debt arranger, commitment or front-end fees) at financial close and to get the project to completion so that the project can begin to generate revenues to repay the loans at the specified interest rates. A big benefit of commercial bank financing derives from these drivers and allows commercial banks to be flexible in their terms and on amendments or waivers or the need to refinance as necessary, if the circumstances of the PPP project change over its long life.

Donors: several DFIs also administer trust funds that are earmarked by their donors to support PPP projects meeting certain investment criteria. These could include, for example, renewable energy or environmental protection projects. They could also be for projects meeting developmental objectives, such as projects contributing to a city's resilience to manage the public services needed for a growing urban population. These trust funds can be provided as grants that are convertible into equity of the project or deeply subordinated debt, but not at a higher rate than would normally be commensurate with riskier debt products. This is sometimes called first-loss debt. This concessional money is sometimes also called blended finance because the costs of this less expensive debt is blended with the more expensive debt to provide an overall cost of the debt that is workable for the project's cash flows.[17] These donor funds cºan sometimes be used in making the project affordable as they could reduce the overall capital costs or supplement revenue or cover certain risks. This can help to plug gaps in finance.

Export finance or credit agencies (often called EXIMs) are usually an arm of a government that is mandated to provide funding to projects that involve companies from that government's country. This could be, for example, an equipment supplier, a construction company or the project's controlling shareholder. An EXIM may make direct loans to a PPP project, either for the PPP term or only for the construction or operations phase. Or it may provide a political risk or commercial guaranty directly to lenders of the project, payments

for which are triggered by one of the covered events. The EXIMs are a vital part of the PPP landscape and can often provide the project with an additional voice with the host government if the EXIM's government has a relationship with the host government.

Bondholders as lenders in PPP projects in countries that have a bond market are usually structured through indentures or trusts and have a great deal less flexibility in their terms and their administration. They are not key players in the type of PPP discussed in this publication. However, many DFIs and the G20 are examining whether it might be possible to create an infrastructure asset class for institutional investors using a bond structure.[18]

Sale and leaseback lenders arrange for the purchase of assets from the project company and the lease back to the project company of those assets. This form of financing is uncommon in the markets which are the focus of this publication.

Political risk guarantors, insurers and lenders: some institutions, such as DFIs and export-import banks, provide cover to PPP project companies or their shareholders and lenders. This is for certain kinds of risks that the government cannot or will not provide a guaranty against. It can also cover risk situations where the government is willing to provide a guaranty, but the private stakeholders have limited confidence government would be able to fully honour that guaranty. This means that the political risk guarantor or insurer will make payments to the guaranteed or insured party if the occurrence of a political risk event prevents or impedes the company from completing or operating the project and generating sufficient revenues to service the project company's debt. These lenders must have become comfortable that the political risks are unlikely to arise. Or they must have sufficiently healthy relationships with the government that the lenders are sufficiently comfortable that if the political risk arises and interferes with the project, the government and the lender will work together to ensure that the project is protected and able to service the debt. If the political risk provider must pay out under its contract, it is subrogated to the rights of the insured party *vis-à-vis* its rights and may enforce those rights against third parties. In the case of a payout to lenders, the political risk provider effectively becomes a lender to the project. The costs of these products are counted in project costs and indirectly can affect tariffs, with the political risk cover costs being higher for an increased scope of coverage.

Host government loans are sometimes provided on terms required to fill a gap in the need for debt financing or to keep the tariffs at a certain level. Sometimes these loans are funded by other entities, such as the WBG or an EXIM.[19] (The Pamir energy project in Tajikistan illustrates this. See Chapter 6 for a full description of the project.) The commercial terms can vary greatly. Given the additional interest of the government as grantor of the PPP or concession, usually the other lenders are motivated to enter into intercreditor arrangements that will subordinate the control that the host government as lender can exert over its loan.

Shareholder loans are sometimes provided as bridge funding because of delays in the long-term debt financial close. They may also be provided as support for project completion. The commercial terms of these loans can vary greatly. In nearly all cases, because of the additional interest of the controlling shareholder as a shareholder, the other lenders will require these loans to be deeply subordinated, at least in terms of voting, and usually also in terms of payment, security and bankruptcy.

Equipment suppliers are often prepared to provide equipment financing on attractive terms. The commercial terms of these loans can vary greatly. In nearly all cases, because of the interest of the equipment supplier in the sale of its equipment, the other lenders will require their loans to have priority over these supplier loans, at least in terms of voting.

Investment funds can provide an important source of financing just as they do in the provision of equity capital. There are so many types of funds with so many types of investors that it is difficult to generalise about them. One of the keys to including a fund that comprises sovereign wealth investors, insurance companies and/or pension funds is to understand the degree of discretion that they provide to the fund manager to invest and divest and to take decisions on behalf of the fund investors over the life of their investment in the project. In addition, it is important to understand the investment criteria and any special other requirements. These could include integrity, environmental and social safeguards and other development objectives. They could also include exclusions from certain kinds of investments or countries that the underlying investors may have that could influence how the lender group as a whole functions over the life of the PPP.

Development finance institutions have a dual mandate. They need to have developmental impact, as well as to earn profits so that they continue to have resources to invest in more projects with developmental impact. Development finance organisations, including multilateral organisations, the regional development banks, and bilateral institutions, lend to projects in developing countries that are likely to have high development impact. These institutions may have sophisticated methods for anticipating, monitoring and evaluating and reporting the development impact of their projects. They typically have a close relationship with governments around the world because these institutions are organisations formed by treaty, with the member countries effectively being the shareholders of the institutions. Development finance institutions provide financing to governments and government entities and, often with a sovereign guaranty, to subnational entities. Especially in the focus countries, DFIs provide a disproportionately large percentage of debt funding in the initial rounds of PPP projects.

Many DFIs also lend to private entities investing in their member countries without the benefit of a public-sector guaranty of the debt through a private sector window, or sometimes through a separate part of the institution or group.[20] The private sector operations of these institutions lend at commercial rates and are prepared to bear commercial and technical risks but only some political risks. Some DFIs offer political risk products to provide assurances to investors that are not prepared to take certain country, regional or political risks. The WBG's $2.5 billion IDA 18 IFC-MIGA Private Sector Window (PSW) is designed to catalyse private sector investment in the poorest countries through the provision of political risk insurance (PRI) and government counterparty coverage for project finance loans and equity investments.[21]

Likewise, a number of other DFIs have set up, individually or jointly with other DFIs, government agencies or other donors, entities that provide various forms of debt and political risk instruments to projects meeting their development objectives. Examples include the PIDG, the Emerging Africa Infrastructure Fund,[22] and Guarantco.[23] The bottom line, though, is that, even without having a formal political risk contractual guaranty or insurance, these DFI institutions, by virtue of the relationship with their member countries, can provide some political comfort to investors and lenders. This is the case even if the protection is more in the nature of soft or *de facto* political comfort or protection. Development finance institutions are often willing to lend in countries during less stable periods, when commercial institutions and other investors may be reluctant to invest or may be actively seeking to withdraw from the market.

Development finance institutions also offer different kinds of local currency instruments and structured products such as hedging and interest rate and currency swap products. The International Bank for Reconstruction and Development (IBRD) makes hedging products available to its government clients – typically interest rate swaps. International Finance Corporation, IaDB, EBRD, ADB and AfDB all make local currency loans available. The EBRD, IFC and several other DFIs also provide client swaps. These financial instruments are key to the management of foreign exchange risks in PPP projects that only generate local currency revenues.

Debt mobilisation

The mobilisation of debt is a highly specialised area of PPP finance and a critical source of funding for PPPs. This is especially the case in the focus countries, and where there may not be depth in the commercial lending market.

Debt mobilisation is the process whereby a lead debt arranger is equipped and permitted to bring in other lenders and organises the structuring of their debt. For example, DFIs may bring in commercial banks in less risky countries and other DFIs and export credit agencies in more challenging investment environments.

DFI tax and other immunities and preferred creditor status

In exchange for a DFI's willingness to lend to private sector entities in their developing member countries in both good and more challenging times, member countries have agreed to provide for certain immunities from taxation, as part of some DFIs' constituent documents.[24] In addition, some DFIs have a legal or practical right to have preferred access to foreign exchange in the case of a moratorium on availability of foreign currency in the country. This is known as preferred creditor status.

Several DFIs mobilise the large amounts of necessary PPP funds from commercial banks through a so-called B-loan programme. This provides for commercial banks outside the project host country to participate in the DFI's loan to the private sector borrower. In exchange, the so-called B-loan participant is treated like the DFI with respect to its tax immunities. These commercial banks also enjoy the DFI's preferred creditor status and are therefore able to avoid reserving for loans made under the B-loan programme.[25] Some DFIs have *de jure* preferred creditor status and others have only *de facto* preferred creditor status. In practice, involvement of a DFI in a PPP project financing can benefit not only the lenders in the DFI's tranche, but the entire project. This is because the entire project may be excluded from a mandated country debt rescheduling of its foreign debt.[26]

In difficult environments, a number of DFIs routinely band together to provide the needed financing. They use standardised common documentation under the umbrella of a master cooperation agreement (MCA),[27] which has been signed by many DFIs. This substantially streamlines the financing process, which can otherwise be considerably lengthy. This is particularly the case when taking into account the extensive and comprehensive due diligence process the DFIs follow to approve loans because of their duty to their respective shareholders and bond holders.

Loan securitisation

Several DFIs also have the ability to securitise their loans, especially their secured loans and other debt instruments. This means that the DFI establishes a new company to issue a new independent financial instrument that combines a diverse or homogenous group of loans or other debt instruments. It then markets different tiers of the repackaged instrument to investors.

Securitisations are sophisticated instruments requiring a high degree of structuring. They are only used in more highly developed countries or where there are more sophisticated investor groups that are capable of evaluating both the risk of the underlying instruments and assets, as well as the securitisation product.

Project finance: lending against project cash flow

A key way for investors and lenders to manage risks of PPP projects is to structure an investment as a project financing, or limited recourse financing. This means that the project, its assets, its contracts, and its inherent financial and economic health and cash flows are financially segregated from its controlling and other shareholders. In making their credit assessment and loan to the project, investors and lenders look only to the assets and revenues of the project to repay their loans – not to the balance sheet, assets or cash flows of the controlling shareholder. In exchange for the lenders' reliance only on the project assets and revenue generation to repay their loans after the project has been built and has begun to generate revenues, the lenders are likely to charge a higher interest rate than they would charge for a loan to the controlling shareholder, assuming it is creditworthy. This is to compensate for the additional risk of the project, which has no revenues at the time of the loan.

Impact on the credit or balance sheet of the controlling shareholder

In addition to insulating the controlling shareholder's assets and revenues unrelated to the project from foreclosure by the project debt lenders, the project finance structure allows the controlling shareholder to achieve the following main outcomes:[28]

- the project debt does not appear on the controlling shareholder's balance sheet, nor in its balance sheet footnotes. (It is off-balance sheet.[29])
- incurrence of the project debt does not affect the controlling shareholder's ability to incur additional debt that might otherwise be restricted by its lenders in the controlling shareholder's loan agreements or bond instruments
- the leverage of the project frees up the controlling shareholder's cash for other opportunities
- the project debt does not result in any further restrictions on the controlling shareholder placing a lien on its property
- the project debt does not affect the controlling shareholder's credit rating
- when the controlling shareholder may have direct liability for certain obligations relating to the project during the period before the project begins generating revenues, the liability is limited in time to that period, and to the amount (usually capped) that the controlling shareholder has committed to complete the project on time. This is typically during the construction and start-up or commissioning phase
- if the controlling shareholder is financially insecure or weak, credit providers may find a project company more attractive than lending to the controlling shareholder itself
- involvement of a project company allows a controlling shareholder that may have legal or regulatory constraints to engage in the proposed business
- the parent or ultimate shareholders of the controlling shareholder may be reluctant to take the reputational risk of engaging in a project, but may find it acceptable for an independent subsidiary, or SPV, to do so
- if the new SPV (subsidiary) is carefully organised to have separate governance and independent financial obligations from the controlling shareholder, and the parent is not essentially an alter ego for its subsidiary, its debt should not be consolidated with that of the parent in bankruptcy of the parent[30]
- the introduction of debt into the capital structure allows the costs of the project to come down and makes it more affordable and politically palatable, if these savings are translated into tariff reductions. The project is therefore more likely to succeed and thus financially benefit the controlling shareholder.

The role of controlling shareholder support in PPP project financings

Some prospective controlling shareholders may over-simplify the concept of project financing and believe it is entirely, for them, off-balance sheet. They may thus presume that lenders will be prepared to rely only on the cash flows from the project and not at all on the creditworthiness of the controlling shareholder or other third parties if construction or operations go awry. This is not the case, especially in the focus countries which would require tenacious and flexible long-term commitments from the controlling shareholder.

While project finance lenders are prepared to look to the project for sources of funds to repay their loans, lenders want to be certain or relatively certain that they are going to be repaid either by the project, the controlling shareholder or another third party. In some projects involving well-established technology in less challenging country or political environments, the contingency built into the financing plan may be sufficiently large that the lenders are prepared to look only to the base initial equity contributions of the controlling shareholder. This could be to cover delays in completion or cost overruns or other interferences in the project that threaten the payment of interest or repayments of the loans. However, it is common, especially in the focus countries, for project finance lenders to require that they have recourse to the controlling shareholder for a capped amount or limited to certain situations and for a limited period. It is also common that there could be circumstances during the life of the PPP when the lenders look to the controlling shareholder to repay their loans or to pay damages to the lenders, typically in the amount at least equal to the amount of their loans. This is in spite of the limited or non-recourse nature of the financing. In particular, lenders are not prepared to risk non-payment of their loans if the controlling shareholder breaches its limited undertakings, such as contributing its agreed equity, misrepresenting anything about the project or the project stakeholders, committing fraud or corruption, or financing terrorist activities. Local law also commonly restricts the extent to which shareholders can limit their liability for personal injury or death or compliance with law.

In many cases, lenders may in addition require a controlling shareholder to provide credit, security or other support targeted to address a particular risk. An example would be the completion of the project on time or on cost so that the project can start to generate the expected revenues according to the expected timetable. Timely completion of the project allows loan repayments to begin as scheduled and avoids the risk of termination of the PPP concession for delays beyond permitted deadlines.

These undertakings for project completion or controlling shareholder support must usually be reflected on the balance sheet or its footnotes of the controlling shareholder, and appropriately disclosed to its shareholders, rating agencies, lenders and others. Controlling shareholders may be willing or convinced to assume these obligations because of the control they exert over the project design, management, construction and operation. Controlling shareholders are generally not enthusiastic about assuming risks outside their control. (See the discussion in Chapter 5 of the different kinds of project risks and how they are commonly managed.)

Project completion and the effect on the controlling shareholder's financial exposure

Project completion undertakings are required to be in place starting at the financial close of the long-term debt financing and ending on a date usually several months after the project's construction has been completed, operations have begun and revenues have started to be generated and are consistently being earned. This is to ensure the stability of operations before the release of the controlling shareholder from these obligations. A controlling shareholder may fulfil its completion and other support obligations by a contractual undertaking, such as a guaranty or undertaking to contribute cash, cash or collateral, a letter of credit, or a combination of these instruments or undertakings to cover the following types of obligations:

- completion guaranty: covering some or all the loans, payable to the lenders if specified completion conditions are not completed as planned
- construction or project completion support (that is, a commitment of additional equity contributions): payable to the project company, usually in an amount necessary to reach completion and to pay for the costs of delay or cost overruns
- commitment to partially repay the loan if the ultimate capacity or performance of the project is below the project's promised performance affecting the project's revenue stream in an amount designed to bring the size of the debt to a level that can be supported by the actual capacity or performance achieved. This is a so-called 'buy down' payment, and is often required where the controlling shareholder is also the contractor
- targeted commitment to contribute additional equity to cover a risk, such as: an environmental risk's effect on the costs of construction or operation; or lower-than-expected proven resource or market, for example, the users of a toll road; or the pricing of a product or service. (These additional controlling shareholder commitments are required by the lenders in cases in which the controlling shareholder has accepted these risks under the PPP contract)
- equipment warranties and technical support. This is usually in the controlling shareholder's capacity as a construction contractor or service provider

Lenders also often require that the controlling shareholders agree not to transfer their ownership and control of the project company until at least project completion. This is sometimes referred to as share retention obligations. The controlling shareholders may also be required to retain shares beyond project completion, though lenders sometimes allow the controlling shareholders some flexibility to monetise a part of their investment as long as they retain control of the project company. Monetisation can be done through a transfer of their shares or the recapitalisation of the project company. Share retention obligations are required by the lenders to ensure the stability of the project company's management and governance and to keep the controlling shareholders firmly focused on the project company's well-being. For the same reasons, lenders often also impose restrictions on the payment of dividends by the project company to the controlling and other shareholders until project completion, and subject to certain other conditions. These are known as dividend stoppers. Each of these controlling shareholder requirements or limitations can affect controlling shareholder return expectations and are therefore intensely debated with the lenders.

See Annexure 3 for an example of the conditions of project completion.

Construction lending vs long-term lending and refinancing risk

An infrastructure PPP, by our definition, includes the construction and operations phases of the project. While somewhat uncommon in the focus countries, some lenders will provide financing for the construction period only and expect to be repaid at that time. If construction lending is envisaged, construction lenders typically require that long-term, operational period financing be committed at the time of the construction loans. If this is not possible, construction lenders may require that the controlling shareholder repays or guarantees the repayment of the construction loans. Construction lenders typically lend at a higher interest rate than an operations-phase lender because of the inherent risks involved in the project failing to reach project completion or reaching it late or over cost or deficient in certain material respects. It is critical for construction lenders, and the controlling shareholders and project company, to know that there is a committed or realistic plan for 'take-out' financing at completion so that the construction lenders are not at risk for non-payment of their loans. For example, commercial banks may lend for the construction period and expect an institution such as an export-import bank to provide 'take-out financing'. However, if the take-out financier has many conditions to proceeding with the take-out financing, the initial lenders may find that they have no exit for their loans.

Some construction or other lenders may be willing to refinance when the project begins to generate revenues. They may be unwilling at the financial close of the construction financing to commit to the interest rate of the loans at the time of project completion and commencement of operations. Many of the development and construction phase project risks are likely to have been mitigated or eliminated by the time the project reaches commercial operations, justifying lower interest rates. However, by the time commercial operations commence, several years may have passed and the entire interest rate environment may have changed by that time. The country and economic context may also have changed so that interest rates may generally have risen. This uncertainty about the costs of debt introduces a substantial risk of increased costs to the company that lenders and the controlling shareholder may be unwilling to assume. Conversely, if there are savings in refinancing, (whether at project completion or during the life of the project), many governments require that they be entitled to share the benefits of the lower interest rates. This is usually through an adjustment to the tariff to make it more affordable.

Many lenders will lend with a tenor that covers the construction and operations periods and through the length of the PPP contract. This is ideal in terms of the predictability of the project costs and the project's stability overall, even if the parties agree at the outset that the loan pricing will change to another agreed rate at the time of project completion.

The next chapter outlines how lenders and equity investors identify and evaluate the risks that arise in PPPs and which especially arise in the focus countries. It is also a crucial component for governments, because they are a central part of the risk allocation arrangements. To varying extents, equity investors and controlling shareholders are – or should be – focused on the same sets of risks that lenders identify. However, they may be willing to take more of the risks identified, given that they will control and manage the PPP and that they expect higher returns for the risks that are retained or assumed by the project company. A more immediate concern for equity investors and the controlling shareholder of a PPP project, however, is to help the project lenders become comfortable with the risks of the project and their management. It is a delicate dance.

Endnotes

1. All the focus countries are developing countries. Some are lower-income developing countries; some are FCSs; and some are simply developing countries that have not yet been able to attract private investment on a sustained basis, even though they are not on the lower income or FCS scale.
2. See McKinsey & Company (T Koller, M Goedhart & D Wessels), Valuation, Measuring and Managing the Value of Companies 231-33 (Fifth Edition, 2010);
   https://hbr.org/2015/04/a-refresher-on-cost-of-capital
   https://www.investopedia.com/terms/c/costofcapital.asp
3. Some projects are financed on the balance sheet of a creditworthy company. Corporate financings provide a large percentage of the financing of costs of PPP projects in the emerging markets but are not the focus of this publication. See https://ppi.worldbank.org/
4. For the purposes of this publication, 'control' means the power to influence the management or policies of a person or entity, directly or indirectly, whether through the ownership of shares or other securities, by contract or otherwise. The direct or indirect ownership of over 50% of the voting share capital (or equivalent) of a person is usually considered to constitute 'deemed' control over the person. (The amount is sometimes less in some countries or companies.)
5. Some institutions may call this a sponsor.
6. There are a number of excellent publications that explore in detail the structures and risk allocations of project financings and PPPs. I have drawn extensively from several of them for the purposes of background and to avoid duplication or regurgitation of these resources. Despite the fact that they were written some time ago, they are still apt today. See: Peter K Nevitt, Project Financing Fifth Edition (Euromoney, 1989); Jeffrey Delmon, Private Sector Investment in infrastructure: Project Finance, PPP Projects and Risks (World Bank Publications; 2nd Revised edition, 2009); Practising Law Institute, Project Financing from Domestic to International: Building Infrastructure Projects in Developing Markets (Co-Chairs Robert Thornton Smith & Peter Fitzgerald, Practising Law Institute, 1995);
   See also http://aciclaw.org/news/2016/chapman-and-cutler-llp-financing-public-private-partnerships-us-private-placement-market;
   https://ppp.worldbank.org/public-private-partnership;
   http://www.pillsburylaw.com/siteFiles/Publications/99918BF6A0CDBE17562A667BEFD06C95.pdf;
   http://www.eib.org/epec/g2g/
7. There seems to be a renewed trend for investors to look for operating assets (not 'greenfield' construction opportunities) and to group them into 'yieldcos' or 'platform companies'. These effectively secure a revenue stream to benefit their investors. PPPs are not likely to attract yieldcos as investors/controlling shareholders until they are operational, unless the yieldcos or platforms are owned by or have other operational assets in their portfolio.
8. See, for example: www.ifc.org;
   www.eaif.com;
   www.africa50.com
9. https://www.ifcamc.org/
10. http://www.ifc.org/wps/wcm/connect/Industry_EXT_Content/IFC_External_Corporate_Site/Infrastructure/Priorities/Innovation/Infraventures
11. http://www.infracoafrica.com;
    http://infracoasia.com/
12. FMO's formal name is *Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden*. FMO provides, among other products, both early-stage project development equity funding as well as grants convertible into equity if the project succeeds. See https://www.fmo.nl/infrastructure-development-fund.
13. http://www.ifc.org/wps/wcm/connect/Industry_EXT_Content/IFC_External_Corporate_Site/Industries/Infrastructure/IFC_InfraVentures/
14. http://www.infracoafrica.com/
15. https://www.deginvest.de/International-financing/DEG/;
    https://www.fmo.nl
16. https://www.africa50.com
17. http://siteresources.worldbank.org/EXTEXTINDTRAINI/Resources/Donor_Guide_11-03-09.pdf;
    https://www.rockefellerfoundation.org/about-us/news-media/rockefeller-foundation-ifc-create-new;
    http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/cb_home/mobilizing+climate+finance/blendedfinance;
    https://www.devex.com/news/the-world-bank-s-new-approach-to-trust-funds-85477

18. https://www.oecd.org/g20/topics/development/Report-on-Risk-and-Return-Characteristics-of-Infrastructure-Investment-in-Low-Income-Countries.pdf; https://www.ifc.org/wps/wcm/connect/93a65080487c4fcb9c81bd84d70e82a9/PCG.pdf?MOD=AJPERES; http://blogs.worldbank.org/transport/pensioners-paying-projects-new-meaning-ppp-latin-america
19. https://ppp.worldbank.org/public-private-partnership/financing/government-support-subsidies
20. For example, unlike the ADB, which is a single institution that provides public and private sector lending, the WBG's separate affiliate, IFC, provides loans only to private sector entities or sub-sovereign entities. In all cases this is without a sovereign guaranty of IFC's debt. See https://www.ifc.org
Similarly, the IDB has a private sector affiliate, IDB Invest, formerly called the Inter-American Investment Corporation (IIC). This provides private sector loans without sovereign support. See http://www.idbinvest.org/. The New Development Bank can also provide loans to 'national financial intermediaries' without sovereign guarantees. See https://www.ndb.int/
Corporación Andina de Fomento (CAF) is another regional bank in Latin America. It handles private and public sector finance under the same institutional umbrella, with the private sector programme not requiring sovereign guarantees. See www.caf.com
21. See, for example, https://ida.worldbank.org/financing/risk-mitigation-facility-rmf
22. http://www.eaif.com/
23. http://guarantco.com/about-us
24. See, for example: http://www.ifc.org/wps/wcm/connect/CORP_EXT_Content/IFC_External_Corporate_Site/About+IFC_New/IFC+Governance/Articles; www.idbinvest.org
25. See, for example, http://www.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/solutions/products+and+services/syndications/b-loans
26. See, for example, http://www.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/solutions/products+and+services/syndications/preferred-creditor-status
27. See, for example, http://www.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/solutions/products+and+services/syndications/parallel-loans
28. See: Peter K Nevitt, Project Financing Fifth Edition (Euromoney, 1989); Jeffrey Delmon, Private Sector Investment in infrastructure: Project Finance, PPP Projects and Risks (World Bank Publications; 2nd Revised edition, 2009); Practising Law Institute, Project Financing from Domestic to International: Building Infrastructure Projects in Developing Markets (Co-Chairs Robert Thornton Smith & Peter Fitzgerald, Practising Law Institute, 1995)
29. Off-balance sheet financings and obligations have been controversial for some time, but especially since the global financial crisis of 2008. At this time it was found that accounting firms were advising companies to use off-balance sheet structures to hide the legal, financial and practical obligations of the company from its shareholders, lenders, rating agencies and consumers. This is a highly complex and technical subject and is not addressed in this publication.
30. Accounting, financial consolidation and tax issues are beyond the scope of this publication. However, an understanding of the issues is important so that all stakeholders appreciate and understand each other to properly align each other's interests. (It is important to note that European and US investors may have different consolidation objectives.)

CHAPTER 5

Infrastructure PPPs and risk

Introduction

Allocating risks efficiently and to the appropriate party or parties creates incentives for the parties to manage the risks allocated to them cost-effectively and conservatively. Crucially, effective and appropriate risk allocation helps to bring down the costs of the overall project. The more uncertainty there is surrounding these risks and the inevitable changes that will affect the project over its life, the higher the risk premium is that each party attaches to its own involvement. In PPPs in the focus countries,[1] even the simple perception of risks can lead to an additional risk premium. This can be because of unfamiliarity with the geographic and social and economic terrain, or because there is not yet a track record of successful private investment. Or the country may have experienced stresses that have dampened the appetite of private sector players for engagement. Clear and efficient risk identification and allocation therefore provide for more predictability and stability to the project as a whole.

Risk in a PPP is very different from risk in a public procurement. In a public procurement, the private stakeholders do not own the business and are paid a fee for delivering a project that has been commissioned by the government. As discussed above, while the contractor bears risk for meeting specifications and delivering on time (unless it is excused from this, by political force majeure events, for example), its remuneration is not based on the success of the project beyond delivery, plus an additional relatively short warranty period. By contrast, in a PPP, investors and lenders depend on the health of the project long beyond its construction, and the investors own the business. They therefore consider everything that could derail the development, construction and commissioning or operation of their PPP project, because of the risks posed to their receiving their rewards and having their loans repaid. The necessary risk analysis is carried out in conjunction with an assessment of the investment environment and a determination that it is sufficiently robust or otherwise can be managed. And investors and lenders need to be satisfied that the project fundamentals are sound or otherwise can be managed.

And in a PPP, the government also focuses on these risks. Having chosen a PPP as the route to deliver important public services, which involves handing over a large amount of control to a private partner to deliver these services cost effectively, it needs to become familiar with the risk landscape. This is particularly important in relation to the risks that the private sector might reasonably expect not to bear and to be covered by the government in a challenging environment, but which the government might prefer to shift to the private sector. More generally, the government is interested in a balanced and clear risk allocation among all stakeholders because of the certainty and chances of success it brings to the project.

It would be impossible to outline every single concern arising in every PPP project, as risks are many and they vary from project to project. This chapter looks at the main issues that the public and private stakeholders consider in PPPs generally but that can be especially pronounced in the focus countries. It highlights how these issues are expected to be addressed and managed. Where relevant, this chapter points to possible alternative ways to manage risks that neither the public nor the private sector feel equipped or willing to assume. Some of these issues have been raised in the discussion on the country and political environment and the project fundamentals. (See Chapter 3.)

Private investors and risk

As discussed in Chapter 3, private investors have a variety of reasons for choosing to engage in a PPP. In making that decision, they evaluate the environment, the project fundamentals and the risks of the project. Their aim is to be comfortable that the probabilities are reasonably good that they will not only recover their investment but also earn a return on their investment that is commensurate with the risks presented by the project.

Fortunately, there is a common approach to how these risks are generally allocated and that private investors and lenders expect to see. While it is not an exact science, if there are substantial deviations from these expectations in this risk allocation they may reconsider an investment in the project; or, they may impose such high risk premia, that the project becomes uneconomic. This will be the case if there is not an efficient and cost-effective way to mitigate any unusual risks imposed on them. This would particularly apply in a focus country, especially one where previous private sector investment has been very limited or unsuccessful, or the risks have increased due to natural catastrophes or political or country turmoil.

While investors' identification of risks is similar to lenders', the investors typically have a greater tolerance for risk because their potential returns are higher than the returns earned by lenders. Investors' due diligence begins in the bidding stage of a project and continues throughout the development phase of the project and until commitment and beyond. However, it is the lenders who drive the process.

Why are lenders so involved in the risk identification and assessment process?

Risks that could interfere with the project's implementation or operations are of interest to all stakeholders, and private investors will make their own risk assessments when they bid or propose to engage in a PPP with a government. But the process of due diligence, involving a detailed drilling down to identify and manage or allocate the risks, is usually driven by the lenders in a PPP. This is because of their disproportionate financial exposure to the project costs and revenues and their relatively lower returns. The process begins with the lenders being invited by the private party selected by the government; it continues right through to financial closing, when the loan agreement and security documents are signed; and to the first disbursement of the loans and the beginning of the project's construction or implementation.

A project is usually described as 'bankable' if lenders are comfortable that all the substantial risks of the project have been identified and managed or allocated among the parties and stakeholders. Lenders need to be comfortable, that overall, risks are being addressed in a way that justifies the lenders' involvement and the proposed rate of return on their debt investment.[2]

What role do governments play in the risk identification and assessment process?

Governments can also benefit from the private investors' and lenders' identification and proposed management and allocation of risk. This is because they also have an interest in maximising the predictability of how inevitable risks will be handled and incentivising all parties to meeting their obligations, without disproportionately burdening the government with risk and financial exposure. Finding the right balance is the goal. Ideally, governments and private stakeholders work together to find an acceptable way to get all parties sufficiently comfortable to proceed. Government leadership, cooperation and pragmatism are essential to the process. In countries that have not yet partnered extensively with the private sector to deliver infrastructure, it can be a daunting process but one that can also be illuminating and replicated for other projects, if successful.

As with the discussion on PPPs and finance, for the purposes of this discussion on PPPs and risk, which relates mainly to PPPs carried out in the focus countries, it is assumed that the PPP contract is with a newly formed SPV under a project finance structure.

Types of risk

There are different categories of risk in infrastructure PPPs. Broadly they can be divided into commercial risk, political and legal risk, environmental and social risk, and force majeure. These risks, however, do not usually fall into neat and discrete categories; there is instead substantial overlap. As a general rule, the private party carries the commercial and technical risks, and the government carries the political, country and legal risk. Some risks are shared.

About this chapter

This chapter covers key areas related to risk, which include the process of identifying and assessing risk, and how some of the more important of these risks will be managed or shared among the public and private parties. It looks at the different types of risk and the mitigating measures that are put in place as protection against the risks. The chapter highlights the risks that are most relevant to the focus countries.

Risks and different stakeholders

As discussed above, PPP projects are structured to allocate project risks to the party controlling or best able or incentivised to manage the likelihood of the risk occurring, the impact of the risk on the project, and the best able to absorb the risk at the lowest cost.[3] Risks that no party can control or manage have historically been expected to be borne by the government, especially in the focus countries, where many of these risks are especially prevalent. However, this trend is changing to some extent in some developing countries with a track record of successful private investment. This general structure for allocating risks that no party can control is discussed at relevant points below. A successful PPP shifts all risks neither to the private sector nor to the public sector.

As discussed above, one of the hallmarks of a PPP project is that private sector players should largely be responsible for and assume the bulk of the risks associated with the design, construction and, importantly, the operation of the PPP project. PPP contracts or concessions typically require that companies deliver the agreed product, plant or service in line with agreed specifications or objectives of the government on an agreed timetable. This would be a deliverable in terms of quantity and outputs, or quality and service, or a combination of these during the design, construction and commissioning phase. Thereafter, the contract would involve the delivery of the agreed goods or the operation of the project to deliver the anticipated services consistent with agreed KPIs, during the operations phase. The theory behind this is that the government has typically awarded the PPP concession in reliance on the controlling shareholder's or project company's assertions that it is able to design the project to meet the government's required objectives and its commitments to deliver the specified services at an agreed cost and within a certain timeframe. In other words, the government might have awarded the project to another company if it had known that the winning bidder would fail to deliver on its promises. Because long-term PPP contracts are by their nature bound to confront obstacles, they typically have built-in cushions for both the timetable and the quality of performance. In the extreme, the concession may be withdrawn or terminated by the government if the project company fails to deliver a product or service in a timely fashion and meeting agreed minimum standards.

Controlling shareholder's credentials, experience and commitment: as discussed in Chapter 2, the country environment and government commitment are key determinants of a PPP project's success. Another key ingredient for success of a PPP project in the focus countries is the quality of the project company and controlling shareholder selected by the government to implement and operate the project. The project company or controlling shareholder needs to have financial wherewithal and the technical and managerial experience of successfully executing the same or similar PPPs in similar challenging environments. It needs to show commitment to the country and the willingness to cooperate flexibly with the government, throughout the entire life of the project. If any of these qualities is lacking, the less certain the project is of succeeding. Infrastructure projects are complex and involve many moving parts in any country, and the context and challenges of the focus countries can stymie even seasoned infrastructure developers and construction companies. The controlling shareholder and its competence to deliver on commitments and manage the risks of the project as discussed in this chapter are important during every phase of the project. Therefore, all the parties focus on ensuring the quality and commitment of the project company and its controlling shareholder. This includes a balance of incentives and disincentives, as well as finding the right level of protection to maximise the chances that they stick to the plan and deliver on the agreement.

One aspect of controlling this risk for the government is that it selects the right company as a partner. The lenders will also closely evaluate the quality of the project company and controlling shareholder and its proposed management team. A PPP will most likely be able to attract high-quality project companies and controlling shareholders if the specifications for the bidders are detailed and demanding. In particular, they need to ask for evidence of the track record of each bidder and its proposed management team in similar projects. The terms described in the government's competitive tender or award for the project should be balanced and permit a reasonable return on an investor's investment for their quality performance to keep them incentivised.

Projects are most assured of success if the project company and its controlling shareholders are strong financially and technically, have a good reputation and are committed to the project and the country over the medium and long term. This implies the commitment not only of money but of strong and seasoned management and full-time supervision on the ground. They need to have the requisite skills to liaise in the local language or a language that all parties are comfortable with, to communicate effectively with government counterparties and contractors, employees and the community.

Incentives for the project company and shareholders: the government naturally must be able to require that its private partner will deliver the project on time and budget and perform over the long term as required by the PPP contracts. The PPP contracts must include positive incentives to do so, as well as penalties for failure to do so because of the need for their commitment and compliance over the long life of the project. Without these built-in incentives, the project could easily founder or the project company or its controlling shareholders could abandon the project. Typical ways to manage this risk are to include detailed KPIs, below which the project company suffers reductions in its revenues and, in the extreme, loss of the rights to implement and operate the project. Most important, the tariffs payable to the project company must allow for a reasonable rate of return if the project company performs as promised. Getting the balance right can be an art rather than a science in challenging environments given that many surprises can occur. If it is not properly incentivised, even a committed project company and its shareholders could decide to cut their losses and withdraw from the project.

Another important way to ensure the project company and its shareholders are incentivised and committed over the longer term to the project, is to ensure they have their own money invested in the project with the prospect of getting it back only if the project succeeds. Even with the highest-quality controlling shareholder, governments and lenders require that shareholders have 'skin in the game' until the project has been sufficiently stabilised. This is usually until some period after the project has become operational and begun to generate revenues. This means that the project company and its shareholders should have little incentive to abandon the project and much to be gained by supporting it.

There are two main ways in which shareholders are required to have financial exposure in the PPP. First, lenders require that most or all of the shareholders' contributions are made in cash as a condition to the loans being disbursed. There can also be the requirement that the controlling shareholder guarantees its equity contributions or posts a letter of credit on its balance sheet, or that it has a transparent and reliable means of funding its contributions. Amounts the shareholders have spent to develop the project until the lenders make their loans are taken into account. Second, it is common that loan agreements prohibit dividends being paid before commercial operations have been reliably achieved. In addition, lenders typically require that the controlling shareholder agrees to retain ownership in the project company for that same period. Thereafter, they may restrict the controlling shareholder from transferring its shares or manipulating the capital of the project company to cause a change of control without the lenders' consent. In addition, the controlling shareholder may be required to post or commit contingent equity to manage certain cost overruns and delays in the project becoming operational. Contingent commitments by the controlling shareholders, and potentially by the lenders, may affect the economics of the project, but they are essential for weathering both temporary and longer-term hiccups in a project, which are more likely to arise in the focus countries. Governments also commonly include a requirement in the PPP contract that the controlling shareholder retains control for a specified period.

All these lender requirements are designed to mitigate the risk of the project company and controlling shareholders losing interest in the project, and to maximise their incentive to deliver and operate the project successfully. They would also stress the importance of having cash available for inevitable surprises. It is important to note that the government also indirectly benefits from these requirements of the lenders.

Other shareholders

The quality and credentials of other non-controlling shareholders are also important. These shareholders too need to demonstrate a commitment to the project's success and the long-term stability of the project. Particularly in the focus countries, where there is not an established record of PPPs or for those which are seeking to reignite the interest of private investors, a government may often require that it become a shareholder. Local investors may also be involved. And, because it is an untested or challenging environment, it may also be necessary to involve multiple investors for their financial and technical resources. A broad and diverse project company shareholding can be an asset to the project, but if it is not properly managed, it can be a liability.

Whatever the composition of the shareholder is, the level of experience of the shareholders in complex projects and shareholding arrangements is important. In addition, it is in the interest of all stakeholders that the governance arrangements among the shareholders are clearly set out: multiple shareholders could mean competing interests, which could present a range of risks during the lifetime of the project. There also needs to be an effective means of resolving commercial, legal and strategic disputes among the shareholders. This is to ensure that any disagreements among the shareholders will not delay or complicate the implementation or operation of the project, or add to its costs. This would be particularly unwelcome in focus countries, given the already tight economics of the project.

A discussion of issues related to the involvement of different types of project company shareholders that are common in the focus countries follows.

Government ownership

As discussed above, in some focus countries, governments require that they be included as shareholders of the project company. There are some advantages to government ownership of project company shares: first, the incentives of the government are aligned with those of the project company, because if it is successful, the government will be paid dividends; and second, the government can learn how to implement a complex infrastructure project. However, in cases where the government is a proposed shareholder there can be a perceived risk to the project company or the lenders. They might fear, that as a shareholder, the government will interfere with the work or judgment of the project company, or share confidential company information with the government as grantor of the PPP rights to the project company. These risks are usually mitigated in the shareholder arrangements. Restrictions may be placed on the government's shareholder voting rights and on its rights to share certain proprietary and confidential information with other parts of the government.

Another risk implicit in government ownership of project company shares is a commercial one which can indirectly affect the sustainability of the tariffs. Governments in some developing countries seek to be provided a shareholding in exchange for a contribution of assets or certain preliminary studies, instead of cash. In some cases, these contributions have real value and the contribution can be recognised in the form of a shareholding. In some cases, a government may request that the shares be provided to them free or for contributions of little objective value to the project at the stage it has reached. Increasing the shares of the project company directly translates into needing more cash to pay the additional shareholders, which in turn translates into higher tariffs – always a complex issue. Thus, the controlling shareholders, other shareholders and the lenders seek to determine the objective fair value of any proposed non-cash contributions. For example, it is common for the lenders and investors to require a formal independent appraisal of any land contributed or studies that are expected to be a full substitute for cash contributions.

Other investors

Local investors

Sometimes local shareholders are involved in a project or have obtained a licence to develop the project before the controlling shareholder is selected by the government. In some cases, local shareholders are brought on board by a controlling shareholder for their particular knowledge or insight that can be of value to the project. For example, they could be brought in for their knowledge about issues such as the local environment, permitting, land factors and community engagement. While they may not be able to make a full cash investment, they are given investor status and the expectation of a return. In some cases, the local shareholder is inexperienced or politically compromised or biased, which can make them something of a liability, and not an asset to the other PPP stakeholders. And sometimes local investors overestimate the value of their non-cash contributions and demand disproportionate levels of control over the project or rights to it. But if the right local investor is found, it can be a great help to the project's implementation. As with the inclusion of the government as a shareholder, the common way to maximise the contributions of local investors and to minimise disruption to the project company's operations is through a shareholders' agreement that addresses the contributions and specific details of the role of the local investor, and its voting and other rights.

Multiple investors

Often, larger, complex projects have multiple shareholders, several of whom may band together to form the controlling shareholding of the project company. This is especially the case in projects involving multiple infrastructure sectors, such as mining and power generation. But in the prevailing economic climate, even in less complex projects and especially those in focus countries, it has become more common for companies

and institutions to mobilise third-party capital for their projects. Having multiple shareholders can bring important financial and technical resources to the project company and the PPP. However, over the life of a PPP project, individual shareholders' strategies can shift or there can be differences of opinion as to what is in the best interests of the project and its shareholders. In projects with multiple shareholders, the best protection against the project company being impeded in its implementation of the project is that the members of the proposed shareholding consortium have developed similar projects together in similar environments successfully before. It is important for all PPP stakeholders to ensure that the contractual arrangements relating to the shareholders include clear provisions regarding each shareholder's contributions. This applies also to the governance of the project company. As discussed above, of particular importance is that there are clear provisions around the resolution of disputes among the shareholders and disputes involving the project company and third parties.

Types of risk

Commercial risks

Commercial risks as referred to in this publication are those risks that are within the direct or indirect control of the project company and that relate to what can go wrong during the development, construction and operation phases of an infrastructure PPP. To the extent that they are within the control of the private partner, they are generally borne by the private partner. In the case of a project financing structure, this will be the project company and, in some cases, its shareholders. The lenders bear these risks indirectly as they lend to the project company.

The main risks during the construction phase of an infrastructure PPP are cost overruns, delays in the delivery of the project and the project not meeting agreed specifications. The main risk during the operation phase relates to performance in accordance with the agreed KPIs.

Risks and risk mitigation measures during the development and construction phase

Both the public and private stakeholders in the PPP project are aligned in wanting to maximise the chances that the PPP project will meet their expectations, technically and commercially. The company and its shareholders may take a limited amount of financial risk during the development phase. This means that, if the project falls apart for any reason before financial close, they lose their money. However, all investors will cap their financial exposure at some level. In addition, many investors will require the government to reimburse their contributions if the project falls apart for a reason outside the investors' control.

During construction, however, the company and its shareholders take a great deal more financial and overall risk. As a result, the construction phase is the phase when all the parties begin to fully assume the risks allocated to them under the PPP contract.

During the construction phase, the company is contractually bound to meet all the obligations and performance specifications outlined in the PPP contract on an agreed timetable. Any failure to meet these obligations can pose a serious threat to the government's own apparent risk-taking in bringing in the private sector, for its financial and managerial resources and its technical expertise. It can also result in high political and budgetary costs if the government needs to start again. Infrastructure projects are physically complex to deliver and operate in any environment and especially difficult in the focus countries. Issues such as the weather, or transportation to the site, alone, can be enough to derail a project. It is therefore critical to decide in advance which party is best placed to maximise the chances of success. The government will have selected the project company based on its asserted expertise and resources and ability to deliver the project on time, within budget (so that the target tariffs to end-users can remain valid) and meeting agreed quality specifications.

Usually, therefore, it is the project company that bears all these types of risk under the PPP contract, and not the government. For example, the PPP contract may include bonuses to the project company for meeting or exceeding its obligations, and also penalties, such as liquidated damages or, in the extreme, termination of the project for failing to do so.

The project company usually retains one or more construction contractors and equipment suppliers to deliver on the company's commitments under the PPP contract. Depending on the complexity of the technology or service, it may also retain a specialist operating company or long-term services provider to operate and maintain the project once it has been completed.

The project company takes on the risk under the PPP contract if its contractor or operator fails to deliver as agreed. It is comfortable doing this because it will normally impose onto the contractor at least the same risks it assumes under the PPP contract. Operational commitments under the PPP contract are passed on by the project company to the operator under the operations and maintenance or services agreement.

Construction delays: if there are construction delays, the project will earn revenues later than expected. This could jeopardise the project company's ability to meet all its obligations. This includes not only the risks to the government mentioned above but also the company's debt obligations, which is of particular concern to the lenders. The company may additionally be obliged to pay delay-liquidated damages under the PPP contract to the government purchaser. The contractor is required, in turn, to compensate the project company in the form of equal or greater delay-liquidated damages, which the company can use to meet its obligations under the PPP contract. In the extreme, the government or government purchaser can terminate the concession and offtake arrangements if the delay is extensive, beyond an agreed so-called longstop date.

The company shifts this risk to the contractor in the form of a right of the project company to terminate the construction contract, with the contractor usually being required to pay damages up to the price of its contract. The project company will use these damages to satisfy its obligations under the PPP and other contractual arrangements and, importantly, to repay its debt as well as to repay equity and return on equity. (One of the successes of the Azito power project in Côte d'Ivoire was its excellent management of construction delays. See Chapter 6 for a full description of the project.)

Construction cost overruns: there are many reasons for a project's construction or implementation to run over budget that are within the control of the project company. For example, the project company can underestimate the cost of or time for a piece of equipment to be manufactured or delivered to the site. It can experience financial trouble or a key manager can leave the company. (These kinds of events could occur more in the focus countries, where the environment for doing business is likely to be more difficult and unpredictable.) But in each case, if there are cost overruns, the project company would ideally like to recover all these cost overruns through an adjustment to the payments it is to receive under the government purchase contract. However, this is not the case for cost overruns that could or should reasonably have been managed by the company.

Under a PPP concession or similar contract, the project company is generally required to assume the risk of there being construction cost overruns for the reasons described above: the project company was awarded the project based on its proven ability to meet key technical and financial criteria.

Therefore, the company controls the circumstances in which the contractor can ask for a change order for higher payments. The lenders review carefully the construction arrangements to be sure that there are few, if any, gaps between the PPP contract and the construction contract that would expose the debt to a risk of non-payment.

A deficient project: if, when the construction is completed, the construction contractor delivers, without excuse, a deficient project but one that meets minimum specifications, the project company is usually obligated to pay performance-liquidated damages to the government or government purchaser under the PPP or government purchase contract. This enables the government or government purchaser to look elsewhere for a replacement of the output or service. In turn, the project company will impose the same or slightly more onerous obligations on the contractor under the construction contracts. The deficient project may not have the ability over its lifetime to produce the anticipated revenues required to operate the project, repay the loans and provide a return of equity and returns on equity to investors. In this case, the project company typically also requires the contractor to pay it an amount that will allow the project company to prepay an amount of debt that the modified project revenues can support. This is sometimes called a buy-down payment.

If the project's quality or size is below agreed minimum thresholds, the government can reject and terminate the project. The project company, in turn, will impose on the contractor a requirement to pay an amount in damages equal to the amount that will repay the debt and honour the equity investors' anticipated returns. This usually means a reimbursement of the shareholders' equity contributions plus a return on equity, after the project company meets all its other obligations, such as employee salaries, taxes and demobilisation costs.

Types of construction projects and ways of managing risk

There are many types of construction arrangements for different PPP sectors. A favourite structure of lenders is the fixed price, turnkey contract. This is a contract in which the contractor guarantees delivery of the project, meeting all the required performance specifications, at a fixed price and by a fixed time. This type of arrangement is often preferred by lenders because it limits the risks of the project company under the PPP contract and allows the project company and the lenders to monitor the overall work of the general contractor and pursue only one company (the general contractor) if something goes wrong. The contractor may have subcontractors but the general contractor takes the risk of breach by the subcontractors that may expose the general contractor to liability under the turnkey contract.

A similar arrangement is one in which the general contractor may provide a 'wrap' of multiple contracts. Here, the contractor effectively takes responsibility for delivery at completion of a fully integrated and operational project and takes the risk of gaps in scopes of work among the multiple contracts. Examples might be civil works contracts, tunneling and equipment supply contracts.

The simplicity of the turnkey contract or wrap structure and requirement to pursue only a single contractor is especially sought in the focus countries. This is because the terrain and local suppliers and workers may be less known and less predictable, especially to international investors and lenders. However, the cost of a turnkey contract (or wrap) is often higher than a contract in which the contractor does not bear all risks of poor performance by multiple subcontractors resulting in cost overruns, performance deficiency and delays. These higher costs naturally feed into a higher tariff, because, usually, the shareholders, as commercial companies, are unwilling to earn lower returns to accommodate the higher construction costs. Selecting a contractor that has experience providing turnkey or wrap protection in the host country or similar countries is desirable.

Lenders' engineer: another important way for lenders to manage the risk of the project company (and its contractors) under the PPP contract is to hire a technical advisor. This is also an indirect protection for the government. The technical advisor is usually an internationally recognised engineering firm with relevant experience to help review the design, implementation, completion and operation of the project. The lenders' engineer is also often called the independent engineer, because its views are intended to be professional impartial views even though it is retained by the lenders and paid for by the project company. Even though the lenders' engineer owes its professional duty of care to the lenders, its oversight can in fact help all stakeholders avert problems. The lenders' engineer supports the lenders in collaborating with the project company and its owner's engineer, if there is one, as well as with the government and the government purchaser. The lenders' engineer is therefore a form of risk mitigation, as it will provide extra vigilance over technical aspects of the project.

The lenders' engineer is usually required to remain abreast of project developments and frequently to be at the project site to monitor the project's implementation, and, often the operation. This can help to diminish the potential for any delays in the delivery of the project, cost overruns and problems with meeting of the project's performance and reliability requirements. It can also function as a critical additional pair of antennae for any early warnings of these. This is especially critical in the focus countries and remote project sites that may otherwise be difficult to access.

The lenders' engineer also monitors and certifies performance and reliability tests. This is a key condition to the release of any completion support on the part of the controlling shareholder, and the relaxation of share retention obligations and restrictions on payment of dividends.

Sometimes, the lenders' engineer is also the engineer that certifies commercial operations under the PPP contract or government purchase contract. This is a critical milestone because it often triggers the commencement of the government purchaser's obligation to pay for the service or product.

Operating risks: risks and risk mitigation measures during the operational phase

The main risk during the operational phase of an infrastructure PPP project is that the operator's performance does not meet the requirements agreed in the PPP contract or government purchase agreement. As with the construction phase, if the PPP project is unable to meet the agreed performance criteria, the government may suffer a great deal of criticism. It may need to terminate the contract and possibly be tied up in dispute resolution proceedings. It may also have to spend money it did not expect to spend sourcing the PPP project products or services elsewhere.

For their part, lenders will want to ensure that the right incentives and disincentives for the project company to perform as promised are present, to maximise the revenues available to repay their debt. Common reasons for the project company failing to meet its performance obligations include: that the project company fails to adequately maintain the equipment; or it buys poor quality fuel that can damage equipment; or it fails to oversee the use of the infrastructure, which deteriorates as a result. This happens frequently in countries where the business environment is unfamiliar or difficult, because of the unpredictability of resources, possible managerial inexperience, or difficult living conditions for employees and managers. As a general matter, risk of the project company failing to meet its operating obligations for reasons within its control are borne by the project company, and indirectly by its shareholders and the lenders.

Performance: the government and government purchaser use the KPIs that should be achieved by the project company as the main way of ensuring that the project company is incentivised to perform as agreed. If the company does not perform to the specified parameters above minimum guaranteed levels or quality, it is common and best practice that the government or government purchaser is not obliged to pay the full price for the goods or services. The adjusted amount to be paid is calculated using a pre-agreed formula. In projects where KPIs are not considered sufficiently robust or protective, the company may also be required to pay liquidated damages to the government or government purchaser to cover any additional costs of purchasing the product or service elsewhere.

In the extreme, if the company fails to meet minimum performance indicators over some time, the government or government purchaser may have the right to terminate the PPP contract and purchase agreements. Reductions in PPP and purchase contract payments translate into lower revenues and threaten the company's ability to repay its debt and other obligations. In the extreme, persistent failure to meet agreed minimum KPIs creates a risk of termination or suspension of the PPP contract by the government or government purchaser. It is important that the controlling shareholder, the project company and the lenders are comfortable that the performance requirements and indicators can in fact be achieved. Some project companies have personnel within the company who can perform the requisite operations contemplated by the PPP contract. Often, however, the project company retains the services of a third party (or affiliated) operator or long-term service provider based on an operations and maintenance agreement.

When a third party carries out operations and maintenance: if the project company retains the services of a third party to perform operations and maintenance of the project, it will generally seek to pass on the same degree of operational risk it takes under the PPP contract to its operator or service providers. This will be covered in the operating and maintenance or services agreement. If the project company's operator does not perform as required and the project company is subject to penalties for that failure to meet its obligations, it will expect the operator or service provider to pay the same (or higher) penalties to the project company. The company will then use these funds to pay the required penalties to the government or government purchaser and to its other service providers and lenders.

Given the critical importance of operations, all parties have a shared interest in knowing that the project company or its third-party operator has the technical, managerial and financial ability to perform the PPP contract on behalf of the project company. In the focus countries particularly, it is ideal that the operator and its management team have experience in operating a similar project in the country or in similar environments.

Political and legal risk

Political and legal risks are another key area of risk in an infrastructure PPP. These risks are especially prevalent and concerning to investors and lenders in the focus countries. This could be because of perceived existing or potential instability, the lack of a tested legal regime, or the lack of a track record of successful private investment, or general economic volatility and lack of predictability.

Examples of political risk that are within the control of the government are that the government decides to cancel a project, that it changes the contract unilaterally, that it changes the law applicable to the project affecting its economics, or it or the government purchaser does not fulfil its contractual obligations. Other political risks are that the government nationalises or expropriates the assets of the PPP. And then, there is actual political or country risk which is not caused by and which cannot be controlled by the government, such as the risk of war or terrorist activity.

On the legal side, risks can relate to an inadequate or unreformed legal and regulatory framework. This would include the absence of an independent regulator or failure of the regulator to implement agreed tariff increases. Legal risks also include risks related to acquiring land and permits. Another risk factor could be inadequate structures and measures for dispute resolution.

Some more macroeconomic risks include the volatility of interest rates, inflation, availability of foreign currency, foreign exchange rates and the rights to repatriate foreign currency earnings, as well as the costs of taxes, all related to government policy but not completely under the control of the government.

Each of these risks affects or could affect the completion of construction or interrupt the project's operations or increase the costs of the project beyond original expectations. Some of these risks are within the direct control of government or a government purchaser. Some are not, but they are clearly not within the control of the project company. As a result, the private stakeholders in the PPP project will start from the assumption that, if one of the risks does interfere with the project, the government or government purchaser will nevertheless perform and pay for the product or service as though the interference or event had not occurred.

It is critical to the success of a PPP in the focus countries that these risks be identified and addressed directly to ensure clarity and predictability. The political risks within the control of the government and those that are not are discussed below in the part on political force majeure. Legal and macroeconomic risks create a great deal of unpredictability in the focus countries and are therefore a great concern to private sector investors and lenders. A way to manage these risks and the allocation of these risks among the parties has been developed and is the subject of the following sections.

Legal risks

The legal and regulatory environment: the legal and regulatory framework applicable to the PPP project is important to the stability of the PPP project and its contractual regime. The risks of failing to fully understand the framework, which relate to the law, regulations and permits necessary to undertake the project, are that the contracts can be invalidated or the project delayed or its costs driven up prohibitively. These risks are generally managed through the investors and lenders doing extensive due diligence on these matters, with the support of the government. In some cases, the government takes responsibility for the position with regard to these matters, for example, through representations or covenants in the PPP contract.

Thus, for example, lenders will want to know that the award of the project to the project company was in accordance with the concession and/or procurement laws and regulations and any PPP regime that exists. They will want to confirm that private participation in the public service or asset is lawful, that any sovereign support and any tax or other exemptions and preferential treatment were approved by the relevant ministries or Parliament or its equivalent, as relevant in the country. With respect to laws enacted in the renewable energy sectors (such as feed-in tariff programmes), they will want to understand the term of the programme and how it might be revoked. Lenders will also want to know whether regulation by contract (instead of the law) is possible and whether the contract can, if consistent with the law, override the specifics of the law.

In the focus countries, where the legal and regulatory regime for PPPs or, more broadly, private participation, is new or untested, this due diligence can be time-consuming and expensive and still not result in full clarity. Assuming the legal and regulatory regime is well understood and the PPP contract and government purchase agreement have been drafted to include an agreed allocation of risks among the parties (such as tax treatment, feed-in tariff on which the project company is relying to calculate its projected revenue stream), any changes in the regime (or its interpretation) is expected to be treated as a change of law, with the consequences described in the section below on force majeure.

Permitting: it is critical for the investors and controlling shareholders and the government and regulatory bodies to develop and maintain a productive and trusting working relationship in relation to the applications and granting of permits and consents.

Before finance is committed to a project, all governmental and regulatory permits, authorisations and licences need to have been obtained. In some focus countries, it can take a great deal of time and money for investors simply to identify all the permits and authorisations required for a project. In some countries, there is no clarity about what authorisations are necessary or what process needs to be followed to secure such authorisations. Despite careful due diligence and analysis, local lawyers and officials might not come to agreement on the requirements. In this case, the lenders and investors usually expect that the risk of an unexpected authorisation not being obtained or renewed without delay or additional expense will be borne by the government. They will not only seek to confirm that all the required or desirable permits have been obtained but that the right process has been followed. They will also need to know about any restrictions the consents contain, whether and how they can be renewed, and whether new restrictions or conditions could be imposed.

There needs to be clarity that permits required for the operational phase will be issued on time, and the project company meets all requirements in the permit being granted.

It is usually a requirement of lenders that the PPP contract provides that if the relevant government authorities fail to issue the required permits and consents, or impose unduly harsh or discriminatory conditions on issued permits and consents, these be treated as a political force majeure event. This is discussed below.

Land: the acquisition or leasing of the necessary land and rights of way for construction and operation of PPP projects can be an enormous challenge. Examples are wind projects that cover large tracts of land or roads that are routed through areas that are occupied. In many projects, government or a governmental entity cedes the land to the project, and the government may be asked to assure the project company and its lenders that all relevant land has been provided by financial close. In many cases, private land is included in the project site or is required for the transportation of necessary construction materials, resources or supplies.

Governments might have difficulty requiring private parties to ensure that these private land rights are transferred to the project. This applies to cases other than in approved compensated expropriation proceedings compliant with relevant laws.

Project companies and lenders often seek to have the government ultimately assume the obligation to ensure the transfer of public and required private land to the project company. However, in practice, parties often agree that the responsibility for the identification and acquisition of land or land rights is allocated to the party best positioned to handle these tasks. The costs and time elements of the tasks, as well as the risks associated with them, are factored into the commercial and force majeure terms, described below. This is because of the substantial delays or additional costs that failure to obtain access to the land and rights of way can present to the PPP project. In practice, in the focus countries in particular, land can be a highly sensitive political issue. It therefore must be carefully managed in accordance with all requisite laws, including environmental and social safeguards policies.

Lenders' security – legal and practical risks: in the project financing of a PPP, the lenders indirectly bear the risks allocated to the project company. If the project company fails to perform, the lenders' investment could be jeopardised. Therefore, the lenders expect to have enforceable, first-priority security over the project company's shares and assets. Security allows lenders to enforce the security and take over control of the project company or project assets if the project company breaches its obligations. This permits the lenders to rehabilitate and continue the project's operations or to dispose of the company, ideally as a going concern, with all fixed and moveable assets and contracts and authorisations. If necessary, the lenders can also dispose of assets individually. In each case, the lenders' goal is to maximise the chances that the project debt will be fully repaid.

Security also protects the secured lenders from actions by other creditors and third parties. Lenders typically seek to maximise the options available to them to recover the full amount of their debt if there is an enduring problem with the project's construction or operations. This is because they have limited control over the project's success and the price of their debt is not sized to bear all project risks.

Because of the centrality of the rights provided to the project company under the PPP contract and government purchase agreement, which provides for the revenue stream, these contracts or the payments under them are required to be assigned to the lenders. In addition, the lenders expect the government and government purchaser, and other third-party contractors to enter into an agreement directly with the lenders. This is to acknowledge the assignment and to give the lenders some time to step into the shoes of the project company to cure and rectify breaches by the project company to avoid a termination of these important contracts.[4]

The taking and enforcement by lenders of security over a company's shares and assets is relatively straightforward in many developed and developing countries. In the focus countries, however, they can be less certain or there can even be restrictions on the pledging or enforcement of certain types of security or expensive duties on the registration of security. And enforcement can be time-consuming and expensive in many focus country jurisdictions. (See the next page for the discussion on governing law and dispute resolution.) In addition, insolvency and bankruptcy laws may also restrict the enforceability of security rights, and the ownership, seizure and security over property. These uncertainties, restrictions, costs and difficulties create risks that the lenders seek to manage, in cooperation with the project company and government counterparties. If uncertainties remain or there is resistance to certain kinds of security, lenders may add a risk-premium.[5]

The lenders' security package typically covers the following categories of assets and rights:

- mortgage over land, leases and easements, buildings and other fixed assets
- assignment over the PPP contract, purchase agreement and other project contracts, permits and licences, together with direct agreements between lenders and contract counterparties
- assignment or pledge over all other project assets
- pledge over all project company bank accounts
- assignment over letters of credit, performance bonds, guarantees of project participants and assignment over receivables
- pledge over project company shares and shareholder loans and assignments of base and contingent equity
- assignment of insurance policies.

See Annexure 4 for more details on step-in rights.

Value of selling infrastructure assets at a remote site: stranded assets

nInfrastructure assets in developing countries – particularly in the publication's focus countries – can be difficult or even impossible to sell to a third party at a price that will recover investors' and lenders' investment costs and the originally anticipated returns. This is because they are fixed in place and often in remote locations, and cannot be sold for value in a piecemeal fashion. This is particularly true if the PPP contract or purchase agreement is terminated, reducing the value of the business as a whole. This makes it unlikely or impossible for the lenders to be certain to recover enough money on the sale of the project assets to repay their loans.

The concept of stranded assets is one of the main reasons that lenders ask that the government purchases the project at a price that is at least equal to the debt, even in the case in which the project fails because of project company breach under the PPP concession contract or purchase agreement. (See the risk table on force majeure.)

Governing law and dispute resolution: it is in the interest of all parties to be able to rely on a common interpretation and the enforceability of the commercial terms of the PPP contract and government purchase agreement as each is negotiated and agreed. The choice of the contract's governing law and the dispute resolution mechanisms is critical. In PPP projects involving private international parties, the lack of a visible track record of contracts being enforced in the country and protecting the rights and remedies of the investors and lenders can be a large concern. This is a particular concern in the focus countries. Of greater concern still are examples of judicial decisions or arbitral awards that may seem unfairly to favour the government or local parties. So even if the project company is organised in the host country, the project company and its international shareholders and lenders usually prefer and sometimes require that the governing law of the PPP contract and the government purchase agreement be a body of law of a country that has a developed history of private sector commercial contracting, investment and financing. While the designation of a foreign governing law may be restricted by local law, governments may be inclined to seek to change the law. They may want to do this so that this international best practice standard can help international investors and lenders become comfortable, and to avoid uncertainties in the interpretation and enforcement of contractual clauses, and facilitate contract administration.

Without this comfort, investors may, as discussed above, impose a risk premium to the proposed tariff to be paid by the government purchaser. Often, the governing laws preferred by international lenders are those of England and Wales or New York. If another governing law is required by law or strongly preferred by one of the parties, the investors and lenders will undertake a thorough analysis of the interpretation of the PPP contract and purchase agreement provisions. An example of this could be the government preferring local law to govern the PPP contract or local law requiring contracts involving the government and a domestic party to be governed by local law. Some contractual clauses are of particular interest to private stakeholders. These could include provisions relating to damages; termination compensation; dispute resolution clauses, including the process for enforcing the choice of law; and, waivers of sovereign immunity. This can be a time-consuming and lengthy process but it is achievable, especially where the local law is broadly based on another internationally familiar body of law, which is occasionally the case in the focus countries.

Regarding dispute resolution clauses, there are many judicial and arbitral systems and procedures in developing countries around the world that are well established or are being successfully reformed. They can be relied upon to interpret the PPP contractual clauses fairly and based on experience, and to render objective decisions that neither favour one party nor another. However, investors and lenders are usually unwilling to take the risk of the selected judicial or arbitral forum having no, or a limited track record of enforcing international privately financed commercial contracts like the PPP contract or the government purchase agreement.

International arbitration

Investors and lenders typically prefer to rely on international arbitral tribunals, rather than foreign (and local) courts to interpret and to render an enforcement decision with respect to the PPP contracts. This is because of the complexity and number of inter-related PPP project contractual arrangements and the existence of parties from and assets in multiple jurisdictions. Also, there could be concerns about frequent judicial backlogs and the possibility that local courts or arbitral institutions or arbitrators may inherently be biased against private international parties.

In addition, it is usually easier to enforce an arbitral award abroad than a judicial judgment because arbitration agreements must be recognised and enforced under the United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards (the New York Convention), which has been ratified by close to 150 countries.[6]

International arbitration can be institutional or ad hoc. Institutional arbitration is arbitration administered by a standing arbitration institution, which charges an administrative fee for its services. There is no need to hold the arbitration hearings at the city of the arbitral institution's headquarters.

The major arbitral institutions for international commercial arbitration are the ICC,[7] the London Court of International Arbitration (LCIA),[8] the International Centre for Dispute Resolution (ICDR),[9] and the Permanent Court of Arbitration (PCA).[10]

The International Centre for Settlement of Investment Disputes (ICSID) was created under the 1965 Convention on the Settlement of Investment Disputes between States and Nationals of other States (which was formulated by the IBRD) to administer disputes between sovereign states and foreign investors regarding foreign direct investments. Under the Convention, the jurisdiction of the ICSID is limited to disputes relating to an investment between a contracting state and a national of another contracting state.

There also exist some established regional institutions, which may provide alternatives to these leading global institutions.

In ad hoc arbitration, there is no institution or body which administers the arbitral proceedings. The appointment of the arbitral tribunal is handled entirely by the parties (possibly with the help of an appointing authority, see below), and the remainder of the proceedings is handled entirely by the parties and the arbitral tribunal. Parties selecting ad hoc arbitration often use the arbitration rules issued by the United Nations Commission on International Trade Law (UNCITRAL Rules) because of their extensive record of application and the many published decisions and other materials that are available to help interpret the provisions of the UNCITRAL Rules. The administrative burden on the parties can be considerable and so is not usually the first choice for international arbitration.

The seat of arbitration is the juridical home of the arbitration and is usually, but not necessarily, the place where the arbitral hearings must take place. Because the law and courts of the seat of the arbitration provide the legal framework surrounding the arbitration, choosing an appropriate seat of arbitration is a crucial decision, as well as specifying that hearings may be held in other jurisdictions that may be more cost-effective and convenient to the parties.

Provisions for use of alternative dispute resolution and the use of dispute review boards can be useful.[11]

Integrity: most reputable, international lenders, including DFIs, that are active in emerging markets are held to a high standard of integrity in their dealings around the world. While many institutions have know-your-customer requirements, many also have systemic integrity due diligence processes. These are designed to identify throughout the life of the project politically prominent persons, as well as any of the project stakeholders that may be associated directly or indirectly with fraud, corruption, bribery and terrorism in the award of the project or its implementation and operation. In the case of projects to be financed or supported by the WBG, certain entities can be debarred and the entity can no longer be involved in the project or other projects being financed or supported by the WBG.[12] Many other DFIs respect and follow the debarment conclusions of the WBG. Integrity due diligence applies not only to the project company and its controlling shareholder but also to the other shareholders, contractors, other project participants and to their affiliates and subsidiaries involved in the project. Individuals (often local citizens) who may be involved in the project must also not be politically exposed persons. Many companies have their own lists of sanctions and prohibitions on share ownership. Lending to a project that passes muster from the perspective of integrity avoids embarrassment and reputational risk. It also maximises the chances that the project will not be derailed or tied up in litigation or discourage other private stakeholders from engaging in the country. It is not uncommon in focus countries for prominent local business executives to enter government, and vice versa. As a result, the identity and integrity of all people involved in the shareholding of the project company and its contractors are routinely and scrupulously vetted.

Environmental and social risks

Many investors and lenders, particularly DFIs, are committed to transparency around their projects. They evaluate the environmental and social impact of the construction and operation of PPP projects. Development finance institutions and EXIMs are among the lending institutions with the most detailed environmental and social policies and practices. This position translates into a requirement that the controlling shareholder and project company must comply with the relevant environmental and social safeguards and performance standards of the institution.

The risks of failure to comply with stringent environmental and social safeguards are many and varied. For example, failure to ensure full and transparent disclosure and to address local community concerns on a continuing basis and adverse effects on the flora or fauna can later delay the project or increase its costs and, in the extreme, render it unworkable. In addition, failure to attend to these important aspects of the project can turn into a public relations nightmare. Finally, it is simply the right thing to do. Environmental and social issues are particularly sensitive and important in the focus countries because of the possible power imbalances between the investors and lenders on the one hand, and the local community, on the other.

In general, environmental and social risks are allocated to the project company. This means the project company may not be permitted extensions of time for failure to comply with its environmental and social obligations; or it may not be entitled to an increase in tariffs beyond what was originally agreed.

Compliance with the relevant social and environmental criteria means that the project company must prepare a detailed environmental and social impact assessment in form and substance. This needs to be acceptable to the government and government purchaser. There needs to be agreement on a plan for compliance with the lenders' and government's environmental and social safeguard policies and procedures. The project company must also commit to complying with the relevant environmental and social standards and to have systems in place to ensure compliance. (One of the strengths of the Dakar-Diamniadio Toll Road project in Senegal was the full compliance with the environmental and social standards. See Chapter 6 for a full description of the project.)

For a discussion on one DFI's environmental and social safeguards policies and procedures, see Annexure 5.

Other risks that can threaten the success of a PPP

Foreign currency and exchange risk

In many projects, including PPP projects relating to public services or products being provided to consumers, consumers buy the products or services in local currency, directly or through an intermediary or government entity. In some countries, local currency financing may be available and local suppliers or equipment and services may be used to match the currency of the revenues produced. However, local currency loans are often expensive or only available in tenors that are shorter than the life of the PPP asset or service being delivered.

In any event, in larger PPPs, construction or operating costs (such as equipment, or services) may be denominated in hard convertible currencies. Larger PPP projects in the focus countries are often financed by lenders that may be unable to provide local currency financing. This mismatch between the local currency revenues and the hard currency construction or operating services and financing creates a risk for the project company. As is often the case, this is if the project company's only customers are domestic consumers, because the company will need to sell its local currency-generated revenues to buy dollars or other hard currency to repay its loans and offshore expenses. The availability of foreign exchange may not exist consistently or in sufficient quantities, or the exchange rate can fluctuate and have a negative financial impact on the company in the form of additional unanticipated costs. In addition, in some countries, an additional risk exists because there are often foreign currency restrictions or onerous procedures imposed by the central bank. It is the bank's duty to regulate the limited foreign exchange available in the country to make it available for general commerce and for high or higher priority projects of the government. This practical impediment can exist even if in theory or in law, the company may be permitted to convert and repatriate its hard currency abroad to pay offshore costs, repay its loans to its lenders and pay dividends to its shareholders. The parties need to fully understand how the availability, convertibility and repatriation of foreign currency will work in order to be comfortable that this will not present delays or unanticipated costs that could jeopardise the company's repaying of its loans on time and in the currency of the loans.

In order to manage these related foreign currency risks and the risk of devaluation, the government purchase agreement usually specifies that the tariff is denominated and payable in US dollars or euros (or another convertible currency). Or it could specify that the tariff is linked or 'pegged' to a specified convertible currency so that the foreign exchange risks are borne by the government purchaser. In addition, the PPP contract or government purchase agreement may require the government or central bank, to the extent permitted by law, to undertake contractually to make foreign currency available at certain rates or to compensate for exchange rate fluctuations. It may also be required to permit the unfettered conversion of local currency into hard currency and to transfer hard currencies offshore. Any changes to the law or treatment would be treated as changes in law, a risk usually allocated to the government or the end-users.

The government is also required to acknowledge and consent to convertible currency accounts being held onshore and offshore. Many financial institutions have currency hedging and other financial products that can help manage foreign currency risks.[13]

Taxes, inflation and interest rates

Taxes, inflation and interest rates can present commercial risks because of their uncertainty and volatility especially in the focus countries. Increases in taxes or unexpectedly high inflation or interest rates can add huge expense to a project and its operating costs. If not properly managed, this could make the project unsustainable financially. These risks are managed in two ways. First, investors and lenders typically do due diligence on the taxes and duties that would apply to the various phases of the project and its investors and seek to negotiate a commercial understanding with the government about the tax treatment of the project. Second, the parties normally agree that any changes to the government undertakings with regard to the tax treatment are treated as a change of law as described below. And the parties usually agree to a formula for how inflation and interest rates will feed into or be passed along into the tariff to be paid by the government purchaser.

Taxation and duties and tax exemptions: taxes and duties on imports of goods and services and on revenues can be substantial costs of PPP operations and are carefully modelled by investors and lenders. To keep tariffs lower than they would have been and to provide an incentive to controlling shareholders by accelerating returns to them, PPPs are sometimes provided income tax exemptions or exonerations for a specified number of years.

There are also often import duty exemptions or special treatment with respect to expatriate staff and there can be other accommodations as well. These types of protection are usually built into the concession as commitments of the government with the right to pass along to the consumers through the tariff any taxes and duties that are payable. This can include the right of the company to pass through any taxes or duties that result from changes in law or regulation into the tariff that the company can charge.

In effect, the project company pays for all other applicable taxes as a cost of doing business (just as other private companies do); the government bears the risk of exemptions; and, consumers bear the risk of the government's changes to tax treatment. Tax exemptions can be controversial, though, from the perspective of the government (and its advisors) and DFIs because of the implicit cost to the country of not receiving tax revenues that would otherwise be payable and to the ultimate consumers. But in marginal projects, tax exemptions may make the difference between a project being financially viable or not.

Inflation rates: over the long term of a PPP concession, inflation will occur and could affect the cost of construction and operations. It is common for investors and lenders to require that the government purchase agreement contains adjustments to the tariff for inflation. Sometimes, however, depending on the country or sector, investors and lenders may be willing to bear some or all of the risk, and include projections about inflation in their financial models. In many cases, governments will pay separately for inputs to the project whose costs are likely to fluctuate to a great extent to insulate the project from fluctuations outside its control (such as fuel) or to benefit from any decreases in these costs.

Interest rates: a substantial part of the capitalised cost of a PPP project as well as its working capital requirements will consist of interest expense, including additional interest during construction if there are unexpected delays or cost overruns. It is therefore important to understand and have realistic assumptions about interest rates or methods to hedge interest rates. The cost of financing a PPP is built into the tariff as a general matter. Any change in such treatment is treated as a change of law and passed through into the tariff, effectively shifting the risk of the additional cost to the government or government purchaser and thereby to the end-users.

Force majeure

As a general matter, over the term of a PPP project, many events beyond the control of one or more of the parties can affect the cost and timing of construction or the operations of the project and therefore the ability of the project to meet its financial obligations. While the list of events characterised as natural and political force majeure has become quite generic, its application in the focus countries requires careful tailoring. This needs to be done based on the physical environment and country context and particularly the experience of any of the listed events having occurred in the country. Insurance specialists are critical in helping to refine the analysis of these risks in the particular situation of each project.

The importance of agreement about what constitutes force majeure events

All the stakeholders have an interest in clarity around the scope of these events and the consequences of these occurrences with four specific goals:

- to ensure that the affected party is not in default under the PPP contract if it is unable to fully perform
- to ensure that the affected party is given appropriate extensions of time to perform
- to ensure that there is an alternative source of funds
- to ensure that the affected party has the right to terminate the PPP if the event lasts for an extended period.

Force majeure is generally defined as 'an event or circumstance beyond the reasonable control of a party which (or the effects of which) affects performance by a party of its obligations'.[14]

Force majeure events, in practice, can invalidate or make impossible performance, or simply delay or add costs to the performance by the affected party. Each of these aspects of force majeure and the consequences are negotiated by the parties. Almost always, they relieve the affected party from liability for breach of the affected performance obligations caused by the force majeure event and provide an extension of time for performance. The extent to which the affected party is entitled to continuing performance and payment by the unaffected party depends on the agreed risk allocation and availability of insurance, generally speaking.[15]

Difficulties in meeting completion and in operating up to performance targets and timetables as a result of natural incidents beyond the parties' control fall into the category of natural force majeure. They can largely be quantified and managed by a company through its careful design and management of the equipment and project assets and especially through the acquisition of comprehensive insurance for third-party liability and casualty caused by the event plus actual or anticipated lost revenues.

Natural force majeure

The definition typically includes some variation of the following events. They need to be tailored as appropriate to the project sector, country, project site, among other things, and subject to the availability and affordability of insurance to cover the occurrence and effects of such events. These include:

- an act of God, lightning, fire, earthquake, volcanic activity, flood, storm, cyclone, typhoon, tornado or other natural calamity
- radioactive contamination or ionising radiation
- strikes, go-slows or work to rule actions involving only the workforce of the affected party, its contractors, its sub-contractors or suppliers
- explosions or chemical contamination
- a natural force majeure event under any other project document affecting the affected party or its counterparties
- sometimes, depending on the circumstances, political force majeure events occurring outside the host country.

As the cost of insurance is expected to be included in the project costs that feed into the tariff, not only availability, but the price of available insurance is important. For example, in some countries that have seasonal flooding or monsoons, it may not be possible to obtain insurance to cover these events or the insurance may be so expensive that it would render the tariff unaffordable.

Investors, project companies and lenders expect that the company will be relieved of (not in breach of) obligations to perform in a timely fashion in the case of all force majeure events. This treatment is consistent with commercial contracts generally between two private sector parties. In the context of a PPP, because of the assumed availability of affordable insurance to cover the effects of natural force majeure events, the parties are generally willing to agree that governments and government purchasers are only responsible for paying for the services and products that the operator actually delivers notwithstanding the occurrence of the event. In the case of catastrophic and prolonged natural force majeure (the period being subject to negotiation but typically something like 360 days), either party may terminate the contract. The company, in this case, relies on insurance to cover the costs of demobilisation and to pay all outstanding costs to contractors and service providers and to lenders and, usually, payment of dividends to shareholders.

Political force majeure

As PPP contracts involve a government party and a private party, political force majeure events are included in a separate category of risks. This is because the private sector parties are unable to control or effectively manage them. And it can be impossible or prohibitively expensive to buy commercial insurance for some or all of these events, depending on the circumstances. Availability of insurance covering any of these events could influence how these risks are allocated, with the insurance costs needing to be added to the project costs and passed through to the tariff.

Political force majeure events typically include any of the following force majeure events (as defined above) occurring in or directly affecting or involving the host country in which the project is located:

- any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, civil commotion or terrorism
- any act of sabotage against the project that is not carried out by an employee, contractor, or agent of project operator or an employee, contractor, or agent of any of operator's contractors, affiliates or the controlling shareholders (unless the act constitutes another political force majeure event)
- strikes, go-slows or work to rule actions which are widespread or nationwide, of a political nature but excluding any such matters involving only the workforce of the affected party, its contractors, its sub-contractors or suppliers
- epidemics or plague
- the discovery of archeological or paleontological remains at the project site
- radioactive contamination or ionising radiation originating from a source inside the country in which the project is located to the extent it exceeds applicable standards
- any change in law or change in tax
- the occurrence of an event that is analogous with a political force majeure event under any project document affecting the affected party or its contractors
- a lack of or constraint in the availability of any public services or supplies or access required for the construction or operation of the project (for example, fuel, grid, access road, interconnection)
- a lapse of authorisation/consent (including renewal when properly applied for)
- a natural force majeure event affecting the government purchaser or other government parties or their assets that are critical to the project
- sometimes, any other event of a similar nature to those described above.

Typically, on occurrence of these risks affecting the project, the government purchaser or government is required under the PPP contract or the government purchase agreement to 'keep the project company whole' through deemed performance payments. This is typically in the amount that would have been earned had the event not occurred and affected the company's construction completion or operations. This is because of the private sector's lack of control over these events and/or the cost of managing these risks (for example, through PRI) if these costs cannot effectively be woven into the tariffs to yield the expected returns. If the political force majeure event lasts a long time (again, something like 360 days), the company has a right to terminate the contract and usually expects the government or government purchaser to buy the project. This will be at a price that will ensure that the project company receives the benefit of its original bargain. It will probably be the greater of fair market value of the project before the event or the price equal to all costs owing by the project company to third parties, the amount of the debt and the capital and return on capital

that the company would have earned had it been able to operate the project through its expected life. (This can sometimes come with a small discount.)

In some cases, parties may agree to sub-divide political force majeure events into categories of events that the government or government purchaser can control (material adverse government actions or MAGA) and those events it cannot.

For example, it is assumed that governments can control whether they expropriate, change the law, breach or repudiate the contract, issue permits, complete necessary public work or deliver public land but they cannot control the occurrence of war, sabotage or terrorism. In the right circumstances, the project company and its lenders may be prepared to 'share' some of the risks of the events (shared risk events) that the government or government purchaser cannot control. For example, the government may be obliged only to compensate the debt and return of equity on termination. But it would not be required to compensate the return on equity, or some variation of this, if certain events outside the control of the government, such as war, sabotage or terrorism occurred. Private parties often build in a risk premium or contingency to account for the additional risk they are taking and this will result in a higher tariff.

It is important for the parties to understand the implications of the proposed sharing of political force majeure events not constituting MAGA for the bankability of the project from the perspective of experienced long-term lenders who are committed to supporting the project. More generally, deviations from the standard and expected allocation of natural and political force majeure events are possible. However, this can be particularly risky in the focus countries. In politically stable countries or countries where there are attractive commercial or investment opportunities for investors and lenders other than the PPP project and a commitment to the sector, governments may have more leverage to negotiate more sharing of those political risks that are beyond the control of the government. In the focus countries, it may be possible to mobilise PRI to cover the shared risks being shifted to the private investors and lenders to help them agree to the sharing. In all the projects covered in the case studies (see Chapter 6), there was robust protection against the risks that were outside the control of the private sector parties, including for the consequences of political force majeure events. The Azito project in Côte d'Ivoire stands out for its excellent arrangements for PRI.

Changes of law

If there is any change of law or regulation (or in the interpretation of a law or regulation) or new permitting requirements affecting the costs or timing of the PPP's construction or operation, the company is typically permitted an agreed period of extra time to perform. The additional costs resulting from the change of law are permitted to be passed through to the end-users, assuming the company can raise the financing to effect the required changes to the project construction. Changes of law invalidating contracts or not permitted to be passed through to end-users in the form of a tariff adjustment typically entitle the project company to terminate the PPP contract with the same termination compensation that is payable after other prolonged political force majeure events. In civil law jurisdictions, sometimes instead of including a formula for the changes to the tariff resulting from the change of law, a general clause is included. The clause effectively says that the project company may terminate the PPP contract if the parties cannot agree on the compensation to be paid to the company by the government or the end-users in the form of an increased tariff, and which therefore changes the 'economic equilibrium' of the contract, including the returns to the shareholders.

Risks occurring in other countries

Many of the factors discussed above are relevant not only to the country in which the project will reside but any other countries that will be involved in the project. For example, if equipment or supplies are being sourced in a second country, and that second country suffers an earthquake or imposes an embargo on the project country, the project can be delayed or incur additional costs. Events such as marine hazards or those occurring on inter-country rail must also be considered.

Standard risk allocation

Below is an overview of the types of protection that project companies and lenders in the focus countries expect to have in place to manage the types of event that might impede or alter the costs or timetable for the construction or operation of the project. This means anything that could jeopardise the servicing of their debt and for experienced international investors, the anticipated return on their investment. This is particularly relevant in countries with a limited track record in attracting private investment. On any particular project, there may be deviations. However, if there is a deviation, it will take some time for the project company and the lenders to become comfortable and understand what the alternatives are to protecting their debt repayment, and for the investors to recoup their investments.

Overview of standard risk allocation

This table shows how force majeure risk and events of default are typically allocated in the focus countries.

1 Event	2 Relief from obligations	3 Compensation payments	4 Right to terminate	5 Buyout/ termination payment	6 Comment
Government purchaser default	The project company is relieved of its obligations to the extent that it is unable to perform as a result of the purchaser default	The government purchaser must continue to make full payments to the project company between default and termination. Payments must be made in the amount that would have been payable had there been no breach and the project company had otherwise been able fully to perform	The company has the right to terminate if the breach persists for an agreed period	If the project company terminates, government has the obligation to buy the project at a price that fully covers the debt, equity and forecast return on equity (ROE)	Critical analysis of the precise obligations of the government and the government purchaser is necessary The definition and calculation of the debt, equity and ROE is negotiated and included in the PPP contract
Project company default	The government purchaser is relieved of its obligations to perform to the extent that the project company's breach affects it	The government purchaser continues to make payments to the project company between the event and termination for everything the project company actually delivers or performs	The government purchaser has the right to terminate if the breach persists for an agreed period	If the government purchaser terminates, it always has the option to buy the asset and, in some projects, may have the obligation to do so. The price is usually at least in the amount of the debt (but sometimes with a modest discount)	Critical analysis of the precise obligations of the project company (and indirectly its contractors) is necessary

Overview of standard risk allocation (continued)

1 Event	2 Relief from obligations	3 Compensation payments	4 Right to terminate	5 Buyout/ termination payment	6 Comment
Political force majeure affecting the project company	The project company is relieved of its obligations to perform to the extent that it is unable to perform as a result of political force majeure	The government purchaser or government has the obligation to continue to make payments between the event and any termination. This is usually in the amount that would have been payable had the event not occurred and the project company had been able fully to perform. (See the discussion on shared risks for non-material adverse government action (MAGA) political force majeure events.)	The project company has the right to terminate if the event continues for a pre-agreed extended period	If the project company terminates, the government or the government purchaser has the obligation to purchase the asset upon termination by the project company. This is usually in the amount of the debt, equity plus the ROE. (See the discussion on shared risks for non-MAGA political force majeure events.)	See discussion on political force majeure events and MAGA
Political force majeure affecting the government purchaser	The project company is relieved of the obligation to perform to the extent the political force majeure affects its ability to perform	The government purchaser is obliged to continue to make payments between the event and termination. This is usually in amount that would have been payable had there been no event and the project company had otherwise been able fully to perform	The project company has the right, and sometimes the government purchaser (not necessarily the government) has the right to terminate after the event has continued for a pre-agreed period	If any party terminates, the government has the obligation to purchase the project in the amount of the debt, equity and the ROE (See the discussion on shared risks for non-MAGA political force majeure events.)	The government purchaser may be relieved of the obligation to perform to the extent it is affected by some (but not all) political force majeure events. The PPP contract often includes detailed provisions about the project company's possible reconstruction (and financing thereof) of assets affected by the political force majeure. If it is not possible, the project company's right to terminate applies

Overview of standard risk allocation (continued)

1 Event	2 Relief from obligations	2 Relief from obligations	4 Right to terminate	5 Buyout/ termination payment	6 Comment
All other (natural) force majeure events affecting the project company	The project company is relieved of its obligations to perform to the extent the natural force majeure affects it	The government purchaser has the obligation to make payments for what has actually been produced or delivered. The project company relies on insurance proceeds for the lost costs or revenues	The project company and sometimes the government purchaser may terminate after an extended period	If there is a termination, the government usually has an option to buy the asset on termination, not the obligation	An agreement to rebuild within limitations is imposed by lenders
All other (natural) force majeure events affecting the government purchaser	Both parties are relieved of their obligations to perform to the extent of their inability to perform by the event	The government purchaser must continue to make payments between the event and termination. This is usually in the amount that would have been payable had there been no event and the project company had otherwise been able fully to perform	The project company and sometimes the government purchaser has the right to terminate after an extended period	If a party terminates, the government has the obligation to purchase the project usually in the amount equal to the debt, equity and the ROE (with reductions for any insurance proceeds received by the project company/lenders)	The availability of the project company insurance to cover risks of harm to the government purchaser's assets is limited and expensive
Change of law invalidating contracts or making it prohibitive to complete or operate	The project company is fully relieved of its obligation to perform	If it is still possible to construct or operate cost-effectively, this usually leads to ability of the project company to adjust the tariff	Only the project company has the right to terminate if the change of law invalidates the PPP or an adjustment to the tariff is not possible	Government has the obligation to purchase the project in the amount equal to the debt, equity and the ROE	
Change of law increasing the construction or operating costs	If the project company is unable to cost-effectively finance the increased costs or pass through increased costs to the tariff, it is relieved of the obligation to perform		Only the project company has the right to terminate if the change of law cannot be passed through to the tariff	Government has the obligation to purchase the project in the amount equal to the debt, equity and the ROE	

Multiple infrastructure PPPs: standardisation and replicability

More and more countries are running multiple infrastructure PPPs projects in the same sector, with different private partners and other stakeholders involved. Multiple projects running in parallel can be effective in rationalising resources and streamlining processes, such as using common advisors and standardising project documents. Importantly, risk allocation can be standardised and coordinated. (See, for example, the Seven Sisters renewable energy projects in Jordan (Chapter 6)). If the risk allocation is right and governments are able to make it attractive and comforting to the private sector, this can be a major incentive for the private sector to get involved in other projects in the country.

From this discussion, it should be clear that risk and the sustained management of risk are key ingredients to a successful PPP. In this publication's focus countries, it is especially important for governments to work out how best to attract and build the confidence of private stakeholders and, in particular, weigh up the tradeoffs of allocating non-commercial risks to the project company and its lenders. This includes the risks that may not be in the control of the government. Conversely, if the private sector partners are eager to invest in a particular country or project, they must decide how much risk they are willing to assume and at what cost. They must also consider whether lenders will consider the project bankable if there are too many residual risks to be borne by the project company and indirectly by the lenders.

Governments that decide that they can and should fully bear all government risks and even partial risk for certain commercial risks of the project may be able to arrange back-up support for these risks from other institutions. Development finance institutions play a very important role here. As part of their commitment to see PPPs effectively addressing the acute infrastructure backlog, they and other financial institutions are prepared to provide partial and sometimes full cover for risks that more mainstream lenders might choose to avoid. This is in addition to other interventions to facilitate the successful functioning of the PPP, such as providing funds to reduce capital costs and supplement tariffs.

Endnotes

1. All the focus countries are developing countries. Some are lower-income developing countries; some are FCSs; and some are simply developing countries that have not yet been able to attract private investment on a sustained basis, even though they are not on the lower income or FCS scale.
2. 'Put simply, a PPP project is considered bankable if lenders are willing to finance it.' http://www.eib.org/epec/g2g/i-project-identification/12/123/index.htm
3. See Timothy C Irwin's book: Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects. (The World Bank, 2007.)
4. In the civil law context, assignments of contract are not generally possible because there is not a precise analogue to assignments by way of security. This is in contrast to assignments that result in the formal transfer of the contract to a new party. However, there are ways to achieve more or less the same protection. Lenders to PPP projects in civil law countries, (for example, francophone Africa) generally require direct contractual assurances from the project contract counterparties. In some countries, one can only have an assignment of receivables or the termination compensation, for example, or a delegation of payment from the payee to the lenders. There is a great deal of experience and precedent in civil law contexts for private lenders achieving comparable protection to the protections described here.
5. The ability and means by which security over project assets may be taken is governed or heavily influenced by the local laws to the extent that local law and local hard assets are to be taken. Enforcing some of these liens in local courts where most security rights are enforced takes time, is expensive, and there is often a lack of certainty about the outcome. This is why international lenders to PPPs in relatively untested developing markets typically require that there be both an onshore and an offshore security agreement, governed by local and international law, respectively – a kind of 'belts and braces' approach.
6. If the country where the project is located is not a party to the New York Convention, the parties review (with experienced local counsel) whether foreign arbitral awards can be enforced through other means, such as a bilateral treaty, and the process for doing so.
7. The ICC (www.iccwbo.org). The ICC, based in Paris France, administers arbitration proceedings through its International Court of Arbitration, which was established in 1923.
8. The LCIA (www.lcia.org). Based in London, England, the LCIA is globally recognised and its arbitration rules are used throughout the world. The LCIA Arbitration Court was established in 1985. The LCIA is an administrative body rather than a 'court' and cases at the LCIA are presided over and decided by a sole arbitrator or a three-member arbitral tribunal.
9. The ICDR (https://icdr.org). Based in New York, US, the ICDR is a specialised division of the American Arbitration Association, responsible for the organisation's international arbitrations. The ICDR administers international arbitration proceedings under its international arbitration rules.
10. The PCA (https://pca-cpa.org) is based in The Hague, The Netherlands. The PCA is an intergovernmental organisation that was established by treaty in 1899. The PCA has developed a set of arbitral rules designed to govern arbitration between international organisations and private parties. These rules are based on the UNCITRAL Rules (described below) and, thus, arbitration under these rules is not fully administered (although the PCA can provide administrative services and support).
11. See Patricia O Sulser and Cyril Chern: Keeping Public-Private Partnership Infrastructure Projects on Track: The Power of Multi-stakeholder Partnering Committees and Dispute Boards in Emerging-Market Infrastructure Projects, World Bank Legal Review, Volume 5 (2014) http://documents.worldbank.org/curated/en/765121468337289669/pdf/825580PUB0WBLe00Box379868B00PUBLIC0.pdf
12. http://www.worldbank.org/debarr
13. See, for example, https://ida.worldbank.org/financing/local-currency-facility-lcf and GuarantCo http://www.guarantco.com
14. http://ppp.worldbank.org/public-private-partnership/library/guidance-on-ppp-contractual-provisions-2017-edition
15. Force majeure differs from 'hardship' clauses common in civil law countries, which describe the circumstances in which performance by a party becomes more onerous but not impossible, and the consequences thereof.

CHAPTER 6

Four case studies of successfully completed infrastructure PPPs

The following four case studies were selected because they are all successful PPP projects. Their particular relevance to this publication is that they reflect some of the features that are critical to the success of a PPP in the most challenging environments.

Tajikistan

The Pamir Energy Project

The context

Tajikistan is a mountainous country of the former Soviet Union. It shares borders with Afghanistan, China, Kyrgyzstan and Uzbekistan and has a population of about 8.7 million people.

Following the collapse of the Soviet Union in 1991 and a five-year civil war, between 1992 and 1997, Tajikistan was a devastated country. Many lives were either lost or displaced, and social and economic infrastructure badly disrupted. Unreliable electricity supply was one of these casualties: schools, hospitals, and businesses were frequently forced to close, especially during the winters. This was clearly a massive obstruction to much-needed development and reconstruction.

Among the most affected areas was the Gorno-Badakhshan autonomous region, in the eastern part of the country, located in the Pamir mountains. Many of the region's 220,000 residents had resorted to wood fuel for their heating and cooking needs during the winter, which decimated 70% of the region's forests. Many residents had power for only three hours a day, severely constraining small business growth and job creation.

The PPP project

To address this problem, in 2002, a PPP project between the government of Tajikistan, the World Bank, IFC, and the Aga Khan Fund for Economic Development (AKFED) was set up. Conceived as a 25-year concession agreement, the aim of the project was to finance the operation and management of a system for hydro-power production, transmission, and distribution. Through the same project, a grant from the Swiss government supported the most vulnerable households by providing them with affordable and reliable electricity with a grant.

The project was interrupted after an explosion and accidental flooding at the plant, in February 2007. The delays this caused to the project as well as damage to key equipment resulted in the project having to be restructured. Partners adjusted their commitment to the project to ensure its successful outcomes.

In 2008, with the support of the US Agency for International Development, Pamir Energy began exporting surplus power in the summer months to villages across the border in Afghanistan. This covered households, businesses, and a local hospital. Some 32,000 people in four Afghan districts now receive low-cost energy 24 hours a day for the first time in history, as a result of this project.

The PPP project has brought reliable power to more than 86% of residents of the Gorno-Badakhshan autonomous region, and 96% of the households in Eastern Tajikistan. And, due to its limited greenhouse gas emissions, Pamir Energy is able to generate revenues by selling carbon credits abroad. This helps the company serve as a source of livelihood and skills development, as it employs more than 630 residents and has created some 200 seasonal jobs.

'Electricity lines are connecting villages that have for the most part never had access to any kind of electricity, and the impact really is incredible,' said Daler Jumaev, general director of Pamir Energy. 'For one thing, being able to keep the lights on after dark means that kids can study at night, and using electric radiators improves respiratory health because families don't have to rely as much on burning wood for heat.'

Pamir Energy is expanding its power generation capacity by rehabilitating small hydro-power producers and connecting them to the grid. It is anticipated that by 2027, Pamir Energy will have invested $50 million in electrical infrastructure, yielding a conservatively estimated $120 million in economic benefits.

On both sides of the border, the renewable energy produced by Pamir Energy has reduced the need to burn trees or use high-polluting diesel generators. The company's long-term plan includes reaching more customers in Afghanistan and to expand its operations to Northern Pakistan by 2025 to connect power grids of the region.[1]

Replicable success factors

- There has been strong government commitment to sustained sector reforms and to improvements in the investment environment.
- Communicating the benefits of the customer-paying model to consumers was important.
- Making tariffs affordable was also a key factor in the project's success.
- The Swiss government's grant for supporting the poorest consumers was a critical precursor to future donor support. Many institutions are more routinely integrating this kind of support into PPP projects to address capital constraints and affordability issues.
- All parties were committed to minimising and reducing commercial and technical losses, such as natural losses of energy resulting from the physical transmission across lines). Stakeholders had a flexible and long-term perspective, which was important for managing challenging and unexpected circumstances.
- There has been a strong and capable controlling shareholder: the AKFED is committed to the country, the sector and communities.
- There is a balanced contractual framework with protection for private investors as well as realistic but demanding performance requirements.

Senegal

The Dakar-Diamniadio Toll Road

The context

Senegal's severe traffic congestion had for years caused problems for commuters, particularly in the capital, Dakar. It also hampered the delivery of goods across Senegal in general. With the city of Dakar contributing approximately 80% of the country's GDP, economists estimated that poor road infrastructure cost Senegal about 4.6 percent of its annual gross domestic product.

The government's focus was for Senegal to improve its transport infrastructure and boost its economy, and to enhance the role of Dakar as a central West African hub. To this end, in 2000 it used a grant from the World Bank's PPP advisory facility (PPIAF) to establish the institutional and regulatory framework for the transport sector in Senegal. Technical assistance support was also given to the National Agency for the Promotion of Investments (APIX) to consolidate the institutional framework and develop contractual arrangements for the Dakar–Diamniadio Toll Highway project.[2]

The government then retained the services of experienced advisors from DFIs and launched a tender for a private sector partner to build the first section (a toll road portion) of a much larger and longer regional highway project, the Trans-African Highway. This future Trans-African Highway is a key element of many of the priorities of the Programme for Infrastructure Development in Africa (PIDA), and is expected to boost long-distance trade in the region.

The PPP project

The tender for the initial toll road included a contractual cap on tolls at a socially acceptable level. Bidders were required to bid, among other things, on the amount of investment subsidies to be provided by the government. Eiffage, an experienced French road construction company and operator of toll roads under concessions with experience in the region, won the tender.

The financial plan included not only a healthy equity tranche by Eiffage, but subordinated and senior lending facilities, including one local currency (CFA) tranche to match revenues in local currency. There was also an investment subsidy from the government of Senegal, supported by DFIs. International Finance Corporation, the AfDB, the West African Development Bank (BOAD) and the Banking Company of West Africa (CBAO) were involved in the funding and provided other forms of support.

Financing of the road was dependent on the clarification and certain changes to the concession terms to address the private sector's concerns, as well as frank discussions around traffic and resettlement. The government of Senegal was willing and able to accommodate many of these concerns. In addition, the DFIs were able to support the project in meeting world-class environmental and social standards, including active community engagement.

The toll road reached financial close and was completed on time and on budget in 2015. And, based on the success of the first portion, the government has since awarded further sections for development, including a link to Dakar's new Blaise Diagne International Airport.

The developmental impact of the project has been substantial. In terms of efficiency, the Dakar-Diamniadio toll road has cut the average commute to and from Dakar from two hours to less than 30 minutes. This has improved economic opportunities for Dakar suburban residents, and connected them more easily with Diamniadio and other urban centres.

The original toll road project has created more than 2,000 jobs, mostly for locals in the Dakar suburbs. Improved mobility has markedly improved access to markets and helps Senegal's overall competitiveness.

And the higher-capacity road means less pollution from idling vehicles – translating into fuel savings for motorists, a cleaner environment, and better health for people in Dakar and the surrounding communities.

Replicable success factors

- The government of Senegal had trusted and experienced legal and financial advisors.
- The government had a flexible and constructive mindset and approach to addressing investors' and lenders' concerns. It maintained active commitment and goodwill throughout the process.
- Eiffage is an experienced construction and project partner with a strong track record and commitment to the country and sector. The company developed and maintained a strong and trusting relationship with the government.
- Traffic studies were conservative and the financial plan was conservatively structured to accommodate potential construction and operating cost overruns.
- The World Bank, AfDB and the French Agency for Development provided support for the public funding of the project and some investment subsidies, and IFC, BOAD, CBAO and AfDB financed the private project company.
- The government, with DFI support, executed a best-in-class resettlement programme and committed to broad consensus-building and community engagement, with the support of Eiffage.
- Affordable tariffs were set, as this was regarded as an essential component of the project's success.
- There was a clear toll-setting mechanism, in local currency only, with local inflation indexation.
- There were protective and balanced contracts with robust termination provisions.
- There was a fair formula for sharing financial upside.
- There was a clear allocation of expropriation risk to the Senegalese government, given the large resettlement programme the road would require.

Jordan

The Seven Sisters Renewable Energy Projects

The context

The government of Jordan was an early promoter of renewable energy in the Middle East and North Africa region. It was driven by a desire to move away from its reliance on expensive imported fossil fuels used for power generation, an abrupt reduction in the availability of regional natural gas supplies, and increases in power demand.

The PPP projects

Despite three attempts in the early 2000s, the government of Jordan had been unsuccessful in extending its international competitively tendered independent power project programme to renewable energy. So, in 2010, it implemented a direct proposal scheme in accordance with new enabling legislation. The 117MW Tafilah wind farm, financed by IFC, was the first prototype project under the new renewable energy framework. In 2013 the Jordanian government decided to develop common rules of engagement for other projects, as part of a PPP scheme. To this end, it launched a process of requests for proposals to encourage strategic investors to fund other viable projects. Due to their relative simplicity, a group of 12 solar PV projects were selected to proceed on a fast-track basis. They were awarded solar power purchase agreements (PPAs) in early 2014.

To support government's initiative and to meet the tight deadlines established under the fast-track procedures, IFC developed and offered the multiple developers a common financing platform to achieve critical mass and efficiencies of scale. It did this by processing these small projects in parallel, building on their standardised project documents to create simplified standardised financing documents that could be applied to each of the projects without long and costly bespoke negotiations.

A key part of the design process was the recognition that, at 10 to 20MW each, the PV projects in the original offering of 12 were too small on an individual basis to be able to attract long-term financing on their own and to bear the inevitably high transaction costs and long processing periods that conventional project finance would normally involve.

Once the financing package design was complete, IFC approached other lenders, offering the opportunity for lenders to commit to projects across the board, on a programme basis. Providing a platform financing approach allowed for the most competitive possible margins for each developer from the syndicate of lenders. This is because they were able to price for larger volumes and spread internal costs across a larger portfolio of assets. The syndication included parallel loans to the two larger as well as one of the smaller projects, provided by FinnFund and, on the two larger projects, the OPEC Fund for International Development. B-loans to six of the seven projects were provided by the Europe Arab Bank and/or FMO.

The Seven Sisters programme in Jordan, completed in 2014, was successfully replicated on a much larger scale in Egypt. This took place in 2017 through IFC's Nubian Suns programme, in which IFC financed 13 solar PV projects simultaneously under the Egypt renewable energy feed-in tariff programme.[3]

Replicable success factors

- There was strong government leadership and commitment to the success of its renewable energy programmes in Jordan. The demonstrable benefits made it easier to attract private investment for other government initiatives.
- Government took the courageous decision to go for a direct proposal scheme rather than the standard competitive tender.
- The bidding and contract documents were standardised for the multiple projects.
- The newly developed standardised project documents allowed for a coordinated approach to multiple smaller- and medium-sized renewable energy projects.
- Economies of scale for transaction advice and costs were achieved. Lenders were encouraged to use common advisors and to consider financing multiple projects and use standardised financing terms. This helped to reduce transaction costs and time, which was particularly important for smaller projects in emerging or challenging jurisdictions, where there had been very little exposure to international lenders.
- The power purchase agreement structure and set of financing terms were solid and balanced.

Côte d'Ivoire

The Azito Independent Power Producing Project

The context

Today, the Azito power plant generates electricity using natural gas supplied from Côte d'Ivoire's offshore gas fields. The facility, near the country's economic capital, Abidjan, uses combined cycle gas turbines that generate 430 MW of electricity. This equates to around one-quarter of the country's base load generation.

The plant supplies electricity under a 20-year concession agreement with the government of Côte d'Ivoire. Today, Globeleq owns 77% of the project company, Azito Energie, and 100% of the related operations and maintenance company, AZOM.

The Azito project demonstrates that a country like Côte d'Ivoire, even through extreme political turmoil, can attract and maintain private investment.

The PPP project

About two decades ago, the government of Côte d'Ivoire put out an international tender for the Azito domestic gas-fired power project. It was the second independent power producer (IPP) (after CIPREL in 1994, which was operating well) to be tendered and one of the first in a developing Sub-Saharan African country.

In 1997, the government awarded a 24-year build, own, operate and transfer (BOOT) concession agreement to a consortium that included Asea Brown Bovery and Industrial Promotion Services West Africa (IPS (WA)), an institution of the AKFED.[4] Electricité de France (EDF) joined the consortium shortly after. The lenders in the then-innovative Azito project included a number of DFIs, (IFC, DEG, FMO, and the AfDB), CDC and Société Générale, supported by a partial risk guarantee from the International Development Association (IDA). The $220 million project included a 288MW gas-fired power plant operating in open cycle mode in two phases, which were commissioned in 1999 and 2000, respectively.

Both phases of the plant have been successfully operating since then. A third phase was initially planned and this involved the addition of a 139MW steam cycle to the existing gas turbines to convert the plant to combined cycle operations. The expansion project was designed to allow the generation of around 50% more power with no incremental gas usage, and at a competitive tariff. Phase III, however was delayed because of a coup d'état in 1999 and two civil wars thereafter, one that took place 2002 to 2007, and the second one 2010 to 2011.

Phase III reached financial close in 2011 and operations were completed in 2015, enabling the plant to generate about 50% more energy, at a low tariff. CIPREL's expansion was completed in February 2016, nearly doubling its total capacity. Together, the two expanded plants provide over 50% of Côte d'Ivoire's generation capacity. The World Bank and IMF also supported the expanded project's development, and MIGA provided breach of contract cover to the controlling shareholder.

The good financial management track record allowed the project to attract further investment in 2010, with the acquisition of a controlling interest by Globeleq Generation Holdings (Globeleq) of the Asea Brown Bovery and EDF interests in the plant, leaving Globeleq with a 77% stake.[5]

Replicable success factors

- There has been excellent commitment and flexibility on the part of the government.
- The project has met the social and environmental targets in the contract.
- Sector reforms have largely been effective and continuing, though not without a few ups and downs. The government transferred its assets in the power sector to a separate entity (CI-Energies) and created an independent regulator, *Agence Nationale de Régulation de l'Electricité*, which is improving but not yet fully effective.
- Despite the depth of the political crisis Côte d'Ivoire experienced over the past decade and more, the sector showed resilience and performed well:
  - the IPPs were generally paid throughout the crisis years with only some arrears, including a peak at the worst time of the crisis in 2010
  - the network performance held up well
  - the expansion of access to power, with around 70% of the population having access to electricity today.
- The financing structure was set on the basis of a conservative debt-to-equity ratio.
- The project shows an excellent operational and financial track record. Debt has been fully serviced.
- The controlling shareholder and operator are experienced and committed. The original and new controlling shareholder/operator have strong operational and financial track records in similar environments and projects. They have exhibited flexibility and resourcefulness throughout difficult periods.
- Azito's performance during the challenging political period indicated the quality, high calibre, competence and dedication of staff. At the height of the political crisis, staff members spent several nights at the power plant located in Yopougon, a suburb outside of Abidjan, to ensure that uninterrupted power was provided to residents.
- There was a robust financial structure for contingencies.
- Construction delays and costs and operational efficiencies were conservatively managed.
- DFIs showed strong commitment to the project. In a difficult context, DFIs mobilised to finance this priority project of the country as very few commercial banks could step in.
- There was sensible insurance against political risk. Given the delicate, post-conflict country situation, MIGA provided a guarantee of up to US$108.9 million to cover the controlling shareholder, Globeleq, against the risks of war and civil disturbance, transfer restriction, expropriation, and breach of contract for all phases of the project, including the expansion.

Endnotes

1. Sources for this case study:
   http://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/pamir+power+grid+in+tajikistan;
   http://www.worldbank.org/en/results/2013/06/04/20-years-of-partnership-with-tajikistan;
   https://www.akfusa.org/our-work/pamir-energy/; http://www.akdn.org/press-release/pamir-energy-wins-prestigious-ashden-award-bringing-clean-energy-east-tajikistan-
2. Sources for this case study:
   http://www.pfie.com/easing-the-commute-in-dakar/616535.article (registration required);
   http://blogs.worldbank.org/ppps/five-secrets-success-sub-saharan-africa-s-first-road-ppp
3. Sources for this case study:
   https://www.ifc.org/wps/wcm/connect/0ff0525c-77c5-41f3-bb03-065932a8a143/EMCompass-Note-18-Seven-Sisters-Solar-Final-4-10.pdf?MOD=AJPERES;
   http://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/jordan-energy-forecast-is-sunny
4. AKFED is the sole for-profit entity of the Aga Khan Development Network and works in partnership with international organisations and governments to stimulate developing countries' private sectors with the objective of generating capital for investment in long-term and sustainable development initiatives.
5. Source for this case study:
   http://www.akdn.org/project/azito-energie-project

CHAPTER 7

Concluding thoughts

Hopefully it has been demonstrated that PPPs in very challenging developing country environments are possible. While there is no formula for guaranteed success, the four case studies of the Pamir, Diamniadio, Seven Sisters and Azito projects, and indeed, other successful PPPs, share a number of common features that are particularly crucial in the publication's focus countries. Summarised below are some of the most essential ingredients for success in the focus countries, arranged according to the PPP stakeholder most likely to be able to address the issue:

Country context and government commitment and leadership

The country context and government attitude and capacity to engage with PPP stakeholders are critically important in catalysing private sector interest.

- There should ideally be some degree of political stability and security in the country.
- Government must be dedicated to the success of the particular PPP and to building a track record of successful PPPs.
- Government must organise itself to be responsive to the other project stakeholders on a sustained basis. This is regardless of whether the government has decided to: 'go big' and tackle a sector through processing multiple projects simultaneously on a programmatic basis; or, instead 'start small' on smaller PPP projects or project located in more remote locations and which are not as high profile or likely to attract criticism.
- Government should have trusted international financial, legal and technical advisors that have a record of successful long-term PPPs; these advisors should be in place to support the government through the life of the PPP project.
- Government must be prepared to attract, build and sustain the confidence of private stakeholders. It needs to do this by ensuring that the project documents are not only balanced, but provide the most robust termination and other protection for investors and lenders. Examples would be deemed payments and termination compensation for government defaults and political force majeure events. This is most important at least in the first round of PPPs as the track record is being built, or in renewed attempts after previous PPP failures. It is also important in countries attempting to reignite private sector interest and rebuild confidence after challenging incidents in the country.
- Governments that decide that they can and should fully bear all government and country risks and even partial risk for certain commercial risks of the project should seek support, if necessary or desirable, for these risks from other institutions, such as DFIs. (See below.)
- Government must make steady progress on sector reforms. This includes generally sustained efforts to have an active and professional independent regulator, and tariffs that allow for a reasonable risk-adjusted return on investment.
- Tariffs must be affordable.
- Government must consistently comply with its contractual commitments.

The private partner

The physical success of the project is dependent primarily on the ability of the private partner to deliver on its commitments.

- The private partner should have been chosen through a transparent competitive process or, where circumstances require, through unsolicited proposal processes that include the types of protection mentioned in this publication.
- The private partner should be highly qualified with a track record of similar successful projects in similar environments.
- The private partner must be committed to the country and project and be willing to work hard and cooperatively with government.
- Key performance indicators must be rigorous and incentivise the private partner, and the private partner must be able and willing to meet them. There must be penalties for failure to meet KPIs.

- If robust investor and lender protection is in place or insurance is available at reasonable rates, the private partner should be able to agree to lower risk-adjusted returns, and consequently lower tariffs. (This includes in the case of political force majeure events.)
- If there is a strong strategic objective for a private partner to invest in the PPP project and country, the private partner may also be agreeable to sharing some risks that are beyond the control of the government as well as the private partner. This could include natural force majeure risks to ancillary public assets (such as an electricity grid) or limited political risks (such as war or sabotage and terrorism). However, lenders need to be protected even if the private partner is willing to share these risks or earn lower returns.
- The commercial deal must show value for money.

Development finance institutions

The role that DFIs can and should play in PPPs in the focus countries is wide-ranging. They can provide direct support or indirect support through the funding of other players, where governments cannot perform on their own:

- They should provide advisory and human capacity support throughout the life of the PPP.
- They should provide funding of some capital costs, where necessary, on a concessional basis, to ensure tariffs are affordable. Some of this funding could be denominated in local currency to protect against foreign exchange risk. Or the DFIs can provide other risk mitigation financial products (such as swaps) to help manage similar risks.
- They can and should help to mobilise resources and funding from other organisations to support their own provision of funding and resources.
- They should liaise with government to help to support the success of the project.
- They should fund ancillary public work, for example, funding for expansion or repair of an electricity grid or transmission lines.
- They can provide support for tariffs to keep them affordable. (Viability gap funding is one example, though there are others.).
- They can provide support on environmental and social standards and facilitate continuing community engagement in accordance with best practice.

All the players must commit to working together flexibly and creatively to ensure the success of the PPP.

ANNEXURES

Annexure 1: PPPs in developing countries in the last decade

PPP experience	Countries
0	Afghanistan, Belarus, Belize, Benin, Bhutan, Bosnia and Herzegovina, Botswana, Burkina Faso, Cape Verde, Central African Republic, Chad, Dem Rep Congo, Fiji, The Gambia, Guinea, Guinea-Bissau, Guyana, Lesotho, Maldives, Moldova, Mongolia, Montenegro, Niger, Paraguay, Somalia, São Tomé and Principe, Tonga, Vanuatu
1	Comoros, Kosovo, Kyrgyz Republic, Lithuania, Macedonia, Malawi, Mali, Papua New Guinea, Timor-Leste, Uzbekistan, Zimbabwe
2	Azerbaijan, Rep. Congo, Haiti, Iran, Islamic Rep, Liberia, Myanmar, Namibia, Sudan, Syrian Arab Republic, Tajikistan
3	Cuba, Djibouti, Ethiopia, Madagascar, Serbia, Sierra Leone, Togo, Tunisia, West Bank and Gaza, Republic of Yemen, Zambia
4	Cameroon, El Salvador
5	Iraq, Jamaica, Lebanon, Nicaragua
6	Angola, Côte d'Ivoire, Gabon, Kazakhstan, Mauritius, Mozambique, Rwanda
7	Armenia, Georgia, Ghana, Morocco
8	Ukraine
9	Bolivia, Panama
10	Kenya, Senegal
11	Albania, Tanzania, Venezuela, RB
12	Dominican Republic
14	Cambodia, Guatemala, Honduras
15	Jordan
17	Egypt, Arab Rep, Uganda
18	Ecuador, Uruguay
20	Costa Rica
21	Lao PDR
22	Nepal
24	Algeria
29	Romania
32	Russian Federation
34	Nigeria
40	Bulgaria
41	Bangladesh
45	Indonesia, Pakistan
48	South Africa
49	Philippines

PPP experience	Countries
55	Sri Lanka
64	Malaysia, Thailand, Vietnam
67	Peru
73	Chile
85	Colombia
109	Mexico
121	Argentina
132	Turkey
387	Brazil
639	India
680	China

Source: Do Countries Learn from Experience in Infrastructure PPP? PPP Practice and Contract Cancellation by Darwin Marcelo, Schuyler House, Cledan Mandri-Perrott, and Jordan Schwartz. (World Bank Group: Public-Private Partnerships Cross-Cutting Solutions Area, May 2017.)

Annexure 2: Procurement frameworks

The WBG has recently updated and implemented a new procurement framework and issued guidance relating specifically to PPPs.[1] Under the new framework, the World Bank has adjusted and enhanced its approach to PPPs. The aim is to further improve procurement performance, reflecting the different commercial dynamics that exist from a traditional public sector procurement engagement. Previous practice was that either the PPP concessionaire or operator be selected using the World Bank's procurement guidelines, or, if not, that it carry out its 'downstream' procurement using the World Bank's procurement guidelines. This approach was considered by the market to be too restrictive in what, by nature, is a unique commercial relationship, with different types of risk and risk allocation compared to a traditional public procurement.

Under the new framework for PPP projects, the World Bank requires governments seeking support from the World Bank to select a private partner using the most appropriate procurement approach. This needs to be consistent with the World Bank's core procurement principles, its anti-corruption guidelines, sanctions procedure and, as appropriate, with the requirements set up in the procurement regulations. The private partner selected in this manner will then procure the goods, work, non-consulting services and/or consulting services required for the facility from eligible sources using its own procedures. (This would be in accordance with the World Bank's anti-corruption guidelines and sanctions procedure.)

To further encourage innovation, unsolicited bids are also discussed in the new framework and are permitted for consideration in PPP contracts. Some other DFIs have adopted similar approaches such as value for money, fit for purpose, market analysis, value engineering, use of rated criteria for evaluation for work, goods and non-consulting services and treatment of abnormally low bids/proposals.[2]

Annexure 3: Conditions of project completion

Conditions of project completion are often divided into technical and financial conditions and include the following most important items:

(a) construction or similar completion of any physical work, if applicable (as defined in the construction contracts in terms of size, capacity, quality, performance and/or reliability) has been achieved and all construction costs have been paid, and the warranties and all security in support of such contractor obligations are effective (and the lenders' independent engineer has so certified); if relevant, all liquidated damages or buy-down payments have been made;
(b) the project has been accepted and declared fully operational by the grantor of the concession and government entities under the concession or offtake or similar agreements, and so certified by the lenders' independent engineer, and any performance bonds under these agreements have been released; if relevant, any liquidity or other support of the offtaker and/or for termination compensation has been posted or provided, and amounts required to be paid by the offtaker or users of the product or service under such offtake or similar agreement have been fully and punctually made for a specified period of time;
(c) any and all operational and supply agreements and infrastructure to be built or provided by the project company or other stakeholders (for example, fuel or other resources, pipelines, transmission, roads, ports, equipment, and so on) have been delivered on time for the smooth transition to operation of the project;
(d) certain financial ratios are met, including by way of example, historic and prospective debt service coverage ratio, loan life coverage ratio, debt-equity (with ratios depending on the sector and structure of the project);
(e) the amounts on deposit in lender-required bank accounts of the project company are filled to the extent required by the financing agreements, and the project company has available the requisite working capital or cash required by the financing documents at such time;
(f) the project company has paid all obligations (including, for example, any commitment, front-end and other fees and any interest payable during construction or implementation) under the financing and project documents then due and payable;
(g) all permits and authorisations required for the operation of the project and the performance by the project company of its obligations under the project and financing documents have been obtained and are in full force and effect;
(h) the project is in compliance with all environmental and social safeguards applicable to the project;
(i) no default or event of default has occurred and is continuing under either the project or financing documents; and,
(j) all security interests remain legal, valid, enforceable and fully perfected.

Annexure 4: Overview of direct agreements, including step-in rights

A direct agreement with a PPP contract counterparty, provides the following assurances by the contract counterparty:

(a) an acknowledgement of the notice of assignment of the contract (which is the means by which the security interest in the contract is perfected against third parties);
(b) a consent to the assignment of the contract to the lenders;
(c) an agreement to give notice to the lenders of any breaches by the project company under the relevant PPP document;
(d) an agreement, before terminating or suspending the PPP contract because of the breach, to permit but not oblige the lenders to have time to evaluate the breach and to 'step-in' to cure the project company's defaults. This is to avoid termination or suspension of the contract. This right is exercised in the lenders' capacity as lenders – namely, pre-enforcement of their security. This provision also critically provides that the lenders do not, by electing to step in and cure project company defaults, assume any continuing obligations or liabilities during this period;
(e) an agreement to give the lenders a choice whether to legally take over the contract (directly or indirectly with a substitute operator that they identify) and to continue performance of the project company's obligations to deliver the public service or product;
(f) an agreement to permit and to recognise the lenders (or their successor) as the legal owner and operator from the point at which the lenders (or their successor) formally succeeds to the contract;
(g) an agreement that, if for any reason the contract must be formally terminated or retendered (for example, because of the change of control of the operator), it will enter into a contract with the lenders or their designee that is substantially the same as the contract being terminated;
(h) an agreement that, upon notification to the government or purchaser by the lenders of a company payment default under their loan agreements, the lenders will have the right to take possession of the project and, before the commercial operations date, to finish the construction or implementation of the project and to operate it; and, after the commercial operations date, to operate the project. And the purchaser will pay any amount due to the project company directly to the lenders, including any termination payment due under the offtake agreement, and generally only to recognise the lenders' exercise of the rights of the project company and the giving of instructions on behalf of the project company (and not to recognise the company); and that, in the event of termination of the offtake agreement/PPP contract, any payment due to the purchaser by the project company will be subordinated to the payment of any amounts due to the lenders; and,
(i) an acknowledgement and agreement that, in the case of bankruptcy or liquidation of the project company, the purchasers' obligations under the offtake agreement will continue for the benefit of the lenders.

Endnotes

1. See http://www.worldbank.org/en/projects-operations/products-and-services/brief/procurement-new-framework
2. See also, for example: https://www.afdb.org/en/projects-and-operations/procurement/new-procurement-policy/ and http://www.ebrd.com/news/publications/policies/procurement-policies-and-rules.html
3. See http://www.ifc.org/wps/wcm/connect/topics_ext_content/ ifc_external_corporate_site/sustainability-at-ifc/publications/publications_handbook_pps
4. http://equator-principles.com
5. http://www.oecd.org/tad/xcred/
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