Chapter 4:
Legal Frameworks for Successful Public-Private Partnerships
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Final Draft
ABSTRACT

In many countries the private sector has been involved in financing infrastructure through concessions under a public-private partnership (PPP) program. PPP projects, however, are somewhat underutilized in transition and developing economies, where the potential financing gaps are significant and growing, and there seems to be an enormous potential for more private sector involvement in the financing and operation of infrastructure assets.

The reasons for the low private financing of infrastructure in several economies include relatively low demand (e.g., road traffic volumes), lack of appropriate legal frameworks, economic and political instability and consequent high perception of risks. As demand increases, new legislation is enacted, and institutions and economic growth become more sustainable, it is likely that the sector will become more attractive to private investors.

This paper reviews the required legal framework for attracting private capital for PPP projects, possible steps for a country to launch a program of PPP in highways, the concept of greenfield and road maintenance concession programs, public sector comparators, competitive selection of concessionaires, and the use of partial risk guarantees to mitigate risks.

The paper also reviews the requirements for good governance in PPP projects. Because such projects in infrastructure tend to have monopolistic features, good governance in managing them is essential to ensure that the private sector’s involvement yields the maximum benefit for the public.
INTRODUCTION

Many governments do not have all the financial resources required to expand, maintain, and operate their country’s transport networks and other forms of infrastructure. While the overall resources needed are enormous, it is well recognized that the quality of physical infrastructure affects a country’s productivity, competitiveness in export markets, and ability to attract foreign investment (Akitoby et al. 2007).

In many developed and developing countries, the private sector has been involved in financing infrastructure through concessions under a public-private partnership (PPP or P3) program. Interest in PPP has grown in several countries and regions. As an example, a recent European Parliament resolution stressed that the Europe 2020 strategy can only be credible if it is adequately funded and emphasized that ’’greater reliance on Public Private Partnerships (PPP) can be an effective approach, without being a ”one-size-fits-all” solution (European Parliament 2010).

Public-private partnerships are long-term associations between the public and private sectors that usually involve the private sector undertaking investment projects that traditionally have been executed (or at least financed) and owned by the public sector. The central feature of a PPP is that the public sector purchases (directly or through user charges) a flow of services rather than building or procuring the physical assets and employing the personnel for its maintenance and operation.

The archetypical PPP is a Build-Operate-Transfer (BOT) project, where a private sector company or consortium (the ’’concessionaire’’) builds, operates, and transfer the asset back to the public sector at the end of the concession life. The concessionaire sells the final service to the public sector or to the public (i.e., the users) under a government concession. Broadly defined, a concession is a legal arrangement in which a firm obtains from the government the right to provide a particular service (Kerf 1998). The transfer of risks to the private sector is a key requirement of PPP to fuel private sector’s drive for efficiency. Where commercial risks are shifted to the private sector, private participation will deliver better results than credible alternatives, such as attempts to strengthen public provision (Harris 2003).

PPP projects, however, are somewhat underutilized in transition and developing economies, where the potential financing gaps are significant and growing, and there seems to be an enormous potential for more private sector involvement in the financing and operation of infrastructure assets in these countries. Since the 1990s, governments remain the main source of infrastructure financing in such countries, providing 78 percent of the total investments, while the private sector has contributed only 22 percent (PPIAF/World Bank 2010).

With many developing countries increasingly interested in attracting private capital to infrastructure projects, partial risk guarantees (and other forms of guarantees or insurance) are particularly relevant in the context of seeking more private involvement in the financing of infrastructure, especially in the case of large transport infrastructure projects.
This paper reviews the required legal framework (for example, concession law) for attracting private capital for PPP projects, potential applications of partial risk guarantees, possible steps for a country to launch a program of private participation in infrastructure, the concept of greenfield and infrastructure maintenance concession programs, and the treatment of unsolicited proposals. It also reviews the requirements for good governance in PPP projects. Because such projects in infrastructure tend to have monopolistic features, good governance in managing them is essential to ensure that the private sector’s involvement yields the maximum benefit for the public. Seemingly non-legal issues, such as a risk matrix and procurement procedures, are also discussed because they are relevant to an enabling legal PPP framework.

There has been so far relatively low private financing of road infrastructure in transition and developing economies. The reasons for this include lack of appropriate legal framework, economic and political instability and consequent high perception of risks, and relatively low demand for infrastructure services. As appropriate legislation is enacted (Russia, India, Brazil and Serbia are good examples), institutions and economic growth become more sustainable (China and India, as an example, have grown steadily over the last several years), and there is higher demand for infrastructure (for example, traffic has increased substantially on key roads and corridors), it seems fair to expect that the sector will become more attractive to private investors. High economic growth figures dramatically reduce the demand risks faced by private sector investors, thus reducing the need for minimum revenue guarantees.

Nevertheless, appropriate legal structures are a key success factor. Promoting sound and well-functioning legal systems minimizes risk and assists the development of an attractive investment climate (EBRD 2010a).

**Factors for Successful PPP Projects**

A World Bank analysis of the experience with motorway development in Hungary, the Czech Republic, Poland, Slovenia, Croatia, Romania, and Serbia showed that any PPP project, in order to be successful, requires strong Government support and long lasting political will and engagement (World Bank 2004a). A study conducted by the European Parliament highlights the following key success factors for PPP projects (European Parliament 2007):

(a) **Political commitment and a clear policy.** The experience in successful PPP countries illustrates the importance of political will to implement PPP. For example, in the UK and in the Netherlands, the personal effort by high level government officials led to the successful implementation of PPP in several sectors, including roads, rail, schools, urban development, and government accommodation.

(b) **A competent public administration and transparent institutional framework.** To ensure efficient and effective transactions it is crucial that the public administration is well trained, that PPP activities are coordinated, and that guidance to PPP is provided to all stakeholders. For these purposes mainly many
governments have established central PPP units following the practice in the UK, as discussed later in the paper.

(c) **Availability of both public and private capital and willingness to invest by the private sector.** In general there is a large amount of private capital available for infrastructure projects, mainly from international banks but also locally (both public and private) in several countries (e.g., Brazil, Russia, India).

(d) **A legislative framework to enable PPP.** In many countries the legislative system may not support the concept of PPP, such as the transfer of the responsibility to have a private entity provide a public service, and the suitability of procurement legislation for PPPs. Countries such as Ireland, Spain, Portugal are successful PPP countries and all have a specific PPP legislation in place. A study by the European Bank for Reconstruction and Development (EBRD) illustrates that several countries, where concession legislation has low to medium compliance with international standards, have limited or no successful PPP programs (EBRD 2010b). In addition to an enabling legislation for public authorities to enter into PPPs, it may also be necessary to ensure that investors can take security over project revenues. Next section elaborates on what is meant by an adequate concession law. An appropriate legal framework may reduce the need for public sector guarantees, thus facilitating the transfer of risks to the private sector, which is a key feature of PPPs.

**LEGISLATIVE FRAMEWORK**

As described in detail in the Toolkit for PPP in Roads and Highways (PPIAF/World Bank 2009), the legislative framework includes two different types of laws: (i) the laws that make PPP possible, also called the enabling law or framework, such as a country concession law or PPP law; and (ii) the laws that may have an impact on a PPP project, which are numerous because PPPs are large and complex multi-faceted projects. While the Toolkit was developed specifically for the road sector, most of its components, mutatis mutandis, also apply to other infrastructure sectors.

The enabling law could either be general or sector specific, including concession and PPP laws, and sector specific laws. Examples of laws that typically would have substantial impact on a PPP project in infrastructure include:

- Public procurement
- Foreign investment laws
- Property laws
- Dispute resolution
- Company laws
- Security and insolvency laws
- Tax laws
- Accounting standards
- Labor laws
- Intellectual/industrial property laws
- Environment laws
- Competition laws
- Tort laws

The focus of this paper is on PPP enabling law, and several related issues such as risks and procurement procedures.

**PPP ENABLING LAWS**

According to a study commissioned by the European Parliament, a good PPP law can serve as a communication and a marketing tool for investors (European Parliament 2007). It should delegate down to sub rules and regulations most details. In case of conflict with existing laws, such laws should be updated or repealed accordingly.

An appropriate concession law is fundamental for a country to establish an enabling environment for PPPs. It should apply to construction, expansion, rehabilitation and maintenance of assets providing a public service, aiming at improving the efficiency and modernization of public services.

A concession law can be kept relatively simple and general, while specific regulation (e.g., the way in which the procurement process will be conducted, award criteria, selection committees) should be documented in operational guidelines (or decrees). A separation between law and regulation provides more flexibility for amendments during the implementation of a PPP program.

Public disclosure of concession agreements is highly desirable (Queiroz and Kerali 2010). This has several benefits: (a) it provides a further check on corruption, which in addition to its direct benefits can enhance the legitimacy of private sector involvement in often sensitive sectors; and (b) when the concession agreement relates to the provision of services to the public, it provides consumers with a clearer sense of their rights and obligations, and can facilitate public monitoring of concessionaire performance. The lack of transparency in concession agreements may lead to serious public concerns, as highlighted in a report by Transparency International (Transparency International 2005).

Concession laws should establish clear mechanisms for renegotiation and amendments (as a way to minimize contract distress and cancellation). The renegotiation of projects is not an unusual occurrence (Harris et al. 2003). In fact, about half of all concessions become subject to re-negotiation, often due to unrealistic cost and revenue assumptions (Amos 2004). While not all renegotiation is undesirable, opportunistic renegotiation should be discouraged in both existing and future concessions. The appropriate behavior for governments is to uphold the contractual obligations resulting from the competitive bidding process, and not to concede for opportunistic requests to renegotiate. Improving concession design and establishing credible regulations can lower the incidence of renegotiations (Guasch 2004: 38, 96).

Concession laws typically identify the government agency (or agencies) responsible for overseeing the bidding, construction, and operation of the authorized projects and set
parameters for each. Laws vary as to the rules of tender, but frequently involve a two-stage process, following pre-qualification.

In a two-stage bidding procedure, first unpriced technical proposals on the basis of a conceptual design or performance specifications are invited. Such proposals are subject to technical as well as commercial clarifications and adjustments. Then, as a second stage, amended bidding documents are issued and the final technical and priced bids are submitted (World Bank 2010a).

The exact terms of the concession are then negotiated between the preferred bidder and the government before the concession is signed. The concession law will also usually address the methods of financing, in some cases including state funding as part of the concession.

Some details, however, may be better placed in a Model Concession Agreement (MCA), as is the case of India (India 2009), than included in a Concession Law. These may include standards and methods of user fee collection, technical specifications for the physical structure, and the state's obligations toward the concessionaire with respect to land acquisition. Standardization in this respect, however, is not the preferred approach in several countries.

Some key terms of concession legislation include the project structure (e.g., build-operate-transfer or BOT, design-build-finance-operate or DBFO, availability fee or annuity), the concession life, required percentage of domestic participation (more likely in less developed countries), and possibly limitations on the transfer of shares to third parties until the project completion.

A study carried out by the European Bank for Reconstruction and Development (EBRD 2010b), on the compliance of transition economies with international practices regarding concession legislation, indicates that only a few countries in the region studied (i.e., East Europe and Central Asia) show a high degree of compliance, thus indicating there is a need for improved legal framework in several countries. Nevertheless, there have been recent improvements including, for example, legal reforms in Russia in response to the global financial crisis (Stubbs and Higgins 2010).

A PPP framework law (or enabling law) is not essential for a successful PPP program. The United Kingdom, for example, which is the European country with the most developed PPP market, does not have a specific PPP law (which may be related to the U.K. jurisprudence and common law tradition). It relies on its commercial laws for the implementation of PPP projects. However, there are a number of countries where existing laws of a host country may need to be modified to allow for successful infrastructure PPP projects, such as enabling the grant of step-in rights to lenders and requiring open and fair procurement processes. These modifications may be embodied in sector-specific law, or in the case of procurement, a procurement or competition law. Or they can be included in a general concession or PPP law. Guidance on drafting PPP/Concession laws, including sample enacted PPP laws, is provided under the World Bank website on PPP Laws/Concession Laws (World Bank 2010b).
A study by the EBRD (2005) reviewed the implementation of PPP programs in a sample of common law countries (Australia and UK) and civil law countries (Croatia, Czech Republic, Hungary, Netherlands, Portugal, and Romania). The study found that the opportunities for innovation and for fast implementation of PPP schemes enabled by the freedom inherent to the structure of common laws have resulted in more use of PPPs’ potential. However, the greater flexibility in common law requires more safeguards, as it is more open to misuses and less predictable consequences. For less developed and emerging economies, a PPP enabling legal framework may help attract broader interest from private sector investors.

Many countries or states have also adopted laws specifically governing the granting of concessions in specific sectors. This is the case, for example, of the UK, Poland, France, Ukraine, States of California and Virginia in the USA, which have specific laws for toll road concessions. In such cases, the distinction between common law and written law countries seems to be irrelevant.

**CONSTRAINTS OF PRIVATE SECTOR INVOLVEMENT**

Public-private partnerships involve two agents whose objectives are different, who are in possession of different levels of information (informational structure), and who are rational economic agents trying to maximize their objectives with minimum effort (Macário 2010). Such complexities pose some constraints to private sector involvement in infrastructure projects.

When a government is considering whether to launch a PPP project, several constraints should be considered. The World Bank *PPP in Infrastructure Resource Center for Contracts, Laws and Regulation* (World Bank 2010c) provides a good description of such constraints, which can be summarized as:

(a) The private sector will do what it is paid to do and no more than that – therefore incentives and performance requirements should be included in the contract.

(b) There is a cost attached to debt – while the private sector can make it easier to get finance, finance will only be available where the operating cash flows of the concessionaire are expected to provide an acceptable return on investment, i.e., the cost has to be borne either by the users or the government (through, for example subsidies, shadow tolls, annuities). Care should be taken, however, in providing such government support to avoid (i) harming the transfer of risks feature of PPP, and (ii) overburdening the country’s future budgets.

(c) Bidding and ongoing costs in PPP projects are likely to be greater than for traditional government procurement processes - the government should therefore determine whether the greater costs involved are justified (UK PFI 2008).

(d) There is no unlimited risk bearing – private firms will be cautious about accepting major risks beyond their control, such as exchange rate risks, risk of existing assets, and some demand risks. If they bear such risks then their price for the service will reflect this. Private firms will also want to know that the rules
of the game are to be respected by government as regards undertakings to increase tariffs and fair regulation. The private sector will also expect a substantial level of control over operations if it is to accept certain risks.

(e) Government responsibility continues – citizens will continue to hold government accountable for the quality of the facility and services provided. The government will also need to retain sufficient expertise, whether itself or via a regulatory body, to be able to monitor performance of the private sector and enforce its obligations.

(f) A clear legal and regulatory framework is crucial to achieving a sustainable PPP program.

A country’s legal framework may also include requirements for carrying out a public sector comparator and a competitive selection of the private concessionaire, as discussed further in the paper.

**PPP VALUE ADDED**

Several countries require that PPP should only be considered if it can be demonstrated that they will achieve additional value compared with other approaches, if there is an effective implementation structure, and if the objectives of all parties can be met within the partnership. Regarding additional value, as an example, the UK Government has developed a value for money (VfM) framework, the application of which (including a ’Quantitative Evaluation’ tool) is mandatory for all PPP projects proposed in the UK (UK HM Treasury 2006).

A usual way to estimate the value for money of a PPP project is to carry out a Public Sector Comparator (PSC) exercise. PSC plays a key role in project development in such countries as Australia, Canada, the Netherlands, South Africa, as well as the United Kingdom, the country where it originated in the early 1990s. The PSC main objective is to help ensure that PPP projects clearly demonstrate a viable alternative and value for money before public partners enter into PPP contracts. The PSC method consists in conducting a quantitative comparison between a PPP project and a public sector project that would deliver the same services.

The PSC can be interpreted as a risk-adjusted financial model of the hypothetical public sector project. It estimates the total costs to the government of achieving the targeted outputs, assuming that the project is handled in the ’normal’ way, with reasonably foreseeable efficiency improvements. The comparison is typically made before bids are received – to determine whether to proceed with the expensive PPP procurement process. In this case, the comparison is made with a hypothetical PPP project, a risk-adjusted financial model that estimates the total cost to government of having a private company deliver the targeted outputs. In some cases the comparison is also made after bids are received to refine the comparison when the private sector financial proposals are known. However, the usefulness of such refinement is debatable, as a commitment to involve the private sector may have already been made at this stage.
When public funding is unavailable to implement a project without private financing, the PSC is largely irrelevant. For example, in Australia, the Fitzgerald report (Fitzgerald 2004) recommended against carrying out the PSC comparison where public sector provision is not a reasonable option.

In view of the subjectivity of the PSC estimates (e.g., small adjustments for risks or discount rate can have dramatic effects on cost estimates), Leigland has appropriately suggested that it might be sensible to use the PSC more as a way to achieve consensus among stakeholders about what features a project should have than as an expert judgment for convincing stakeholders that a project offers value for money (Leigland 2006).

**STEPS TO LAUNCH A PPP PROGRAM IN INFRASTRUCTURE**

A first step in launching a PPP program in infrastructure in a country is to define the priority projects where the government envisages soliciting private investors financing of the total or partial cost of the project. Several countries have prepared such project lists. In the case of Russia, for example, several high priority projects for potential PPP in highways have been identified, such as Moscow-St. Petersburg motorway, outer Moscow ring road, Moscow-Minsk highway, access to Domodedovo airport, St. Petersburg Western High-speed Diameter Motorway, bridge on Volga river at Volgograd.

Other steps to launch a PPP program would include (some of these steps can be done in parallel):

(a) Enact relevant legislation (as discussed earlier);

(b) Carry out feasibility study of priority projects. Employ reputable consultants, using well prepared terms of reference. Identify/quantify social and economic benefits; carry out financial assessment to help check the potential for attracting private capital (for example, relatively high overall project financial rate of return and return on equity);

(c) Carry out environmental and social assessment, including development of mitigation plan and land acquisition plan for the right of way;

(d) Assess the willingness of users to pay; review tolling / payment options (for example, actual tolls, shadow tolls, vignette system, availability fee or annuity);

(e) Define performance standard for the new investment and the service standards during the operation period.

**SELECTION OF THE STRATEGIC PRIVATE INVESTOR OR CONCESSIONAIRE**

Open and transparent competitive bidding is usually perceived as a prerequisite to ensuring the efficient allocation and use of scarce public resources. The World Bank Procurement Guidelines recommend the use of international competitive bidding (ICB)
to select the concessionaire or entrepreneur under BOO (Build, Own, Operate), BOT (Build, Operate, Transfer), BOOT (Build, Own, Operate, Transfer) or similar type of concessions for projects such as toll roads, tunnels, harbors, bridges (World Bank 2004b). The Guidelines state that the ICB procedures may include several stages in order to arrive at the optimal combination of evaluation criteria, such as the cost and magnitude of the financing offered, the performance specifications of the facilities offered, the cost charged to the user, other income generated by the facility, and the period of the facility’s depreciation. Competition can help to reduce prices and expand access, and should be used to the maximum extent possible (Harris 2003). In order to facilitate bid evaluation, it is highly recommended that a simple criterion be applied to compare the price proposals. Examples of such criterion include minimum toll rate to be charged to the users, minimum annuities to be paid by the government to the concessionaire, or maximum present value of the payments to be made by the concessionaire to the government during the concession life.

The European Union encourages the use of the ‘competitive dialogue procedure’ for major projects (Freshfields Bruckhaus Deringer 2005). Such competitive dialogue is somewhat similar to the World Bank ICB procedure that involves two stages (World Bank 2004b).

Steps in the selection process are likely to include:

(a) **Advertising.** A notice requesting expressions of interest to prequalify should be published in at least one international newspaper and one of national circulation and should include the scheduled date for availability of prequalification documents.

(b) **Investor Feedback.** Meeting with selected potential investors/concessionaires to solicit feedback on the options being analyzed as well as on the key parameters and assumptions underpinning the conclusions of financial feasibility.

(c) **Public Information.** Implement an appropriate program to disseminate information to the public on the financing and construction of the proposed facility (or project).

(d) **Prequalification of Concessionaires.** Develop operational and financial criteria to be used in judging the suitability of prospective bidders, and conduct a transparent pre-qualification process. Pre-qualification ensures that invitations to bid are extended only to those who have adequate capabilities and resources. Prequalification shall be based entirely upon the capability and resources of prospective bidders to perform the particular concession contract satisfactorily, taking into account their (i) experience and past performance on similar contracts, (ii) capabilities with respect to personnel, equipment, and construction, and (iii) financial position. All bidders that pass this stage are by definition qualified and should be considered for the next phase.

(e) **Inviting pre-qualified firms/consortiums to submit bids.** Define the procedures for the pre-qualified bidders to carry out their own due diligence of the proposed
project. In addition, a Data Room prepared by the Client should be made available to potential investors, to enable them to fully assess the investment opportunity.

(f) **Bidders' review and comments.** In order to minimize opportunities for post-bid negotiations on substantive issues with the winning bidder, major transaction documents (such as concession contract, shareholders agreement) should be circulated to the bidders for review and comments before bids are submitted. The clear understanding to bidders should be that the period designated for review and providing comments will be their only opportunity to influence the terms of the bidding process.

(g) **Competitive Bidding Process.** Once the structure of the transaction has been approved, organize a competitive bidding process to award the concession contract to a strategic investor. Steps in the bidding process include preparation of the tender documents, administering the offering period for bidders due diligence, and preparing the bid procedures and selection criteria.

(h) **Bid Evaluation.** Evaluate the bids received based on the agreed, transparent selection criteria, and recommend award to the best evaluated bidder. As an example, in the case of road projects, typically the final selection criterion is based on: (i) the minimum toll rate proposed by the bidders; or (ii) the minimum public contribution, or subsidies, to the construction cost of the project, which is required by the bidders; or (iii) the minimum availability fee or annuity proposed by the bidders.

(i) **Transaction Closure.** The principal parties complete and execute the concession contract, shareholders agreement and other documents necessary for the satisfactory closing of the transaction.

(j) **Public disclosure of the concession agreement.** By providing a further check on corruption, this can enhance the legitimacy of private sector involvement.

The selection process described above follows general international good practice. However, in cases where competition is perceived to be relatively limited and the country environment is prone to collusion of prospective bidders, some innovative approach in the procurement process may lead to better results. A good example is provided in the selection of concessionaires under the second phase of the Brazilian federal road concession program. The first phase, in the 1990s, had followed a more traditional approach, which led to relatively high toll rates. In the second phase, around 2008, the selection was carried out by the Sao Paulo Stock Exchange (BOVESPA) through an auction (Amorelli 2009). The process consisted of the following main steps:

(a) Public consultation on the draft bidding documents.

(b) Preparation of the final bidding documents.
(c) Adopting as the selection criterion the lowest toll rate (as in the first concession phase).

(d) BOVESPA held a simultaneous auction for seven road concessions, without prequalification, defining the bidder offering the lowest toll rate for each project road, including foreign firms.

(e) The bid evaluation committee reviewed compliance of the technical offer and bid guarantee of the best-ranked candidate for each project, while other technical offers were not opened.

(f) Award of each concession contract to the respective lowest bidder, without negotiations.

Compared to the first phase of road concessions, the innovative approach used in the second phase showed considerable advantages, by (i) reducing the time between invitation to bid and contract signing, and (ii) leading to substantially lower toll rates, with an average of about US$0.02/car-km, compared to about US$0.04/car-km in the first phase. Additionally, the sequencing of bidding steps (financial offer first, technical second) limited the impact of judicial recourses – a critical factor in traditional tendering processes in Brazil (Véron and Cellier 2010).

While this innovative approach worked well for these relatively simple projects, it is likely that the traditional approach, including prequalification, will be the most appropriate for more complex projects.

Nevertheless, the above example illustrates that even in a country with a well established legal framework it is important to keep some flexibility for applying innovative solutions to specific problems (such as collusion of potential concessionaires).

**UNSOLICITED PROPOSALS**

Unsolicited proposals, which seem attractive to some governments in their wish to accelerate the implementation of infrastructure projects in the country, tend to be so controversial (usually involving allegations of corruption), that in fact they usually take longer to award than an open, competitive tender procedure. In theory, unsolicited proposals could generate beneficial ideas; in practice, there have been a number of unfavorable experiences, mostly as a result of exclusive negotiations behind closed doors. There have been cases where a contract signed between a government and a private company included a clause that prohibits any leakage of the signed contract.

Several countries have adopted specific legislation to deal with such proposals, while some governments have simply forbidden unsolicited proposals to reduce public sector corruption and opportunistic behavior by private sector companies. The general experience with unsolicited proposals is often negative, reflecting the fact that projects of this type have usually represented poor value for money, and were frequently incompatible with the actual development needs of the countries, and their ability to
pay. They also often lead to allegations of corruption. Corruption has been shown to be associated with the lack of adequate transport infrastructure in a country, as well as a low degree of economic development (Queiroz and Visser 2001). It is essential to eliminate or minimize the perception, as well as the reality, of corruption in PPP programs so that such programs can best contribute to a country’s economic development.

Some governments have adopted procedures to transform unsolicited proposals for private infrastructure projects into competitively tendered projects. Such countries include Chile, the Republic of Korea, the Philippines, and South Africa (Hodges 2003a and 2003b). How to respond to unsolicited bids so as to protect transparency in the procurement process and recognize the initiative of the proponent, is typically difficult. The World Bank considers that unsolicited proposals should be dealt with extreme caution and does not permit the use of unsolicited proposals in World Bank-funded projects.

A number of approaches on managing unsolicited proposals are available on the World Bank PPP in Infrastructure Resource Center for Contracts, Laws and Regulation (World Bank 2010b). Such approaches include:

(a) UNCITRAL Approach. UNCITRAL sets out suggested legislative language in provisions 20 to 23 of its Model Legislative Provisions (UNTRICAL 2004). Whenever a host authority receives an unsolicited bid, UNCITRAL recommends that the authority first consider whether the proposal is potentially in the public interest. If so, the authority then requests further information from the proponent in order to make a full evaluation. If the authority decides to go ahead with the project, it determines whether the project involves intellectual property, trade secrets or other exclusive rights of the proponent. For projects that do not involve these rights, a full selection procedure is followed, with the proponent being invited to take part in the selection. If it does involve the proponent’s intellectual property, a full selection procedure does not need to be followed. In this case, the contracting authority may request the submission of other proposals, subject to any incentive or other benefit that may be given to the person who submitted the unsolicited proposal.

(b) Chilean law approach. Chile has adopted an approach whereby the project proponent is required to take part in a fully competitive tender process, but is given bonus points in relation to the evaluation (Chile 1997).

In view of the risks involved with unsolicited proposals, it seems essential that the legal framework in each country include a clear provision to deal with this type of offers.

RISKS MANAGEMENT

Risks associated with PPP programs should be adequately managed. The main risks of PPP projects, in addition to changes in design during construction, which can lead to significant cost increases, are those that affect gross revenue. Revenue related risks usually reflect uncertainty in both the predictability of future demand (e.g., traffic
volumes) and the willingness of users to pay tariffs. In the particular case of roads, Bain compiled a database of predicted and actual traffic usage for over 100 international, privately financed toll road projects. Bain’s findings suggest that toll road traffic forecasts are characterized by large errors and considerable optimism bias. As a result, financial engineers need to ensure that transaction structuring remains flexible and retains liquidity such that material departures from traffic expectations can be accommodated (Bain 2009).

A study of 67 toll road cases by Standard & Poor’s found that actual traffic, on average, was 70 percent of the forecast volume, with a spread of 18 percent to 146 percent (Standard & Poor’s 2002). For countries without previous tolling experience, the average actual traffic was only 56 percent of the forecast, compared with 87 percent for those with previous experience.

Particularly helpful PPP resource guidance, including risk issues, can be found in: (i) Public and Private Sector Roles in the Supply of Transport Infrastructure and Services: Operational Guidance for World Bank Staff (Amos 2004); and (ii) Guidelines for the Development of Successful Public-Private Partnerships (European Commission 2003). The European Commission, recognizing that Accession Countries and Member States can potentially benefit from the PPP approach to reform and upgrade infrastructure and services, has published, in addition to the Guidelines, a Resource Book with a number of PPP case studies across countries and sectors (European Commission 2004).

Risks should be identified for each stage of a project, and responsibility should be allocated for the identified risks. More detailed discussions of the risks involved in a PPP project, as well as their allocation, are provided, for example by Delmon in the Private Sector Investment in Infrastructure: Project Finance, PPP Projects and Risks. (Delmon 2009) and Irwin in the Government Guarantees for Private Infrastructure. (Irwin 2007).

As PPP are legally long-term contractual agreements, responsibilities should be clearly defined as they will determine the costs that the public and private partners will ultimately pay. For example construction risk is usually transferred to the private sector, which means that it will be responsible (and will not be able to claim additional compensation) for delays and cost-overruns in completing the works. The best approach is not to try to transfer all risks to the private sector, as this would result in less interest (or no interest) by the private sector or a much higher cost to the public sector. As a result, risk allocation is a very important component in the assessment of any PPP project (Queiroz and Kerali 2010).

A good practice in preparing risk matrices is to adopt the following structure for each stage of the project:

- Description of the risk
- Proposed allocation of the risk (usually two columns – ‘Grantor’ and Concessionaire’- and one of them gets checked for a particular risk)
- Comments
The general rule is that risks need to be allocated to the party that is best capable to manage them. This means that the government would need to take some risks that it can manage better or because the costs of the private sector assuming such risks would be too high. The private sector will price the risk of the project based on how individual risks are allocated, their likelihood of occurrence, and impact. If the private sector is transferred a risk that it cannot control (for example, inflation being higher than forecast) it will either take a very conservative scenario (such as assuming a very high inflation rate) or simply not accept it (and therefore will not make any proposal, thus reducing competition). The risk allocation exercise requires a very good understanding of the market and project finance principles in order to allocate the risk in a way that balances the public and private sector concerns and interests.

The preparation of a risk matrix would help the government to decide which risk should be allocated to which party. Risk framework is a useful tool that provides the basis for discussions on potential structuring of the transaction and relevant policy choices, and allows the government team preparing the project to discuss with the decision makers the proposed risk allocation and obtain approvals for moving ahead with the transaction. The risk matrix should be prepared with a legal perspective in mind because it should provide the basis for drafting the PPP legal agreement/concession agreement.

Potential bidders will carefully examine the risks and proposed risk allocation and will prepare their bids based on their perceived risks and how comfortable they are with taking on some of the risks. In view of the volatility of the market resulting from the current global economic crisis, and the limited experience with PPP in some countries, it is likely that the investors will be uncomfortable with assuming many risks that are usually borne by the private sector in established economies with good track record of PPP projects.

The risk allocation matrix should be updated and refined as project preparation evolves. It is usually prepared with the support of transaction experts and in consultation with potential bidders. Ultimately the risk allocation will determine if a PPP project is financeable (i.e., lenders will not finance it if they believe the risk allocation is not appropriate), so the public sector should remain flexible when designing such a matrix.

Countries with limited PPP experience, in particular, may be seen as risky environment for private investment, and the use of risk mitigation instruments can help reduce the risk perception and facilitate private sector investment.

Regarding risk mitigation, several instruments can be used to facilitate the mobilization of private capital to finance PPP projects, particularly in those infrastructure sectors in which financing requirements substantially exceed budgetary or internal resources. Risk mitigation instruments are financial instruments that transfer certain defined risks from project financiers (lenders and equity investors) to creditworthy third parties (guarantors and insurers) that have a better capacity to accept such risks. These instruments are especially useful when the public partner is not sufficiently creditworthy or do not have a proven track record in the eyes of private financiers to be
able to attract private investments without support. The advantages of such instruments are multifaceted (Matsukawa and Habeck 2007):

(a) The public sector is able to mobilize domestic and international private capital for infrastructure implementation, supplementing limited public resources.

(b) Private sector lenders and investors will finance commercially viable projects when risk mitigation instruments cover those risks that they perceive as excessive or beyond their control and are not willing to accept.

(c) Governments can share the risk of infrastructure development using limited fiscal resources more efficiently by attracting private investors rather than having to finance the projects themselves, assuming the entire development, construction, and operating risk.

Commonly used risk mitigation instruments include guarantees and insurance products (Matsukawa and Habeck 2007). Guarantees typically refer to financial guarantees of debt that cover the timely payment of debt service. Procedures to call on these guarantees in the event of a debt service default are usually relatively straightforward. In contrast, insurance typically requires a specified period during which claims filed by the insured are to be evaluated, before payment by the insurer. Examples of risk mitigation instruments available include (Matsukawa and Habeck 2007):

(a) Credit Guarantees, which cover losses in the event of a debt service default regardless of the cause of default (that is, both political and commercial risks are covered with no differentiation of the source of risks that caused the default).

(b) Political Risk Guarantees or Insurance, which cover losses caused by specified political risk events. They are typically termed Partial Risk Guarantees (PRGs), which may be termed as Political Risk Guarantees (PRGs), or Political Risk Insurance (PRI) depending on the provider.

Partial Risk Guarantees cover commercial lenders in PPP infrastructure projects. They typically cover the full amount of debt. Payment is made only if the debt default is caused by risks specified under the guarantee. Such risks are political in nature and are defined on a case-by-case basis. PRGs are offered by multilateral development banks (World Bank 2010d) and some bilateral agencies. Figure 1 provides an illustration of how a partial risk guarantee can apply to a highway concession contract. Mutatis mutandis, such illustration also applies to other infrastructure sectors.

Insert FIGURE 1 here Structure of a highway concession contract and World Bank guarantee.
Governments should seek to minimize the need for public financial support for infrastructure projects in order to maximize the benefits of concessioning relative to its costs. However, public financial support may be appropriate if it helps ensure the mobilization of large amounts of private capital. Governments involved in toll road projects should also seek to limit their contingent liabilities, such as minimum traffic and revenue guarantees, as well as their direct financial contributions.

Overall, the type and level of government financial contribution to the concession project should be limited to the extent required to attract private financing and promote a successful project. A commitment by the government to repay the project’s debt is called a government guarantee (Irwin 2005). If public financial support is appropriate, several mechanisms can be used to support private financing. Fishbein and Babbar illustrate, for the case of road projects (Fishbein and Babbar 1996: 26-27)

(a) **Equity guarantees**, under which the concessionaire is granted an option to be bought out by the government with a guaranteed minimum return on equity. Although equity guarantees entails no public cost as long as the project generates the minimum return on equity, the government essentially assumes all of the project risks, and the private sector performance incentives are severely reduced.

(b) **Debt guarantees**, under which the government provides a full guarantee or a cash-flow deficiency guarantee for repayment of loans. As in the above case, there is no public cost under this arrangement as long as sufficient cash flow is generated to service debt; the private sector performance incentives are also reduced.

(c) **Shadow toll**, which is paid to the concessionaire by the government, not charged to motorists, on the basis of volume and composition of traffic. The concept was created for DBFO (Design, Build, Finance and Operate) roads in the United Kingdom, and is also used in other countries (e.g., Finland, Portugal).

(d) **Availability fee or annuity**, which is paid to the concessionaire by the government based on the availability of required capacity (number of lanes), irrespective of the traffic volumes.

(e) **Minimum traffic or revenue guarantees**, in which the government compensates the concessionaire in cash if traffic or revenue falls below a specified minimum level (for example, 90 percent of the expected traffic volume). In Spain, for example, the compensation is based on 50% of the shortfall. Conversely, if revenues are higher than forecast, the concessionaire shares the surplus with the government also on a 50% basis.

In the case of the road sector, different forms of concession contracts, such as availability fee, shadow tolls, build-operate-transfer (BOT), and build-own-operate
(BOO), provide increased risk transfers to the private sector. In particular, under BOT and BOO the demand risks are borne by the private partner. A schematic representation of such risk transfers from the public sector to the private sector, for different forms of road concessions, is given in Figure 2. *Mutatis mutandis*, such schematic representation also applies to other infrastructure sectors.

The cost of public sector risk bearing is an important element to consider when evaluating PPP proposals and should be used in the evaluation of PPP programs. One of the key premises that should be considered using PPPs is the optimum allocation of project risks to the partner that is best able to manage them cost effectively. Consequently, to truly assess the impact of private sector involvement, governments need to adopt an approach to quantify the short-term impacts of the project on the public budget and the long-term potential cost of the risks the government chooses to retain (Aldrete et al. 2010).

**Insert FIGURE 2 here Schematic allocation of risks by forms of road concessions.**  
Source: Adapted from Queiroz (2006)

Greenfield PPP projects include investment in new construction by the concessionaire, while in maintenance/rehabilitation/operation (MRO) concessions the concessionaire agrees to assume responsibility for an existing facility (e.g., a road or part of a road network). Several concession options are available and each country should select the most appropriate for its specific needs. Through the most common forms of concession, a country can transfer to the private sector the responsibility to: (i) build, operate and transfer (BOT) back to the public sector (at the end of the concession period) a facility (for example, a motorway, bridge, tunnel), or (ii) maintain, rehabilitate, operate (MRO concessions) an existing facility.

When the main purpose of the concession is to obtain additional funds to those available in the country’s budget, or release limited public funds for use on other infrastructure facilities (for example, secondary and rural roads), shadow-tolls (whereby payment to concessionaires are made out of the budget, based on traffic volumes and classification) and availability fees (whereby payment to concessionaires are made out of the budget, based on lane availability) would not be feasible options, except insofar as they postpone the budgetary burden.

**GOOD GOVERNANCE IN PPP PROJECTS**

Because PPP projects in infrastructure tend to have monopolistic features, good governance in managing them is essential to ensure that the private sector’s involvement yields the maximum benefit for the public. Good governance in this case requires, inter alia (Queiroz and Izaguirre 2008), (i) competitively selecting the strategic private investor, (ii) properly disclosing relevant information to the public, and (iii) having a regulatory entity oversee the contractual agreements over the life of the concession.
The competitive selection of concessionaires, usually considered essential for economy and efficiency of the selection process, was discussed earlier in the chapter.

Full disclosure of concession agreements, an indication of good governance, helps ensure that the users know what to expect from the facility under concession, thus increasing transparency in the role of the regulator. Nevertheless, not all concession contracts are open to public scrutiny. Excuses range from a claimed need for confidentiality to the cost of photocopying (Economist 2007). In one country in Central and Eastern Europe, the main text of a concession agreement was published but key annexes including financial and technical obligations of the concessionaire were not open to the public. In a Latin American country, the full final draft of the concession agreements are published, but the signed version is kept confidential. As a result, potential last minute negotiations conducted behind closed doors between the successful bidder (i.e., the concessionaire) and the agency responsible for the project, if inserted in the contract, are not made available to the public or to the other contenders in the competitive bidding process (Queiroz 2009). Full disclosure, in every case, increases accountability of both the concessionaire and the regulator.

Many countries have established regulatory agencies that monitor the performance of infrastructure facilities under concession. For example in 2001 Brazil established the National Agency for Land Transport, which, inter alia, monitors federal road concessions (Brazil 2001).

Roads and other infrastructure concession contracts typically include required standards for construction, operation, maintenance, and toll (or fee) collection. For monitoring the quality of the facility during the life of the concession, several indicators of condition are usual. In the case of roads, such indicators include roughness, skid resistance, luminescence of pavement markings, and the presence and condition of signs, lighting, and other safety features. Performance on these indicators that falls outside the boundaries of acceptability may lead to penalties for the concessionaire. Enforcing such standards helps the government and the users to reap maximum benefits of road concessions.

CONCLUSIONS

This paper presented a review of the required legal framework for attracting private capital for PPP projects, PSC, possible steps for a country to launch a program of private participation in infrastructure, different forms of concessions, and the treatment of unsolicited proposals, risks, and government support. The paper also summarized the requirements for good governance in PPP projects. Because such projects in infrastructure tend to have monopolistic features, good governance in managing them is essential to ensure that the private sector’s involvement yields the maximum benefit for the public. Good governance in this case requires, inter alia, (i) competitively selecting the strategic private investor, (ii) properly disclosing relevant information to the public, and (iii) having a regulatory entity oversee the contractual agreements over the life of the concession. Seemingly non-legal issues, such as a risk matrix and procurement procedures, were also discussed because they are also relevant to an enabling legal PPP framework.
There has been so far relatively low private financing of roads and other infrastructure in transition and developing economies. The reasons for this include lack of appropriate legal framework, economic and political instability and consequent high perception of risks, and relatively low demand for infrastructure services. As appropriate legislation is enacted, institutions and economic growth become more sustainable, and there is higher demand for infrastructure (for example, traffic has increased substantially on key roads and corridors), it seems fair to expect that the sector will become more attractive to private investors. High economic growth figures dramatically reduce the demand risks faced by private sector investors, thus reducing the need for minimum revenue guarantees.

Nevertheless, appropriate legal structures are a key success factor. Promoting sound and well-functioning legal systems minimizes risks and assists the development of an attractive investment climate in a country.
ACKNOWLEDGMENTS

The authors benefited from comments by Piet Devries. This paper reflects only the authors’ views, and should be used and cited accordingly. The findings, interpretations, and conclusions are the authors’ own.
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FIGURE 1 Structure of a highway concession contract and World Bank guarantee.
Source: Adapted from Queiroz (2006)
FIGURE 2 Schematic allocation of risks by forms of road concessions.
Source: Adapted from Queiroz (2006)