

Public Private Partnerships
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Public Private Partnerships

Public Private Partnerships (PPPs or P3s) are contractual agreements between the public and private sectors wherein the private sector, in exchange for compensation, agrees to deliver facilities and services that have been or could be provided by the public sector. The private sector typically agrees to design, build, finance, operate, and/or maintain infrastructure assets necessary to deliver the services. PPPs can work for a range of infrastructures including transportation, water and sewer services, solid waste disposal, municipal parking and “social” infrastructure such as schools, hospitals, and other public buildings. Governments may choose a PPP option for a variety of reasons including a desire to accelerate long-overdue capital improvements, an inability to raise necessary capital or credit on their own, a lack of in-house expertise or resources, or a desire to ensure life-cycle maintenance and repair of facilities.

Typical PPP arrangements are generally grouped by the range of services provided. These arrangements distribute risk between the parties and the level of risk transfer for a selection of methods is depicted in Table 1.

- Design-Build (DB): The private sector designs and builds infrastructure to meet public sector performance specifications, often for a fixed price, so the risk of cost overruns is transferred to the private sector.
- Operation & Maintenance Contract (O & M): A private operator, under contract, operates a publicly-owned asset for a specified term. Ownership of the asset remains with the public entity.
- Design-Build-Finance-Operate (DBFO): The private sector designs, finances and constructs a new facility under a long-term lease, and operates the facility during the term of the lease. The private partner transfers the new facility to the public sector at the end of the lease term.
- Build-Own-Operate (BOO): The private sector finances, builds, owns and operates a facility or service in perpetuity. The public constraints are stated in the original agreement and through on-going regulatory authority.
- Build-Own-Operate-Transfer (BOOT or more commonly, BOT): A private entity receives a franchise to finance, design, build and operate a facility (and to charge user fees) for a specified period, after which ownership is transferred back to the public sector.

- **Buy-Build-Operate (BBO):** Transfer of a public asset to a private or quasi-public entity usually under contract that the assets are to be upgraded and operated for a specified period of time. Public control is exercised through the contract at the time of transfer.
- **Finance Only:** On behalf of the public entity, a private entity, usually a financial services company, funds a project directly or uses various mechanisms such as a long-term lease or bond issue.
- **Concession Agreement:** An agreement between a government and a private entity which grants the private entity the right to operate, maintain, and collect user fees for an existing publicly-owned asset in exchange for an up-front fee and sometimes a share of revenues. Although ownership usually does not transfer, certain rights of ownership may.

One of the attractive features of PPPs is that they can save significant time in the procurement process by consolidating many activities into a single solicitation. For example, instead of arranging financing, hiring a designer, soliciting construction bids, overseeing construction of the project, and ensuring maintenance and repair over its lifecycle, a PPP requires only the identification and retention of a qualified concessionaire. This can begin with a Request for Qualifications (RFQ) or other similar exploratory process to identify potential bidders and can save substantial time in the procurement process. Provided that an undue amount of time is not required to negotiate the contract documents, the value of this timesaving can be substantial on a large procurement.

Table 1. Distribution of Risk for Selected PPP Options

Type	Description	Risk Transfer
Design-Bid-Build (DBB)	Design and construction contracts awarded separately to private sector engineering and contracting firms	
Design-Build (DB)	Combines the design and construction phases into one fixed-fee contract	
Design-Build-Operate-Maintain (DBOM) Build-Operate-Transfer (BOT)	Selected contractor is responsible for the design, construction, operation, and maintenance of the facility for a specified time	
Design-Build-Finance-Operate (DBFO) Design-Build-Finance-Operate-Maintain (DBFMO)	Similar to DBOM, but contractor is also responsible for all or a major part of the project's financing	
Build-Own-Operate (BOO)	The private partner owns the facility and is assigned all operating revenue risk and any surplus revenues for the life of the facility.	

Value for Money

A major gate in the PPP decision process is the “value for money” (VfM) analysis. This exercise is intended to determine whether the “best” model for service provision is via public or private delivery. Although valuable input to the financial analysis, a very real limitation on VfM is that it fails to take into account social and other non-financial objectives that public sector policy makers must address. For example, if cost reductions (and higher VfM scores) are achieved by reducing the benefits paid to workers, eliminating subsidies to low-income customers, or cancelling services to communities, these financial savings would need to be balanced against social welfare objectives.

An important element of the VfM analysis is the relative cost of capital available to the public sector through tax-free municipal debt vs. the cost of commercial credit to the private sector. Although this difference may amount to several hundred basis points, in and of itself, this is not determinative. Factors to be considered in this regard are efficiencies that the private sector can bring to project delivery thereby reducing cost and whether it is politically and economically feasible for the public partner to issue debt. Voter resistance to additional debt, legislated debt limits, or concerns with credit ratings could reduce the viability of cheaper, tax-free debt. One of the underlying assumptions in any VfM analysis is that a viable public sector alternative actually exists. If this is not the case, a PPP may prove to be the only option regardless of the cost of capital.

The Role of Project Finance

The key to most PPP ventures is the use of a financial engineering tool known as project finance to structure a highly leveraged arrangement of debt and equity either to build and operate a new facility or pay for a concession to operate an existing one. Typically, the private partner will bring a fraction of the total cost of the project to the deal as its equity share - prior to the financial crisis this was often as little as 10% - and raise the remaining 90% through commercial loans and other credit sources. In exchange for the revenues produced by the infrastructure asset, a separate corporate entity or Special Purpose Vehicle (SPV) composed of architectural, engineering, construction, financing, and legal entities, is created to operate and maintain them on a non-recourse basis under a long-term concession agreement. That is, the private sector pledges only the revenue to be generated by the project as security for the debt. In the event that the project defaults or experiences other financial difficulties, the SPV alone is responsible; the parent organizations have no obligation to honor the debt or otherwise be accountable for the performance of the project. Due to the limited liability inherent in the SPV, even if projects experience serious financial difficulties, the potential loss of equity may not be sufficient to compel the private partner to prevent default. This is particularly true if the SPV is comprised of several private parties whose equity share might be quite small compared to the overall cost of the project. For example, the equity investment or “at risk” capital

of 5 equal-equity partners in a \$1 billion project could be as little as \$20 million. Although this is not a trivial amount, it does represent the upper bound on the financial risk faced by the private partners.

The potential for infrastructure to generate stable returns over the long term inspired many private investment banks to raise capital in the previous decade for their own infrastructure equity funds. These funds had been quite aggressive in seeking out potentially profitable projects and interest remains high despite the financial crisis. However, in light of increased financial scrutiny and the tightness and cost of commercial credit experienced since the crisis, a new global order for capital markets is still evolving. Some of the impacts on PPP include:

- New sources of capital
 - Commercial lending constrained
 - syndications stalled, more club deals, new players including pension funds and insurance companies
 - Local public banks have bigger role
 - More direct investment
- Lower debt equity ratios; 90/10 →70/30
- Shorter tenors
- More conservative structures, less risk tolerance
 - availability payments favored over tolls or direct user fees

How the Private Sector Gets Paid

Once the project has either been completed or passed other mutually agreed-upon milestones, the providers of the debt (senior and subordinate) and equity will need to be repaid. In the case of highway projects, the revenue to do this can take several forms. The most obvious, and often the most unpopular, source of revenue for PPP highway projects are tolls. However, there are alternatives to these direct user charges. Availability payments compensate the private partner for the time the facility is available for service in acceptable condition and can be funded from several sources such as gas, sales, or property taxes. “Shadow tolls” are calculated from actual or estimated vehicle counts and are paid by the governmental partner in lieu of direct charges to the user based on a predetermined pricing schedule. Funds for shadow tolls can come from the same sources as availability payments. For PPP projects other than highways, such as public buildings or facilities where a direct user charge is impractical, some form of availability payment is the usual means of compensation for the private partner. Regardless of the type of project, however, the public sector must identify a sustainable funding source to repay the private partner for its direct and indirect costs and a return on debt and equity capital over the life of the project.

Risk Management

One of the attractions of PPPs is their ability to allocate risks more efficiently between the public and private sectors. However, because PPP are subject to a broader range of risks than more routine procurements, the identification and management of these risks is at the core of the design of any PPP. In fact, one of the strongest arguments for the PPP delivery model is that the various project risks are transferred to the party best able to manage them. Some of the more common risks to a PPP project include:

- Political risks, such as the unanticipated change in government, cancellation of a concession, unanticipated tax increases, arbitrary toll or fee imposition or increases, or new and unilateral regulatory policies
- Construction risks, such as incorrect or inappropriate design, delays in land acquisition, environmental clearance, or escalation of land costs, project delays, unanticipated site or environmental conditions, or poor contractor performance
- Operation and maintenance risks, such as the physical condition of a concession facility, operator's incompetence, poor construction quality, etc.
- Legal and contractual risks, such as the concession warranty, or incomplete or inadequate contracts
- Income risks, such as inaccurate estimates of traffic volume or revenue, construction of a competing facility that would reduce use or profitability
- Financial risks, such as inflation, interest rate fluctuations, changes in monetary policies, highly leveraged positions, inability to refinance short term loans
- Force majeure, such as war, natural disasters, extreme weather condition, terrorism

Who actually bears each of these risks will be determined by whether they are entirely under the control of one party. For example, the government should bear the risk of future legislation discriminating against the project while the private partner should be expected to control construction risk. If neither party can accept full control, then risk allocation should be based on the price the private party will charge to take on the risk and whether the government is able and willing to pay that price. Many of the problems ascribed to PPPs are rooted in poor risk allocation such as when governments try to shift all of the usage or revenue risk for a new facility to the private party. This can be done, but then the private partner will set fees and returns accordingly which may require user charges that are too high to be sustainable. The key to risk management lies within the concept of partnership. If risk can be transparently identified, equitably allocated, and costed appropriately, successful projects will result. If the objective

is to just shift risk away from one party to the other, success will be more difficult to achieve.

Achieving Success in PPP Procurement

While there are many different factors that will influence the successful implementation of a PPP procurement, if the public and private partners are not in accord on certain key issues, failure is more likely to occur. For this reason, it is important to look first at why the different players are interested in PPP and what they hope to attain from the process. Table 2 summarizes some of the objectives sought through the use of PPP arrangements.

Table 2. Objectives of the PPP Process

Government wants	Investors want	The Public wants
<ul style="list-style-type: none"> • infrastructure to support economic growth and quality of life • minimum life-cycle costs • adequate & timely maintenance and repair • “off budget” capital improvements 	<ul style="list-style-type: none"> • steady, stable long-term return on capital • opportunity to take advantage of value “locked” in public assets • ability to use innovation to improve productivity and meet performance goals 	<ul style="list-style-type: none"> • Good, reliable service at a fair price

To achieve these objectives, some questions for the public sector to consider going forward include:

- What do we want to accomplish?
- What capabilities do we possess to achieve our objectives?
- What is the right mix of funding and financing approaches?
- What is reasonable and realistic to ensure efficiency and equity?
- Who controls the process; federal, state, local, or private interests?
- Who provides oversight?

From the standpoint of the private sector, important questions include:

- Will infrastructure meet investment objectives?
- Is there sustainable political commitment to the PPP process?
- Will commercial financing be available at a cost and tenor to enable project success?
- Can the risks delegated to the private sector be managed successfully?
- Are the elements of a successful project team available?

- Is the public partner an “educated owner” that understands the PPP process?

Summary

The PPP process is still in its beginning stages in the United States. Although many transportation PPPs have been implemented in the past several years and private participation in water and sewer services is a mature industry, there are many other opportunities for PPP procurement in the provision of other “public” services such as education, healthcare, and public buildings. PPP can be a valuable tool for procuring facilities if certain concerns are recognized and addressed. These include:

- Value for Money – making sure the desired services are provided at the same or less cost over the project lifecycle
- Adequate Revenue – PPPs are not free money; revenues from some source must be available to pay the private sector for its efforts
- Transparency – negotiating in open competition with details available for public scrutiny and accountability well defined
- Workforce Issues – concern that any PPP will be viewed as a pretext to lay off public employees
- Social Equity – making sure that all groups have equal access to basic services
- Risk Management – ensure that all parties assume responsibility for the risks they are best prepared to manage
- Accountability – holding both sides of the negotiation accountable for meeting contract provisions and pre-determined performance goals