Public Private Partnerships: Issues and Considerations

Practical Law Finance

A Note discussing public private partnerships (PPPs) including when they should be used to develop infrastructure projects. This Note also discusses the most commonly used PPP structures, alternatives to PPPs and how infrastructure projects (including those using a PPP structure) are typically financed.

When governments need to develop their physical and social infrastructure to provide necessary services to their citizens, they must decide how they will structure and finance it. They can do any of the following:

- Finance, manage and oversee the construction, operation and maintenance (O&M) of the project themselves while contracting out discrete aspects of the project to different private sector parties (see, for example, Design, Bid, Build (DBB) and Management Contracts).
- Sell the project outright to a private sector party (see Privatizations).
- Enter into a public private partnership (PPP or P3) agreement with a private sector party to perform all or material portions of the project.

Many governments do not want (or cannot afford) to assume full financial responsibility for their infrastructure projects. They may also lack the personnel and expertise necessary to develop and manage these projects. However, the privatization of the project may not be desired or appropriate (for example, for roads, highways and bridges or for assets that may have national security implications). As a result, some governments are pursuing the third option and are increasingly using PPPs to develop their infrastructure.

P3s are complex and raise many issues. A full discussion of all of these issues is beyond the scope of this Note. Rather, this Note is an introduction to some of the key issues PPPs raise. In particular, this Note:

- Describes the other methods governments often use to develop their infrastructure projects (see Alternatives to PPPs).
- Discusses the use of PPPs in the US (see PPPs in the US).
- Discusses the most commonly used PPP structures (see Types of PPPs).
- Describes the methods for compensating private sector parties for their participation in a PPP project (see Structuring Payments under a PPP Agreement).
- Explains how infrastructure projects (including PPP projects) are typically financed (see Financing an Infrastructure Project).

WHAT IS A PUBLIC PRIVATE PARTNERSHIP?

There are many ways in which the public and private sectors can cooperate to provide a public service. Some commentators use “PPP” to refer to all these relationships, including a standard contract to provide certain services for a fee. In addition, different jurisdictions define PPPs differently. For example, the US Department of Transportation considers government contracting out of O&M obligations to be a form of PPP. This Note uses a narrower definition of PPP that reflects the key reasons governments enter into PPP transactions and takes into account the distinctions between ordinary course government contracting and meaningful private sector participation (see Advantages of PPPs). Fundamentally, a PPP is a long-term contract between a government (the local or national government) or government-owned entity (hereinafter referred to as a public agency) and a private sector party (typically a consortium) in which:

- The public agency leverages the private sector party’s skills and assets to perform all or significant aspects of a project (for example, financing, design, construction and/or O&M).
- The public agency and the private sector party share in some fashion or another the risks and rewards of the project.
- The public agency retains some measure of control over the project (either through ownership of the project or contractual provisions binding the private sector party).
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PPPs can be used to:

- Construct or develop a wide range of physical and social infrastructure projects, including highways, power plants, bridges, prisons, pipelines, ports, waste treatment facilities, schools and hospitals.
- Modify, rehabilitate or expand existing infrastructure projects. When used for this purpose, the modification, rehabilitation or expansion is typically significant, requiring substantial new capital investment to justify the costs of structuring the project as a PPP.
- Monetize underperforming infrastructure assets to provide governments with much needed capital. When used for this purpose, the revenues the government earns from selling the right to operate the project (often referred to as a concession) must be sufficient to justify the PPP process and the loss of the project’s ongoing revenues.

Advantages of PPPs

Public agencies often prefer PPPs to other methods of infrastructure project delivery because of the advantages discussed below. However, depending on the project and the PPP structure used, not all of these advantages will be available.

Risk Transfer

PPPs allow public agencies to shift some or all of the risks of the project to the private sector party while retaining some measure of control over the project. Even in PPP structures in which the public agency is responsible for the financing, its liability is typically well defined and limited (see Types of PPPs).

The Only Way the Project is Constructed at All

Because of budget constraints and governments’ unwillingness and/or limited ability to raise taxes or incur debt to finance the project, the private sector party’s participation may be the only way a project is built or modified. Even in cases where the public agency makes payments to the private sector party, PPPs may be preferred because these payments are being made over time instead of all at once (see Availability Based PPPs and Shadow Toll Based PPPs).

Reduces Government Debt

US states and cities often issue tax exempt bonds to raise the revenues required to develop their infrastructure projects and it can take decades to repay these bonds (see Bond Proceeds). If the private sector party is responsible for financing the project, the public agency receives a completed project at the end of the agreement without having to make the significant capital investment that would otherwise be required.

Budget Relief

PPPs free up the public budget so that limited funds may be applied to another project or budget priority. Governments have limited resources and must decide on the projects that will receive financing. Depending on the PPP structure, the government can remove the project from the cost benefit analysis that invariably takes place.

Cost Savings

By having one entity responsible for all or significant parts of the project, the government can eliminate the costs of contracting with different parties and coordinating their rights and obligations. In addition, a private sector party that is responsible for designing, building, financing and operating the project will more likely consider the cost of the project over the term of the project or the PPP agreement instead of focusing on only its discrete part of the project.

Better Performing Assets

The private sector party typically incurs debt to finance the design and construction of the project and the revenues generated by the project are used to repay the debt. As a result, the private sector party has an incentive to ensure the project is built and performs well enough to repay the debt. A contractor who has been paid for its services and that has limited warranty obligations may not be as concerned with these issues.

Avoids Underbidding

In a traditional DBB structure, a public agency awards the design contract and construction contract following separate public bidding processes (see Design, Bid, Build (DBB)). Some bidders may propose a low bid to win the contract and then require the public agency to pay significant amounts to make any changes to the project’s design.

Shorter Construction Periods

Relying on public funding (whether a fuel tax, a budget allocation or government grants) may result in delays because the project may be put on hold pending the availability of these funds. For example, the Florida Department of Transportation estimated that it would need 25 years to make improvements to the Interstate 95 corridor if it used public funds because it does not have all the upfront capital the project needs. Using a combination of PPPs and other mechanisms, the project is now estimated to be completed in about eight years.

Technical Expertise

P3s allow public agencies to take advantage of the technical and professional expertise of the private sector. Some projects are highly technical and require specialized knowledge. Many governments, especially local governments, do not have the in-house expertise.

Minimizes Waste

Government contracts are often awarded to political cronies or for political reasons. The PPP contracting process is often more transparent than other types of public contracting because:

- PPP projects are typically conducted according to a statute that sets out the requirements for the project.
Public agencies generally conduct extensive due diligence and analysis to ensure that the PPP structure is the most appropriate for the project. Public agencies must often convince the public and politicians that the PPP structure would be an efficient use of public resources or assets, or both.

Better O&M of the Project
With government operated and managed projects, the public agency may have obtained or allocated the necessary funds to construct the project. However, the public agency may not have the funds or the expertise to properly operate and maintain the project on an ongoing and long-term basis.

Revenue Generation
In the case of PPPs entered into for asset monetization, PPPs provide the government with much needed capital. For example, in the Chicago Skyway project, the City of Chicago used $490 million of the $1.8 billion concession fee to redeem outstanding municipal debt and fund various city programs.

Disadvantages of PPPs
Some of the disadvantages of the PPP structure are set out below.

High Transaction Costs
Determining whether a PPP is appropriate for a particular project takes time and expense (see Value for Money (VfM) Analysis). In addition, the costs of negotiating and drafting the PPP project documents are significant. However, these costs can be managed by standardizing PPP procedures and agreements through P3 enabling legislation.

Higher Financing Costs
In many cases, a public agency can obtain financing at a lower interest rate (typically 2% to 3% lower) than private sector parties on the theory that a default by the government or a government-owned entity is less likely (these loans are often backed by the full faith and credit of the applicable government). However, this disadvantage may be outweighed by the advantages of this structure (such as lower costs over the whole life of the project and greater efficiency). In addition, the PPP may be structured so that the public agency obtains the financing (thereby possibly benefiting from the lower financing costs) while allocating many of the other risks (for example, construction cost overruns and raw material supply risks) to the private sector party (see, for example, Design, Build, Operate (DBO)). In addition, in certain jurisdictions, a government entity may be able to issue tax exempt bonds on behalf of the private sector party (see Financing an Infrastructure Project).

Loss of Operational Control
In many PPP structures, the government delegates significant control over the project to the private sector. However, PPP agreements typically give the public agency extensive monitoring and auditing rights to ensure the project is properly operated and managed.

Loss of an Ongoing Revenue Source
The public agency often forgoes the right to earn revenues on an ongoing basis from the public’s use of the project. However, depending on the project’s payment structure, the government might receive a lump sum payment when the PPP contract is entered into or a share in the project’s ongoing revenues. In any event, the lost revenues cannot be evaluated in a vacuum because the public agency often also forgoes the expense of operating and maintaining the project.

Higher User Fees
In asset monetization PPPs, the fees paid by the users may be higher than those they paid when the project was government operated and managed. This is because the private sector party needs to recoup the fee it paid for the concession and make a profit. For example, in the Indiana Toll Road project, it has been reported that user fees have increased by as much as 100% in some cases. However, these projects may be better maintained and operated. In addition, these fees can be managed by:

- Including restrictions in the PPP agreement regarding price increases.
- Making the bidding process more efficient. A high bid may be good in the short term, but if too high the private sector party may not be able to operate and maintain the project and repay the debt it incurred to pay the bid price. This may result in renegotiation of the PPP agreement or abandonment of the project (see Practice Note, Negotiating Concession Agreements for Public Infrastructure Projects (http://uslf.practicallaw.com/7-506-2112)).

When Should PPPs be Used?
PPPs are not appropriate for all projects. To determine whether a PPP is the best method for developing a particular infrastructure project, public agencies typically evaluate:

- Whether the proposed project will provide a service or benefit that is best provided by the government. The answer depends in part on the nature and location of the project, the expectations of the public and the political climate in which the public agency operates.
- The capital investment required to develop, operate and maintain the project. PPPs are typically appropriate for large-scale projects that involve significant capital investment that may be beyond the public agency’s capacity.
- Whether the public agency can afford to forgo the revenues it would receive if it operated the project.
- In the case of PPPs being entered into for asset monetization, the amount of the upfront payment the public agency will receive and the uses to which these funds will be applied. The fee can be used to retire debt, provide services and invest in other infrastructure projects.
- Whether the public agency has or will have the funds necessary to operate and maintain the project on an ongoing and long-term basis.
The technical and technological requirements of the project. If these are beyond the expertise of the public agency, it may be better to allocate the design and construction risk to a third party.

Whether a private sector party may be a more efficient service provider.

Whether operational controls can be established to monitor the private sector party to ensure that the service is provided properly to the public.

To assist the public agency in making this evaluation and in determining whether a PPP is a viable option, many public agencies also conduct a value for money analysis (see Value for Money (VfM) Analysis). In many jurisdictions, the PPP legislation requires this evaluation.

Value for Money (VfM) Analysis

A VfM analysis measures the relative costs of a project if it is developed using traditional public procurement methods versus a PPP structure to determine the best value for the public agency. This analysis is not simply a determination of the approach that is initially cheaper. Rather, it is a comparison of the costs and benefits of traditional government contracting versus the costs and expenses of a PPP structure over the life of the project. This comparison takes into account:

- The net present costs of the project over its entire useful life, including:
  - financing, design, construction and O&M costs; and
  - any payments the public agency may be required to make to the private sector party (see Availability Based PPPs and Shadow Toll Based PPPs).

- The risks that would be retained by the public agency, transferred to the private sector party, or shared between the two parties, including:
  - construction costs overruns;
  - higher than expected O&M costs;
  - demand risk (the risk that the public will not use the project to the extent required); and
  - collection risk (the risk that the project’s end users will not pay for the service).

- The net present value of the payments the public agency would receive from the private sector party or the project’s end users over the life of the project (for example, the fee for entering into the PPP agreement or ongoing royalties) if it operated the project.

- The skills and expertise the private sector party would bring to the project.

- The public’s ability to pay any user fees that may be required. In some PPP structures, the private sector party obtains third-party loans to finance the performance of its obligations under the PPP agreement. These user fees (taking into account the term of the agreement and a reasonable level of use) are typically calculated to enable the private sector party to repay these loans and other costs.

- Whether in the absence of private sector participation, the project would be developed at all.

- The residual value of the project at the end of the term of the PPP agreement.

ALTERNATIVES TO PPPS

Other than PPPs, governments can choose to deliver an infrastructure project by:

- Outsourcing certain services (see Service Contracts).
- Entering into management contracts for certain services (see Management Contracts).
- Entering into separate design and construction contracts (see Design, Bid, Build (DBB)).
- Selling the facility to a private sector party (see Privatizations).

As discussed above, there is no standard definition of PPP. Some commentators and jurisdictions use a broad definition that may include the structures discussed in this section. However, this Note uses a narrower definition of PPP that requires significant private sector participation and assumption of project risk.

Service Contracts

In this structure, the public agency contracts with a private sector party to provide specified services for the project (for example, operations and/or maintenance). These agreements are typically short term (one to three years) and involve no fixed asset investment by the private sector party. In exchange for providing this service, the private sector party receives a service fee. The public agency retains ownership and is responsible for all other aspects of the project (including higher than expected construction or O&M costs).

Management Contracts

In this structure, the public agency finances, designs and constructs the project, and enters into an agreement with a private party to operate, maintain and manage the project in exchange for a fee. These agreements are typically two to five years but may be longer for more complex projects. In certain cases, the private sector party may assume some commercial risks with respect to the O&M and management operations. The public agency retains ownership of the project and has responsibility for all other aspects of the project.

Engineering, Procurement and Construction Management Agreement (EPCM)

This is a professional services agreement between a consultant and the public agency pursuant to which the consultant provides the project’s design and manages the construction process on behalf of the public agency. For more information on this type of agreement, see Practice Note, Understanding Project Finance Construction Contracts (http://uslf.practicallaw.com/1-422-1870).
Design, Bid, Build (DBB)

In the DBB model, which is the traditional method of developing infrastructure in the US, the public agency contracts separately with different private sector parties following sequential public bidding processes for the design and construction of the project. The contractors’ warranty obligations under these contracts are often relatively short. As a result, if there is a defect in the design of the project that affects construction costs, the public agency may have to pay for the costs of correcting the defect. The public agency may be able to sue the project’s designer to recoup these costs but the claim may mature after the warranty period has expired or exceed of the designer’s warranty obligations. The public agency also bears the risk associated with the financing and O&M of the project.

Privatizations

In privatizations, the public agency sells the asset to the private sector party who is responsible for all aspects of the project. Although the asset is now fully privately owned, depending on the nature of the project or the service being rendered, the public may still hold the public agency ultimately accountable for the way the project is managed or the service is provided.

PPPs in the US

PPPs are used extensively worldwide but they are not used to the same extent in the US. According to a report in the Public Works Financing Newsletter, between 1985 and 2011, there were 377 PPP infrastructure projects in the US valued at approximately $68.4 billion. By contrast, PPP projects in Europe for the same period were valued at $353.3 billion. Historically, private companies were involved in the construction of roads and other infrastructure facilities, but their involvement declined in the last 50 years following the implementation of the federal Highway Trust Fund (HTF) to finance transportation infrastructure projects. (The HTF was set up under the Highway Revenue Act of 1956 (Pub. L. No. 84-627, 70 Stat. 374) and is funded using federal motor fuel, motor vehicle taxes, taxes on truck tires, sales of trucks and trailers, and heavy vehicle use.)

However, P3s are increasingly being used in the US (see Articles, US PPPs: Has the Long Awaited Surge Arrived? (http://usif.practicallaw.com/9-518-1661) and US PPPs: Trends and Developments from the Second Quarter of 2012 and Beyond (http://usif.practicallaw.com/9-520-1230)).

Resistance to PPPs in the US

There is a lot of resistance in the US to using PPPs. The reasons for this resistance include concerns that:

- Public assets would be operated by private parties who will not maintain them in order to maximize their profits. However, PPP agreements typically impose extensive O&M obligations on the private sector party. Some of these obligations include:
  - a detailed maintenance and repair schedule;
  - performance standards with which the private sector party must comply and methods for measuring and ensuring compliance;
  - the right of the public agency to approve the O&M operator selected by the private sector party;
  - setting up an O&M reserve account to ensure that funds are available to make necessary improvements and repairs;
  - the right of the public agency to audit and inspect the project facilities;
  - the right of the public agency to withhold payments to the private sector party following an event of default or to require payments from the project’s end users to be deposited in a segregated account; and
  - the right of the public agency to step in to operate the project and undertake repairs and charge the cost of these repairs to the private sector party (by deducting these amounts from fees owed or applying tolls received from the project’s end users depending on the fee structure, see Structuring Payments under a PPP Agreement).

- An asset of national security significance will be controlled by a foreign entity. However, mechanisms are in place to regulate foreign ownership of US assets (see Article, Clearing Foreign Investment in US Businesses through the Committee on Foreign Investment in the United States (http://usif.practicallaw.com/7-384-7097)).

- Transferring a project’s future revenues to the private sector disadvantages taxpayers who no longer benefit from these funds. This criticism can be offset if the public agency:
  - makes an effort to inform the public of the benefits of the project, including the funds it will receive from the private sector party; and
  - conducts a thorough and complete VfM analysis (see Value for Money (VfM) Analysis).

- Using the project will become more expensive (for example, the private sector party will increase tolls). However, PPP agreements typically include extensive provisions regarding user fees. For example, the agreement may:
  - provide that the user fees are fixed for a certain period of time after closing and thereafter subject to adjustments in accordance with the Consumer Price Index, a fixed percentage or other applicable index; or
  - require that any increases be approved by the government or implemented following a public comment period. It should be noted that many project participants resist this approach because of the time it takes and the potential of turning price increases into a political issue.

Notwithstanding these concerns, public agencies have in recent years increasingly turned to the PPP structure to meet their infrastructure needs because:
Of the dire state of US infrastructure. In 2013, the American Society of Civil Engineers reported that the US will need to invest $3.6 trillion to upgrade its transportation infrastructure (see Legal Update, The American Society of Civil Engineers Releases 2013 Report Card on US Infrastructure (http://uslf.practicallaw.com/5-525-3278)).

The HTF is insufficient to meet their infrastructure needs and an increase in these taxes is politically or economically impractical.

Budget constraints and other funding priorities prevent public agencies from using other sources of revenue to develop these projects.

National politicians have recognized the need to increase funding of, and encourage private investment in, the US’s public infrastructure system and have proposed various legislation to address this need (see Box, National Infrastructure Bank).

States have also responded to the infrastructure crisis by implementing PPP enabling legislation. As of July 2013, 33 states plus Puerto Rico have implemented some form of PPP enabling legislation and PPP legislation is pending in several others. The scope of this legislation varies widely from one state to another including with respect to:

- The projects that can be the subject of a PPP agreement.
- The PPP structures that can be used.
- Whether a ViM analysis is required and, if so, the extent of that analysis.

According to a report by the Brookings Institute, between 1989 and 2011, there were 104 PPP transportation projects in the US. However, most of these projects are concentrated in a few states. Five states (California, Florida, Colorado, Virginia and Texas) were responsible for 56% of the total number of all PPP transportation projects (see Moving Forward on Public Private Partnerships: U.S. and International Experience with PPP Units, Brookings Institute and Rockefeller Foundation, 2011).

Counsel engaged in a PPP transaction should carefully review the applicable legislation. If the public agency is a city or other local jurisdiction, counsel should also make sure they understand any applicable municipal or county ordinance or other authority under which the project is being implemented. This is because where PPP legislation has not been implemented, many local jurisdictions have broad authority to engage in these transactions under constitutional home rule powers or otherwise (for example, the $1.8 billion lease and operation of the Chicago Skyway project by the City of Chicago was developed pursuant to municipal ordinance in the exercise of its home rule authority).

For more information on PPPs and infrastructure projects in the US, see Articles, US PPPs: Has the Long Awaited Surge Arrived? (http://uslf.practicallaw.com/9-518-1661) and US PPPs: Trends and Developments from the Second Quarter of 2012 and Beyond (http://uslf.practicallaw.com/9-520-1230).

### Government Financing of Infrastructure Projects in the US

If a public agency decides to either be primarily responsible for the infrastructure project by contracting with private parties for discrete parts of the project (see Service Contracts or Design, Bid, Build (DBB)) or use a PPP structure that allocates financing of the project to the public agency (see, for example, Design, Build, Operate (DBO) or Build, Own, Operate, Transfer (BOOT)), they can use:

- Tax revenues (see Tax Revenues);
- Bond proceeds (see Bond Proceeds);
- Commercial bank loans (see Commercial Bank Loans); and/or
- Grants from the national government (see Grants).

### Tax Revenues

States often use dedicated tax revenues (state fuel, motor vehicle and motor carrier taxes in the case of infrastructure projects) or general public funds to build infrastructure projects. These revenues are often insufficient, however, to meet the state’s infrastructure needs and raising taxes may not be politically or economically viable.

### Bond Proceeds

State and city governments are able to issue tax exempt bonds to finance infrastructure projects. This financing mechanism has several drawbacks, however, including:

- Although the bond proceeds may be sufficient to design and construct the project, they may not be enough to pay for the project’s ongoing O&M costs. In addition, though the public agency receives revenues from the public for using the project (for example, tolls or electricity payments), these revenues are used to repay the bondholders. They may also be used to pay for other government priorities.
- There may not be sufficient investor appetite for the amount of funding the project requires.
- The bond documents may impose limitations that raise budget and policy issues for the applicable public agency.
- There may also be limits (constitutional or budgetary) as to the amount of debt the public agency can incur.

### Commercial Bank Loans

Governments do not use commercial bank loans as often to finance their infrastructure projects because:

- These loans are usually made on a short-term basis and the construction periods of infrastructure projects are typically longer. The public agency may obtain construction only loans but they would bear the risk of refinancing and taking out these loans with more permanent financing in line with the project’s revenue flow.
- Loan agreements typically include extensive affirmative, negative and financial covenants to which a public agency may not want to be subject.
- Similar to bonds, the government may be subject to debt incurrence restrictions.
Grants
States receive funds from the federal government to finance their infrastructure projects under the Moving Ahead for Progress in the 21st Century Act (MAP–21). Among other things, this Act increases funding available under the Transportation Infrastructure Finance and Innovation Act program from $122 million per year to $750 million in fiscal year 2013 and to $1 billion in fiscal year 2014. This was the first significant federal infrastructure legislation since the expiration in 2009 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). For more information on this Act, see Legal Update, President Obama Signs Comprehensive Infrastructure Bill (http://usf.practicallaw.com/1-520-1639).

Other proposals have been made by national politicians to provide funds to develop infrastructure (see Box, National Infrastructure Bank).

**TYPES OF PPPS**

There are many PPP structures and the structure used for any particular project depends on:

- The functions (design, construction, financing, operation and/or maintenance) the private sector party will perform and the risks it will assume.
- Whether the project is a new build or a modification or monetization of an existing facility.
- The degree of operational control the public agency wants to have over any aspect of the project.
- The nature of the project. If the project involves an asset important to national sovereignty or security or a service that is viewed as a core responsibility of the government, the PPP may be structured to allow the private sector party to lease or operate the project but never own it.
- Whether the private sector party will own the project assets at any time during the term of the agreement.
- Whether the project will have any residual value at the end of the agreement.
- The terms of any PPP enabling legislation. Some legislation specifies the projects that are eligible for the PPP structure and type of PPP that can be used.

Set out below is a discussion of the most common PPP structures. There are no universally accepted definitions for these terms and different terms are often used to refer to the same structure depending on the jurisdiction. When reviewing and drafting PPP enabling legislation and agreements, counsel should not focus on the title of these agreements or how they are described but rather on the specific obligations and risks assumed by the private sector party.

In many of the structures discussed below, the public agency is responsible for financing the project’s construction. The scope of the public agency’s liability in these structures is generally different, however, than in non-PPP structures (whether service contracts or DBB). For example, in non-PPP structures, the public agency is generally responsible for all construction costs including any costs overruns. In addition, the public agency may also have to pay to correct any design or construction defects (see Design, Bid, Build (DBB)). As a result, the public agency cannot be sure of the extent of its financial exposure. This is especially an issue if the public agency is relying on limited tax revenues or grants to pay these costs. The public agency has a better sense of its financial exposure in a PPP project because the amount it pays to the private sector party to construct the project is typically determined in advance and is generally fixed. If additional funds are required to complete construction, the private sector party is typically required to make up the shortfall. As a result, private sector parties often use project financing to finance the construction of the projects because some of these risks can be allocated to a contractor, an O&M operator or another project participant (see Financing an Infrastructure Project).

**Design, Build (DB)**

The design, build is the most basic of the PPP structures (and the most commonly used in the US) and allocates the fewest obligations and risks to the private sector party. In this structure:

- The private sector party designs and constructs the project for a fixed fee payable by the public agency.
- The public agency is responsible for financing but saves the costs and time of entering into separate contracts.
- The public agency owns the asset and is responsible for O&M. The public agency can either enter into an O&M agreement with a private sector party or do the O&M using internal resources.

**Design, Build, Operate (DBO)**

This structure is similar to the DB structure, except that the private sector party also operates the project. Operating a large-scale project often requires a lot of technical expertise and significant investment in personnel. This structure enables the public agency to shift this responsibility to the private sector party. The public agency is responsible for financing the project’s construction and for its maintenance.

**Design, Build, Maintain (DBM)**

This structure is similar to the DB structure, except that the private sector party also maintains the project. The public agency pays an agreed amount for these services and if more funds are required, it is typically the responsibility of the private sector party. Maintenance of the project can be expensive and being able to shift responsibility for repairs to the private sector party can result in significant cost savings to the public agency. In addition, knowing that it will be responsible for maintaining the project may result in the project being built to a higher standard to reduce maintenance costs.
Design, Build, Operate, Maintain (DBOM)
In this structure, the private sector party is responsible for (and bears the risks associated with) the design, construction and O&M of the project. The public agency maintains ownership and is responsible for financing the construction of the project. The private sector party may be paid from the project’s end users or the public agency (see Structuring Payments under a PPP Agreement). The advantage of this structure over the DBO and DBM structures is that both operations and maintenance of the project are already provided for. In cases where the public agency is responsible for either or both of these, it may not have the funds available in its annual budget to do so, resulting in the project falling into disrepair.

Design, Build, Finance, Operate (DBFO)
This structure is similar to the DBO structure except that the private sector party is also responsible for financing the project. Title to the project remains with the public agency. The private sector party may be paid by the public agency or from fees collected from the project’s end users (see Structuring Payments under a PPP Agreement).

Design, Build, Finance, Operate, Maintain (DBFOM)
Under this structure, the private sector party is responsible for designing, building, financing, operating and maintaining the project for a specified period. In this structure, the project is owned by the public agency. The private sector party may be paid by the public agency or from fees collected from the project’s end users (see Structuring Payments under a PPP Agreement).

Design, Build, Finance, Operate, Maintain, Transfer (DBFOMT)
This structure is similar to the DBFOM model, except that the private sector owns the asset for the term of the PPP agreement after which ownership, operations and maintenance are transferred to the public agency.

Build, Operate, Transfer (BOT)
In a BOT structure, the public agency grants to a private sector party the right to construct a facility according to agreed design specifications and to operate the project for a specified time. The private sector party does not own the project. In exchange for assuming these obligations, the private sector party receives payment from the public agency or the project’s end users. In some cases, the private sector party may provide some of the financing for the project. At the end of the contract period, operation of the project is transferred to the public agency. However, the public agency can elect to renew the PPP agreement with the private sector party.

One difference between this structure and any of the structures in which the private sector party also designs the project is liability for the design risk. Because the public agency was either involved in determining the design or provided the design for the project, it bears some or all of the liability for any design flaws.

Build, Transfer, Operate (BTO)
The BTO structure is very similar to the BOT structure except that:
- O&M of the project is transferred to the public agency after construction.
- Following the transfer of the project to the public agency, the private sector party and the public agency enter into agreement where the private sector party operates the project for a specified period.

Build, Own, Operate, Transfer (BOOT)
This structure is similar to the BOT structure except that the private sector party owns the asset during the term of the PPP agreement. This structure may be used when ownership of the project by a private sector party does not raise any national security, political or cultural concerns. Similar to the BTO structure, the private sector party may provide some or all of the financing for the construction project.

Build, Own, Operate (BOO)
In the BOO structure, the private sector party constructs (in accordance with agreed design specifications), owns, operates and maintains the project for the term of the agreement. In exchange for assuming these risks, the private sector party receives payments from the public agency or the project’s end users. The public agency may elect to purchase the project at the end of the term, but it is under no obligation to do so. This structure may be used if the project has residual value at the end of the term of the PPP agreement (for example, the facility may be used for alternative purposes by a private entity).

In the US, a BOO transaction may qualify for tax exempt status as a service contract if the applicable requirements of the Internal Revenue Code are satisfied.

Lease, Develop and Operate
In this model, which is typically used for existing or brownfield projects, the private sector party leases an existing facility from a public agency, invests its own capital to renovate, modernize and/or expand the facility. Then, the private sector party operates and maintains the project under a contract with the public agency. In exchange for assuming these obligations, the private sector party is typically entitled to receive payments from the public for use of the facility. This may be used when vesting title to the assets in the private sector party for any period may be not appropriate or desired.

Concessions
In a concession, the public agency sells to a private sector party the right to operate and maintain an existing project for a specified time which can be for as long as 99 years (for example, the $1.8 billion Chicago Skyway project has a concession term of 99 years and the $3.8 billion Indiana Toll Road project has a concession term of 75 years). In exchange for operating and maintaining the project, the private sector party is entitled to receive payments from the end users of the project (for example, tolls). In this structure, the public agency continues to own the project assets and control of the project reverts to it at the end of the concession term.
STRUCTURING PAYMENTS UNDER A PPP AGREEMENT

The payments the private sector party receives for performing its obligations under the agreement may be structured several ways. The payment structure used depends on:

- The party who will assume the demand and collection risks (see Value for Money (VfM) Analysis).
- The amount of the tolls or user fees rates, including whether the public can be required to pay these fees.

The private sector party may be paid:

- A fixed fee by the public agency once the project is ready and available for use (see Availability Based PPPs).
- A variable fee by the public agency based on the public’s usage of the facility (see Shadow Toll Based PPPs).
- A fee by the project’s end users (see User Fee PPPs).
- A combination of any of the above.

This section provides an introduction to the issues raised by the different payment arrangements PPPs can include. For a more detailed discussion of these structures and the issues to consider when structuring and drafting the payment provisions, see Practice Note, Negotiating Concession Agreements for Public Infrastructure Projects (http://uslf.practicallaw.com/7-506-2112).

Availability Based PPPs

In this fee structure, the public agency makes payments to the private sector party once the project or facility is available for use (subject to compliance with the agreed performance criteria and standards). The public agency bears the demand and collection risks under this structure because the amount it pays to the private sector party does not change even if the project is not used to the extent anticipated. The public agency may be able to offset the availability fee with user fees received from the public. However, whether or not it actually collects these fees has no effect on its payment obligations to the private sector party. As a result, this fee structure relies (and can impose significant pressure) on the public budget. However, paying availability fees over the life of the project may be preferable to making the capital investment necessary to build the project.

Although demand risk is not an issue for the private sector party, this structure does raise other concerns, including:

- If budget approval is required for the public agency to make the availability payments, is there a risk that such approval may not be given in a timely manner or at all?
- Is there a likelihood that the public agency may breach its obligations under the agreement? Depending on the location of the project, the private sector party should consider obtaining political risk insurance (see Practice Note, Political Risk Insurance: Is it Necessary? (http://uslf.practicallaw.com/5-503-9151)).
- What is the likelihood that the government will become unable to pay its debts?

- If the public agency is a government owned entity, are its obligations guaranteed by the government?
- How is availability defined? If the project must be taken out of service because of a force majeure event, for repair or at the request of the public agency, what obligations does the public agency have to make these payments?

Shadow Toll Based PPPs

Typically used for transportation projects, shadow tolls are per vehicle amounts paid to the private sector party by the public agency and not the users of the facility. This is used when it may not be feasible for the road to include toll facilities. The more the road is used, the higher the payments the public agency is required to pay to the private sector party. These payments can, therefore, impose a significant burden on the public agency’s finances. In this structure, the private sector party and the public sector share the demand risk.

This structure raises the same issues discussed above (see Availability Based PPPs). In addition, the private sector should take steps to ensure that:

- The project is used as expected.
- The government does not construct a competing project that may reduce demand.
- The government does not adopt legislation (for example, zoning changes) that reduce demand.
- Use of the project can be independently verified.

User Fee PPPs

In this structure, the end users pay the private sector party for the use of the facility (for example, tolls). As a result, the private sector party bears the demand and collection risks. To mitigate these risks, private sector parties:

- Conduct extensive traffic and other applicable studies to determine the reasonable level of use that can be expected.
- Require the public agency to agree not to build a competing project or implement legislation that may adversely affect demand.
- May require that the public agency guarantee a certain level of use and make payments to the private sector party if such minimum amount is not achieved.
- Include in the PPP agreement extension or renewal provisions to allow the private sector party sufficient time to recoup its investment and earn a return.

FINANCING AN INFRASTRUCTURE PROJECT

Private sector parties can finance their obligations under PPP agreements using:

- Equity. The members of the consortium contribute a portion to the project company. However, equity is an expensive and risky method of financing large-scale projects.
Public Private Partnerships: Issues and Considerations

- **Balance sheet financing.** In this case, the lenders rely on the consortium members’ financial statements to make its credit decisions. Typically, the lenders impose a variety of covenants and restrictions to ensure that their financial condition does not change materially following the closing of the loans. However, the consortium members may be unwilling or unable to comply with these restrictions. Moreover, they may not have the capacity to incur the amount of debt the project needs.

- **Private activity bonds** (PABs). Formerly known as Industrial Development Bonds, these are bonds that are issued by a government entity on behalf of a private entity for projects that benefit the public. While they are issued by the government entity, the private sector party is the obligor under these bonds. These bonds offer many benefits, including:
  - Exemption from federal income taxation.
  - Lower interest rates than that the private sector party would otherwise receive.
  - Longer maturities.

Projects that can qualify for PABs include surface transportation projects. As of May 10, 2013, the US Department of Transportation has approved almost $4.4 billion in PAB allocations and about $3.8 billion in PABs have been issued. Some of the projects that have issued PABs include the East End Crossing, Ohio River Bridges project and the Downtown Tunnel/Midtown Tunnel in Virginia.

- **Project financing.** The preferred method for financing PPP projects is project financing. In this case, the lenders rely on the revenues generated by the project (the fees paid by the end users or the public agency, as applicable) for repayment of the debt. For more information on this type of financing, see *Practice Note, Project Finance: Overview* (http://uslf.practicallaw.com/7-382-7004).

**Benefits of Project Financing**

Project financing is often used to finance a PPP project because of:

- **Risk allocation.** The private sector can allocate many of the risks it assumes under the PPP agreement (for example, design, construction and O&M costs) to various project participants. For more information, see Practice Notes:
  - *Identifying and Managing Project Finance Risks* (http://uslf.practicallaw.com/9-382-9356);
  - *Understanding Project Finance Construction Contracts* (http://uslf.practicallaw.com/1-422-1870); and

- ** Longer loan maturities.** Project loans are usually made on a long-term basis (including short-term commercial loans that are expected or required to be refinanced). This allows enough time for the project to generate the revenues needed to repay the loans (see *Practice Note, Advantages and Disadvantages of Project Financing* (http://uslf.practicallaw.com/0-382-8846)).

**Issues to Consider**

In a typical project financing, the project company (in a PPP transaction, the special purpose entity through which the private sector party is entering into the transaction) pledges to the lenders all of the project assets and all of its rights under the project documents as security for the debt. In addition, the lenders often have the right to step in and take control over certain aspects of the project following a default by the project company or the project sponsor (see *Practice Notes, Project Finance Overview* (http://uslf.practicallaw.com/7-382-7004) and *Identifying and Managing Project Finance Risks* (http://uslf.practicallaw.com/9-382-9356)). However, depending on the nature and structure of the PPP transaction, this may not be possible. For example:

- If the project company does not own any of the physical assets (in other words, the road, highway or bridge) including any improvements that may have been made, the collateral package is limited to the project company’s rights under the project documents, its financial assets and the capital stock of the project company.

Even if the project assets are owned by the project company and, therefore, capable of being pledged to the lenders, there may be limitations on the rights and ability of the lenders to foreclose on the physical assets (for example, the lenders may need government approval before they can sell airport assets or port facilities to the highest bidder).

The PPP transaction must also be financeable. For example:

- The payments the project company receives (whether from the public agency or the project’s end users) must be sufficient to repay the project loans.

- The term of the PPP agreement should be long enough (or include renewal or extension provisions) to allow the private sector party to recoup its investment.

- The risks of the project must be manageable. For example, in PPP structures in which the private sector party is responsible for the financing of the project, the public agencies want assurances that the private sector party will have the funds to perform its obligations under the PPP agreement. However, in some cases the public agency and the private sector party may negotiate the PPP agreement before the financing is in place.

If so, the PPP agreement should be negotiated to reflect the concerns the lenders may have. These concerns include:

- Ensuring the payment structure is reliable, consistent and sufficient to repay the debt;

- Protections against governmental actions (for example, expropriation and regulatory takings) that may undermine the lenders’ rights in the project. Where appropriate, including a stabilization clause in the PPP agreement may address this concern (see *Practice Note, Understanding Stabilization Clauses in International Investment Agreements* (http://uslf.practicallaw.com/1-501-7863)); and

- Contemplating a direct agreement between lenders and the public agency under which the public agency acknowledges the lenders’ interest in the PPP agreement and agrees that the lenders may step into the shoes of the private sector party under certain circumstances.
NATIONAL INFRASTRUCTURE BANK

US politicians recognize the need to invest in the country’s infrastructure and that tax revenues are insufficient. To increase investment in US infrastructure and to leverage private sector participation in these projects, several bills have been proposed over the years to create a bank or government agency that would provide some of the financing for these projects. President Obama has repeatedly called in his budgets for a bank that would provide loans, loan guarantees, and grants for eligible transportation infrastructure projects. However, despite the recognized need for infrastructure financing in the US, none of these proposals have gained much traction.

STATE INFRASTRUCTURE BANKS

State infrastructure banks (SIBs) are revolving infrastructure investment funds for surface transportation projects that are established and administered by the states. SIBs offer a range of loans and credit assistance enhancement products to public and private sponsors of eligible infrastructure projects. SIBs are capitalized with Federal transportation funds and matching State funds, although several states (including Florida, Georgia, Kansas, Ohio and Virginia) have established SIBs or separate SIB accounts capitalized solely with state funds. As of July 2013, 33 states plus Puerto Rico have an infrastructure bank or a state revolving fund.

For more information, search for the following resources on our website.

Practice Note: Overview
- Project Finance: Overview (http://uslf.practicallaw.com/7-382-7004)

Practice Notes
- Expropriation in international investment law (http://uslf.practicallaw.com/5-384-7442)
- Identifying and Managing Project Finance Risks (http://uslf.practicallaw.com/9-382-9356)
- Negotiating Concession Agreements for Public Infrastructure Projects (http://uslf.practicallaw.com/7-506-2112)
- O&M Agreements: Issues to Consider (http://uslf.practicallaw.com/2-506-2119)
- Understanding Project Finance Construction Contracts (http://uslf.practicallaw.com/1-422-1870)

Checklist
- Project Finance Checklist (http://uslf.practicallaw.com/9-500-4687)

Articles
- Public private partnerships: an answer to the infrastructure needs of the United States (http://uslf.practicallaw.com/5-503-8571)
- US PPPs: Trends and Developments from the Second Quarter of 2012 and Beyond (http://uslf.practicallaw.com/9-520-1230)

For the links to the documents referenced in this note, please visit our online version at http://us.practicallaw.com/3-504-9995

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