THE DIFFERENT TYPES OF AND ECONOMICS BEHIND PUBLIC-PRIVATE PARTNERSHIP.

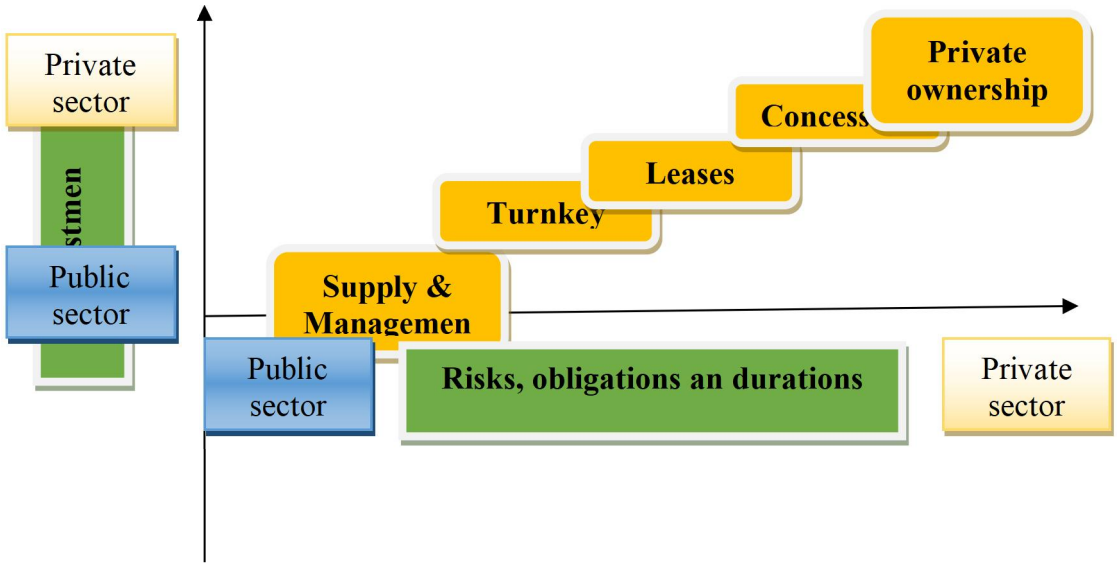
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A wide spectrum of PPP models has emerged. These models vary mainly by:
- Ownership of capital assets;
- Responsibility for investment;
- Assumption of risks; and
- Duration of contract.

The PPP models can be classified into five broad categories in order of generally (but not always) increased involvement and assumption of risks by the private sector. The five broad categories are:
- Supply and management contracts
- Turnkey contracts
- Affermage/Lease
- Concessions
- Private Finance Initiative (PFI) and Private ownership.

The basic features of these five categories of PPP models are shown in figure 1.



1-figure. Basic features of PPP models

Each of these five categories has many variants. A categorization of the PPP/PSP models together with their aim characteristics is shown in table below. While the spectrum of models shown in the table are possible as individual options, combinations are also possible such as, a lease or (partial) privatization contract for existing facilities which incorporates provisions for expansion through Build-OperateTransfer. In fact, many PPP projects of recent times are of combination type.

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Table 1. Classification of PPP models

Broad category	Main variants	Ownership of capital assets	Responsibility of investment	Assumption of risk	Duration of contract (years)
Supply and management contract	Outsourcing	Public	Public	Public	1-3
	Maintenance management	Public	Public/Private	Private/Public	3-5
	Operational managemen	Public	Public	Public	3-5
Turnkey		Public	Public	Private/Public	1-3
Affermage/ Lease	Affermage	Public	Public	Private/Public	5-20
	Lease*	Public	Public	Private/Public	5-20
Concessions	Franchise	Public/Private	Private/Public	Private/Public	3-10
	BOT**	Public/Private	Private/Public	Private/Public	15-30
Private ownership of assets and PFI type	BOO/DBFO	Private	Private	Private	Indefinite
	PFI***	Private/Public	Private	Private/Public	10-20
	Divestiture	Private	Private	Private	Indefinite

* Build-Lease-Transfer (BLT) is a variant.

** Build-Operate-Transfer (BOT) has many other variants such as Build-Transfer-Operate (BTO), Build-OwnOperate-Transfer (BOOT) and Build-Rehabilitate-Operate-Transfer (BROT).

*** The Private Finance Initiative (PFI) model has many other names. In some cases, asset ownership may be transferred to, or retained by the public sector.

Supply and management contracts

A management contract is a contractual arrangement for the management of a part or whole of a public enterprise (for example, a specialized port terminal for container handling at a port or a utility) by the private sector. Management contracts allow private sector skills to be brought into service design and delivery, operational control, labour management and equipment procurement. However, the public sector retains the ownership of facility and equipment.

The private sector is assigned specified responsibilities concerning a service and is generally not asked to assume commercial risk. The private contractor is paid a fee to manage and operate services. Normally, the payment of such fees is performance-based. Usually, the contract period is short, typically

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three to five years4. But the period may be longer for large and complex operational facilities such as a port or an airport.

Pros:	Cons:
Can be implemented in a short time.	Efficiency gains may be limited and little incentive for the private sector to invest.
Least complex of all PPP models.	Almost all risks are borne by the public sector
In some countries, politically and socially more acceptable for certain projects (such as water projects and strategic projects like ports and airports).	Applicable mainly to existing infrastructure assets.

Turnkey

Turnkey is a traditional public sector procurement model for infrastructure facilities. Generally, a private contractor is selected through a bidding process. The private contractor designs and builds a facility for a fixed fee, rate or total cost, which is one of the key criteria in selecting the winning bid. The contractor assumes risks involved in the design and construction phases. The scale of investment by the private sector is generally low and for a short-term. Typically, in this type of arrangement, there is no strong incentive for early completion of the project. This type of private sector participation is also known as Design-Build.

Pros:	Cons:
Well understood traditional model.	The private sector has no strong incentive for early completion.
Contract agreement is not complex.	All risks except those in the construction and installation phases are borne by the public sector.
Generally, contract enforcement is not a major issue.	Low private investment for a limited period.

Affermage/Lease

In this category of arrangement, the operator (the leaseholder) is responsible for operating and maintaining the infrastructure facility (that already exists) and services, but generally the operator is not required to make any large investment. However, often this model is applied in combination with other models such as buildrehabilitate-operate-transfer. In such a case, the contract period is generally much longer and the private sector is required to make significant investment. The arrangements in an affermage and a lease are very similar.

In the affermage/lease types of arrangements, the operator takes lease of both infrastructure and equipment from the government for an agreed period of time. Generally, the government undertakes the responsibility for investment and thus bears investment risks. The operational risks are transferred to the operator. However, as part of the lease, some assets also may be transferred on a permanent basis for a period which extends over the economic life of assets. Fixed facilities and land are leased out for a longer

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period than for mobile assets. Land to be developed by the leaseholder is usually transferred for a period of 15-30 years.

Pros:	Cons:
Can be implemented in a short time.	Has little incentive for the private sector to invest, particularly if the lease period is short.
Significant private investment possible under longer term agreements	Almost all risks are borne by the public sector
Generally, contract enforcement is not a major issue.	Generally used for existing infrastructure assets
In some countries, legally and politically more acceptable for strategic projects like ports and airports.	Considerable regulatory oversight may be required.

Concessions

In this form of PPP, the government defines and grants specific rights to an entity (usually a private company) to build and operate a facility for a fixed period of time. The government may retain the ultimate ownership of the facility and/or right to supply the services. In concessions, payments can take place both ways: concessionaire pays to government for the concession rights and the government may pay the concessionaire, which it provides under the agreement to meet certain specific conditions. Usually, such payments by the government may be necessary to make projects commercially viable and/or reduce the level of commercial risk taken by the private sector, particularly in a developing or untested PPP market. Typical concession periods range between 5 to 50 years.

Private Finance Initiative (PFI)

In the private finance initiative model, the private sector remains responsible for the design, construction and operation of an infrastructure facility. In some cases, the public sector may relinquish the right of ownership of assets to the private sector.

In this model, the public sector purchases infrastructure services from the private sector through a long-term agreement. PFI projects, therefore, bear direct financial obligations to the government in any event. In addition, explicit and implicit contingent liabilities may also arise due to loan guarantees provided to the lenders and default of a public or private entity on non-guaranteed loans. A PFI project can be structured on minimum payment by the government over a fixed contract tenure, or minimum contract tenure for a fixed annual payment, or a combination of both payment and tenure.

In the PFI model, asset ownership at the end of the contract period is generally transferred to the public sector. Setting up of a Special Purpose Vehicle (SPV) may not be always necessary (see discussion on SPV in the following section). A PFI contract may be awarded to an existing company. For the purpose of financing, the lenders may, however, require the establishment of an SPV. The PFI model also has many variants.

Pros:	Cons:
Private sector may bear a significant share of the risks.	Complex to implement and manage the contractual regimes.
High level of private investment.	Government has direct financial liability.

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Potential for efficiency gains and innovation is high.	Generally used for existing infrastructure assets
Attractive to private investors in an untested or developing PPP market.	Negotiation between parties may require long time.
Most suitable for social sector infrastructure projects (schools, dormitories, hospitals, community facilities, etc.).	Contingent liabilities on the government in the medium and long term.

In a PFI project, as the same entity builds and operates the services, and is paid for the successful supply of services at a pre-defined standard, the SPV / private company has no incentive to reduce the quality or quantity of services. This form of contractual agreement reduces the risks of cost overruns during the design and construction phases or of choosing an inefficient technology, since the operator's future earnings depend on controlling the costs.

Which model to select? The answer to this question needs careful assessment of many things. Each model has its own pros and cons and can be suitable for achieving the major objectives of private-private partnership to a varying degree. Special characteristics of some sectors and their technological development, legal and regulatory regimes, and public and political perception about the services in a sector can also be important factors in deciding the suitability of a particular model of PPP. There is no single PPP model that can satisfy all conditions concerning a project's locational setting and its technical and financial features. The most suitable model should be selected taking into account the country's political, legal and sociocultural circumstances, maturity of the country's PPP market and the financial and technical features of the projects and sectors concerned. As an example, for a new project, a BOT type of model may be quite suitable in a matured PPP market while a PFI or BOO type of models may be more appropriate in a developing/untested market. A typical PPP structure can be quite complex involving contractual arrangements between a number of parties, including the government, project sponsor, project operator, financiers, suppliers, contractors, engineers, third parties (such as an escrow agent5), and customers.

Figure 2 shows a simplified PPP structure. The actual structure of a PPP, however, depends on the type of partnership model and can be quite complex involving contractual arrangements between a number of parties including the government, project sponsor, project operator, financiers, suppliers, contractors, engineers, third parties (for example, an escrow agent6), and customers (see Chapter 4, 'Terms of contract').

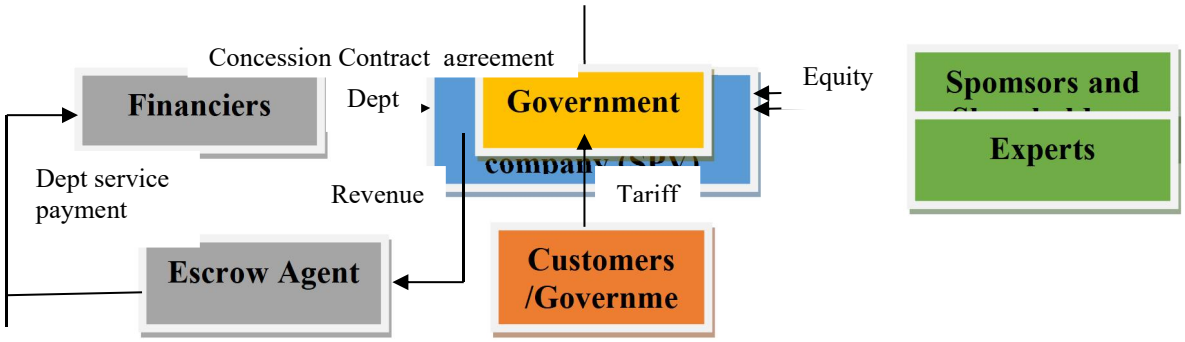


Figure 2. Typical structure of a PPP project

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An SPV is usually set up by the private concessionaire/sponsor(s), who in exchange for shares representing ownership in the SPV contribute the long-term equity capital, and agree to lead the project8. The SPV may not always be directly owned by the sponsors. They may use a holding company for this purpose.

An important characteristic of an SPV as a company is that it cannot undertake any business that is not part of the project. An SPV as a separate legal entity protects the interests of both the lenders and the investors. The formation of an SPV has also many other advantages. A project may be too large and complicated to be undertaken by one single investor considering its investment size, management and operational skills required and risks involved. In such a case, the SPV mechanism allows joining hands with other investors who could invest, bring in technical and management capacity and share risks, as necessary.

The government may also contribute to the long-term equity capital of the SPV in exchange of shares. In such a case, the SPV is established as a joint venture company between the public and private sectors and the government acquires equal rights and equivalent interests to the assets within the SPV as other private sector shareholders.

Sometimes, governments want to ensure a continued interest (with or without controlling authority) in the management and operations of infrastructure assets such as a port or an airport particularly those which have strategic importance, or in assets that require significant financial contribution from the government. In such a case, a joint venture may be established. A joint venture is an operating company owned by a government entity and a private company (or multiple companies including foreign companies if permitted by law), or a consortium of private companies. Often, an SPV is formed as a joint venture between an experienced construction company and a service operations company capable of operating and maintaining the project. Other than its strategic, financial and economic interest, the government may also like to directly participate in a PPP project. The main reasons for such direct involvement may include:

- ❖ To hold interest in strategic assets;
- ❖ To address political sensitivity and fulfil social obligations;
- ❖ To ensure commercial viability of the project;
- ❖ To provide greater confidence to lenders; and
- ❖ To have better insight to protect public interest.

Direct government involvement in a PPP project is usually guided by the legal and regulatory regime of the country and the government policy on PPPs. For example, the government may hold certain defined percentage of the stake in a strategic project such as an airport or a port.

Selecting the appropriate Public-Private Partnership (PPP) model in Uzbekistan depends on the specific project sector, the maturity of the infrastructure, and the risk allocation required under the country's PPP legal framework (governed by the Law on Public-Private Partnerships).

The primary models used in Uzbekistan, along with their practical rationales, fall into distinct categories:

1. Concessions & BOT Variants (Build-Operate-Transfer, DBFOM)

Where it is used: Major transport infrastructure (e.g., Tashkent-Samarkand and Tashkent-Andijan toll expressways), large utility generation projects (such as utility-scale solar/wind IPPs and power plants), and airport modernization.

Why select this model: Uzbekistan’s national PPP targets aim to attract tens of billions of dollars in private capital without incurring immediate public expenditure. Long-term BOT concessions (typically

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15 to 30+ years) shift the financing, construction, and operational risks directly to international investors while ensuring ownership eventually reverts back to the state.

Summary of Model Selection for Uzbekistan

Objective / Sector	Recommended PPP Model	Core Rationale
Capital-Intensive Greenfield Energy & Transport	BOT / Concession	Mobilizes private foreign investment for heavy infrastructure; transfers execution and market risks off state balance sheets.
Social Sector (Schools, Healthcare)	PFI / Availability Payments	Guarantees facility performance standards; public sector pays based on service availability rather than user fees.
Brownfield Utilities & Regional Water/Gas	Affermage / Lease / O&M	Quickly improves operational efficiency and cuts losses on pre-existing government assets.

2. Private Finance Initiative (PFI) / Availability Payment Models

Where it is used: Social infrastructure, including regional hospitals, healthcare centers, public schools, and preschool facilities.

Why select this model: Social sector assets generally do not generate direct user-paid revenues (like toll roads or power tariffs do). Under a PFI or availability payment structure, private companies design, build, and maintain the facilities, while the Uzbek government provides fixed annual operational payments tied to predefined quality and service standards.

3. Affermage / Lease / O&M Contracts

Where it is used: Existing regional water supply and sewerage systems, gas and electricity distribution networks, and agricultural pumping stations.

Why select this model: Modernizing existing brownfield utilities across Uzbekistan requires operational efficiency gains rather than entirely new greenfield builds. Lease/affermage arrangements allow experienced private operators to take over operations, reduce network energy losses, and manage customer services using state-owned infrastructure.

4. Management & Supply Contracts

Where it is used: Specialized airport/port logistics, municipal waste collection, or short-term diagnostic service agreements in public hospitals.

Why select this model: These are short-term solutions (3–5 years) suited for projects where the government wants private sector expertise and technological integration quickly, without entering into complex multi-decade financial structures.

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