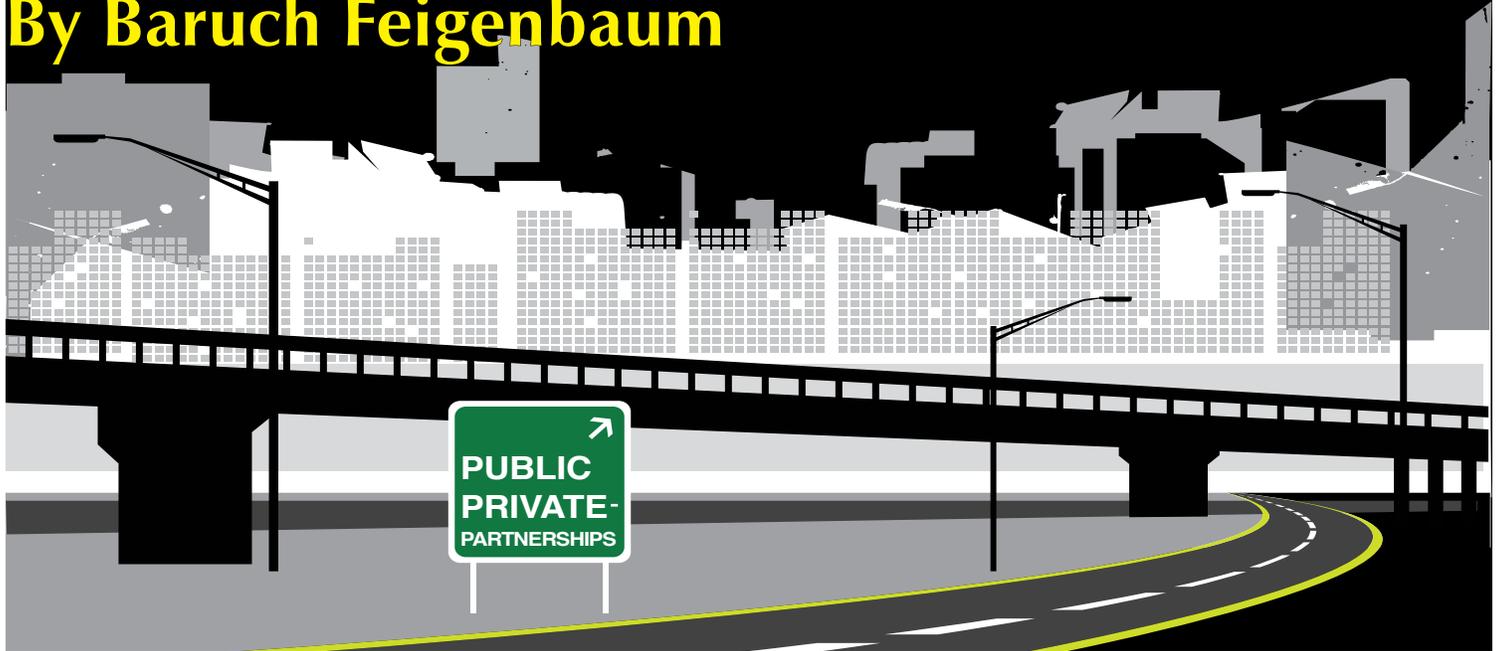




# Risks and Rewards of Public-Private Partnerships for Highways

By Baruch Feigenbaum



## WHAT ARE PPPS?

Public-Private Partnerships (PPPs) for infrastructure are contracts between public and private entities for the provision of facilities in areas such as power, water, transportation, education and health. Well-written PPP agreements specify the allocation of risk, which should create incentives for the private provider to deliver more efficiently and in a timelier manner than would be the case if the project were undertaken by a state-controlled entity.

States are increasingly using PPPs to deliver new transportation capacity, thereby improving road access without unduly increasing the burden on taxpayers. PPPs come in many forms, including both development of new infrastructure (“greenfield” projects) and maintenance and improvement of existing infrastructure.

## WHY PPPS?

PPP projects offer governments a way to address problems such as aging infrastructure, increasing demand and constrained budgets. PPPs should provide incentives to reduce cost overruns and delays compared with traditional projects. PPP projects have five significant advantages:

1. **Delivery of needed additional transportation infrastructure:** PPPs offer a way to fund the construction of highways that otherwise would not be built. Many states are facing a “perfect storm” of growing demand for road transportation and declining funding from conventional sources. As a result, maintenance and renovation of existing systems are using up available resources and congestion is getting worse. With long-term PPPs, the private sector takes on much or all of the responsibility for financ-

ing new highways, enabling governments to use the funds generated through upfront concession fees or revenue-sharing agreements to invest in the maintenance of existing roads.

2. **Ability to raise large, new sources of capital for toll projects:** Rebuilding and modernizing our freeways and Interstates will be very costly. The long-term concession model can raise significant investment capital for new and reconstructed transportation infrastructure because it is attractive to many different types of investors, including private investors, pension funds, banks and other lenders.
3. **Shifting risk from taxpayers to investors:** PPPs involve parceling out duties and risks to the parties best able to handle them. The state remains responsible for public rights-of-way and environmental permitting. Private companies typically assume the risks associated with construction cost overruns and possible traffic and revenue shortfalls. Shifting these risks to parties that have strong financial incentives to contain costs increases the likelihood that the project will be completed on time and costs will be kept down.
4. **Providing a more business-like approach:** Compared with government-run toll agencies, private toll road companies are less susceptible to pressure from narrow political interests and tend to be more customer-service oriented. They are quicker to adopt cost-saving and customer-service oriented technology, products and services.
5. **Enabling major innovations:** Another important advantage is the motivation to innovate to solve difficult problems or improve service. Today, we know that variable pricing (also known as value pricing) works very well to eliminate traffic congestion during peak periods, maximizing throughput while maintaining high speeds. It was a private toll company in California that took the initiative to introduce and perfect value pricing, and the latest generation of PPP projects is using this technology in Florida, Texas and Virginia.

## HOW ARE PPPS IMPLEMENTED?

The PPP procurement process typically proceeds as follows:

1. Bidders must prequalify, which includes a request for qualifications (RFQ).
2. After the qualified bidders have been selected, the state will issue a request for proposals (RFP).
3. Companies (or teams of companies) submit proposals in response to the RFP. Sometimes RFPs are divided into parts. For example, the state of California had different due dates for the financial and technical proposals for the Presidio Parkway Project.
4. The government evaluates all proposals and may choose a certain number to move to a final round. The government may ask for more details or a presentation. This process can take from six months to one year. The selection criteria for proposals vary according to the type of project and the government's objectives. The winning proposal may not necessarily be the least costly or the most technologically advanced, but it should contain a combination of factors that offers the best value proposition.

## DO PPPS INCLUDE NEW NET INVESTMENTS?

Toll concessions that use tolls for a new highway, new lanes or to reconstruct an existing non-tolled highway include new net investments. However, some other types of transportation PPPs, such as long-term concessions based on availability payments, do not include new net investments. (Availability payments are made by state departments of transportation out of already existing sources of funding.) In this type of concession, the private sector still assumes construction and completion risks and is responsible for operating and maintaining the project for the duration of the concession term.

## FUNDING

There are many different PPP funding options. Funding can come from public or private sources. The most common type of public funding includes dedicated transportation taxes (fuel, sales and other types). Additional public funding sources include general obligation bonds, state infrastructure bank loans, other public agency revenue streams, sovereign wealth funds and Grant Anticipation Revenue bonds (GARVEEs).

Private funding sources include direct user charges (tolls or transit fares), bonds, loans and shareholder equity. Hybrid public and private funding sources include tax-exempt private activity bonds (which some consider a form of “tax expenditure” since, like municipal bonds, the interest received by bond buyers is exempt from federal taxation) and TIFIA loans (which are subordinated loans from the FHWA).

Given the government’s limited conventional funds, PPPs access otherwise untapped capital sources for projects that could not otherwise be built. PPPs can tap private equity capital, institutional investors, insurance companies and pension funds.

## FIVE COMPONENTS

Transportation PPPs are structured in many different ways. However, there are typically five common components: design, build, finance, operate and maintain—sometimes abbreviated DBFOM. Some PPPs may only utilize some of these five. The I-495 Capital Beltway HOT-lanes project is an example of a complete DBFOM. The structure of any particular PPP depends on the situation. For example, in some cases the public sector might provide financing, while the private sector builds, operates and maintains the facility. In other cases the private sector finances its activities through tolls. Within tolled systems, in some cases the public sector collects the tolls and compensates the company by means of annual “availability payments.”

## WHAT IS THE DIFFERENCE BETWEEN GREENFIELD AND BROWFIELD PPPS?

A “greenfield” project involves building a new highway or interchange. An example is the SR 125 South Bay Expressway in San Diego. A “brownfield” project involves reconstructing or managing existing highways such as the Indiana Toll Road. New lanes built onto an existing highway are considered a “greenfield” project. An example is the I-495 Capital Beltway HOT lanes in northern Virginia.

## WHAT IS A LONG-TERM CONCESSION?

Long-term concessions are a type of PPP based on a long-term lease. All long-term concessions, whether they are financed by tolls or availability payments,

involve upfront financing, wherein capital to cover the costs of the project is raised before the project begins. Such financing contrasts with the way states traditionally fund highway construction, which is directly from state construction budgets—a funding methodology that imposes constraints unrelated to the desirability or feasibility of projects. Reconstructing a major highway from state construction budgets might take 20 years, due to numerous competing uses for limited funds from annual budget allocations. A concession agreement allows the concessionaire to raise the required capital in one round and then build the highway over a much shorter time period (from months to a few years depending on the scale of the project).

Long-term concessions describe PPPs where the private company designs, finances, constructs and then operates a project for anywhere from 30 to 99 years. Concessions can be used in “brownfield” projects where the private entity operates, maintains and improves an existing highway. The government may continue to supply services or collect tolls. Concessions are also used for “greenfield” projects involving the creation of new infrastructure. The government typically requires the concessionaire to meet a large number of performance conditions during the term of the agreement.

## PPPS HAVE A PROVEN TRACK RECORD

PPPs for complex multi-billion dollar transportation projects have been used for many decades in Europe and for the last two decades in Australia, Latin America and Canada. Large transportation PPPs in excess of \$1 billion are under construction or in operation in Israel, Madrid, Melbourne, Paris, Santiago, Sydney and Toronto, among other locations. Over the past 20 years, nearly two-dozen long-term transportation PPPs have been financed in the United States. PPP toll projects are under construction or in operation in many states, including California, Florida, Texas and Virginia. Twenty-nine states and Puerto Rico now allow some type of transportation-related PPP.

## DO PPPS WORK FOR ALL PROJECTS?

Although PPPs are a tool that can be used in many circumstances, they are not always appropriate. PPP projects require clearly defined risk allocation, careful

due diligence and well-written contracts. Most failures arise from poor contract preparation, inadequate risk allocation, the absence of a competitive environment, and/or poor monitoring and enforcement. Additionally, the quality of state-enabling legislation is important; states with a solid legal framework have enjoyed the most success with PPPs.

PPPs are generally most appropriate for larger projects, especially mega-projects (i.e. over \$1 billion), with their need to raise large amounts of capital and to minimize risks. This is because the efficiency advantages of PPPs rise with the scale of the project: for smaller projects, the costs of structuring the project and monitoring performance can mitigate efficiency advantages. However, even when the scale is smaller, PPPs are able to tap into financial resources not otherwise available, often making them worthwhile.

## WHY ARE INTERNATIONAL COMPANIES PREVALENT?

Until recently the United States had utilized only public sector agencies to build and operate toll roads, inhibiting the development of a domestic PPP infrastructure industry. Many other countries have been using transportation PPPs for decades, so foreign firms tend to be the most experienced toll road providers. A responsible state government will take the track records of bidders into account when choosing which private firm to develop and operate its highways. But the lack of a track record specific to highway construction and operation should not prohibit companies with other relevant experience from entering the bidding. As the U.S. market matures, we are starting to see the emergence of domestic companies.

## IS THE STATE RESTRICTED FROM BUILDING NEW ROADS?

Some people worry that PPPs have provisions that prevent the state from improving existing infrastructure. States do not have agreements that forbid building any transportation project. Long-term PPP agreements may provide for some compensation to the company for directly competing facilities, but only under limited conditions. Typically these occur for unplanned highways very close to the existing PPP facility. For

example, the state of Indiana offers compensation to the operator of the Indiana Toll Road if the state builds a major parallel highway that is not part of the long-range transportation plan *and* the highway is within four miles of the Toll Road. Other states have similar provisions in concession agreements.

## IS THE STATE LOCKED IN TO A PPP FOREVER?

Well-written PPPs have detailed provisions to permit changes, including early termination. These include provisions for resolving disputes and employing independent parties to make fair financial estimates.

## WHAT WOULD HAPPEN IF THE PRIVATE CONCESSIONAIRE GOES BANKRUPT?

If a concessionaire were to file for bankruptcy or close during a lease period, the contract would end and the state would take the toll road back without any obligation to repay the concession fees. The state would get the road for “free,” and it could then re-concession the toll road or run the road itself.

## DO PPPS SELL GOVERNMENT ASSETS?

PPPs or long-term concessions are not the sale of an asset. Rather, they take the form of a lease: the right to do business under highly specified contractual conditions is being transferred to a private entity. The state retains full title and ownership of the asset itself.

## ARE HOT LANES PPPS?

HOT lanes are high occupancy vehicle lanes where multi-person carpools ride for free while single occupancy vehicles pay a variable toll for usage. Some HOT lanes have been developed by converting existing HOV lanes; these are not PPPs. Where new HOT lanes have been created, nearly all are long-term PPPs. Examples include the LBJ (I-635) Managed Lanes in Dallas and the North Tarrant Express project in Fort Worth.

## WHO ARE THE STAKEHOLDERS?

A wide variety of stakeholders may be involved in a transportation PPP. Understanding the parties involved can aid in the creation of a successful PPP. The stakeholders include:

- State legislators, who create the legal environment for PPPs through enabling legislation;
- A public sector executive agency—such as a department of transportation or toll authority—that will act as a project sponsor, enter into the PPP contract with one or more private entities, and provide project management and oversight;
- Other public officials who may play a role in project selection or approval, such as governors, mayors, state transportation commissions or boards, metropolitan planning organizations or members of local legislative bodies;
- Equity investors, such as pension funds, infrastructure investment funds and concessionaires;
- Lenders, such as commercial banks, state infrastructure banks, federal credit assistance programs and buyers of toll revenue bonds;
- Private sector companies that provide design, construction, or operations and maintenance services;
- Technical, legal, financial or other advisors to the public and private partners, and
- Taxpayers.

## SUMMARY AND CONCLUSIONS

Public-Private Partnerships are an increasingly popular transportation procurement option that provides for an alternate method of designing, building, financing, operating and maintaining infrastructure projects. PPPs have five major advantages in that they: deliver needed transportation infrastructure sooner; are able to raise large new sources of capital; shift risk from taxpayers to investors; provide a business-like approach, and enable innovation. PPPs may, but do not necessarily, include net new investments. PPPs can be utilized in most types of projects and are most successful in states with strong enabling legislation. Over the last 20 years, nearly two dozen PPPs have been financed in the United States.

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*The Role for Public-Private Partnerships in Modernizing and Expanding Nebraska's Transportation System* by Shirley Ybarra and Leonard Gilroy

## OTHER HELPFUL RESOURCES

*Public-Private Partnerships for Transportation: A Toolkit for Legislators*

*Federal Highway Administration: Public Private Partnerships*

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