Public-Private Partnerships in Transportation

**Executive Summary**

- Public-private partnerships, commonly known as P3s, are contractual arrangements between the public sector and a private entity in which the private entity is responsible and financially liable for performing functions in connection with a public infrastructure project. Twenty-six states and one U.S. territory have laws allowing them.
- The types of P3s vary according to the scope of responsibility and degree of risk assumed by the private partner. Some partnerships involve the creation of a new transportation asset and some seek to monetize an existing asset.
- Two of the best-known examples of P3s are the Chicago Skyway and the Indiana Toll Road. A private consortium of Spanish and Australian toll road developers paid the city of Chicago $1.8 billion in 2005 to operate and maintain the Skyway for 99 years. The same developers also won a bidding process to operate the Indiana Toll Road for 75 years with an upfront fee of $3.8 billion.
- The partnerships may save significant costs, shorten project delivery times and shift risk to the party best able to manage it. P3s can also encourage innovations and incorporate life-cycle costs into the design and construction of the transportation projects.
- P3s may also have disadvantages in the eyes of some, including higher tolls on roads under private operation, provisions preventing the state from investing in competing roads therefore ceding control, foreign ownership of private toll road companies and the length of long-term lease agreements.
- Some have expressed concern that if a private company fails to manage a transportation asset, the state would be forced to step in, sticking taxpayers with the bill. However, that isn’t the case with the failures of P3s in California, Colorado, Texas and Virginia.
- Texas, once one of the states most aggressively pursuing P3s, has set a moratorium on new private sector toll projects.
- Concerns about protecting the public interest in P3 contracts can be managed by including contract termination or buyout clauses, limiting toll rate increases and incorporating benchmarks for the private sector entity.
- P3s may not be the right choice in all situations and for all states. Some view tolls as double taxation. Tolls hit lower-income groups harder and they appear to work best in congested areas with enough traffic to generate toll profits, according to the Government Accountability Office.
- Between $340 billion and $600 billion in private capital is available for investment in infrastructure around the world, according to Congressional Research Service estimates.
- The recent credit crunch lessened the enthusiasm for P3s, especially long-term leases of existing transportation assets, USA Today reported. The enthusiasm and the availability of private capital may return as the economy improves, according to Scott Pattison, executive director of the National Association of State Budget Officers.

**Why Public-Private Partnerships?**

Twenty-six states and Puerto Rico have laws allowing them to enter into an agreement with a private entity to finance an infrastructure project through risk sharing. These partnerships are called public-private partnerships or P3s for short. Michigan, which has had more than its share of economic woes in recent years, may soon be joining the group allowing the partnerships. In May, the state’s House of Representatives passed House Bill 4961, which would allow public-private partnerships for public transportation projects.
New York and Pennsylvania are among the other states hoping to get a piece of the public-private partnership action. Both states have studied the issue in recent years. Their efforts and those of the states that preceded them are an indication that the U.S. infrastructure finance system is broken. It’s relied for many years mostly on revenues generated by gas taxes at the state and federal levels. But political considerations have made it difficult to adjust those taxes to account for inflation and the increased efficiency of automobiles that means motorists are buying fewer gallons of gas with the tax attached. Meanwhile, the federal government has yet to come up with a new plan for the future of transportation funding. New legislation to authorize federal transportation programs has been delayed until at least 2011.

That’s left states looking for inventive solutions to address their ever-increasing infrastructure needs. Enter the public-private partnership, a funding mechanism that has proved successful in Europe, Australia and elsewhere. Many states hope it can at least be a part of the solution to the transportation finance puzzle.

Defining Public-Private Partnerships

So what exactly is a public-private partnership? In P3s or PPPs, according to the U.S. Department of Transportation, the private entity is often selected for its expertise in the different functions to be performed, which may include design, construction, financing, operation and/or maintenance of the project. Under these arrangements, the public sector shifts certain risks to the private partner and instead focuses not on detailed project specifications but on desired outcomes. The private entity is allowed to earn a financial return commensurate with the risks it assumes on the project.

Types of P3s

The types of P3s vary according to the scope of responsibility and degree of risk assumed by the private partner related to the project’s design, construction, operation or maintenance. They can also be divided among pure greenfield P3s and pure brownfield P3s. The terms “greenfield” and “brownfield” are used in various disciplines to refer to projects that are built either on greenfield land where there is no need to remodel or demolish an existing structure, or on brownfield land that is in someway polluted, contaminated or previously used and where pre-existing facilities must be modified or upgraded. In the case of P3s, pure greenfields involve the creation of an entirely new road or other transportation asset, while pure brownfields seek to monetize an existing asset.

The U.S. Department of Transportation categorizes P3s according to six basic types, listed from least to greatest private responsibility:

- **Private Contract Fee Services**— These involve turning over to the private sector responsibility for providing operations, maintenance, program or financial management services.
• **Design-Build**—These P3s combine two services traditionally bid separately into one fixed-fee contract. The public sector retains ownership of the facility as well as responsibility for planning, preliminary engineering, financing, operations and maintenance.

• **Design-Build-Operate-Maintain**—These add private sector responsibility for operations and maintenance.

• **Long-Term Lease Agreement**—These involve leasing an existing facility to a private company for a specified amount of time. The private company usually pays an initial concession fee and must operate and maintain the facility to certain standards. They often collect tolls and keep the revenue to pay bondholders and generate a return on their investment.

• **Design-Build-Finance-Operate**—These add private sector responsibility for most of the financing, usually through tolls, sometimes supplemented with public sector grants and/or in-kind contributions such as right-of-way.

• **Build-Own-Operate**—The private sector is granted the right to design, build, operate, maintain and own a facility in perpetuity.4

There are a number of other different configurations and combinations involving elements of these six types as well.

While some of these types—especially long-term lease agreements—have lost favor recently, others appear to be taking their place in the U.S. A model popular in Europe called “availability payments” is being used in the expansion of Florida’s I-595 Expressway. Under this model the private sector designs, constructs and manages the transportation asset, which the government continues to own. The government compensates the private partner for the risks and responsibilities it undertakes. Payments are based on specific performance standards and ensure investors make money only if they keep their part of the agreement. This model is often used for toll facilities that aren’t expected to generate adequate revenues to pay for themselves. In the case of the Florida expressway, the availability contract, which took effect in 2008, is to redevelop I-595 with new toll lanes, bus lanes and improved interchanges in a deal that will cost $1.8 billion. The private consortium chosen to take on the project will design, build, finance, operate and maintain the facility for 35 years. Tolling will remain a revenue stream for the Florida Department of Transportation.5

**Chicago Skyway**

One of the most well-known examples of a long-term lease agreement P3 in the U.S. is the Chicago Skyway, an eight mile toll road connecting the Dan Ryan Expressway on Chicago’s South Side with the Indiana Toll Road. In 2005, the city of Chicago entered into an agreement with a private consortium of Spanish and Australian toll road developers to operate and maintain the Skyway for 99 years. The consortium paid the city $1.8 billion upfront. It will collect all toll revenue during the period to fund the road’s operation and maintenance, to repay the debt that financed the $1.8 billion payment and to provide a reasonable return on its members’ contribution of equity. Under the agreement, toll rate increases are fixed through 2017 (for cars they will gradually rise from $2.50 to $5) and capped thereafter at the greater of 2 percent, the consumer price index or per capita gross domestic product.

The $1.8 billion upfront concession payment the city received was used for a variety of purposes: $463 million was used to repay the outstanding debt on the road; $392 million is being used to pay down the city’s general obligation debt; and $875 million was placed into long-term and medium-term reserve funds.6

**Indiana Toll Road**

The 157-mile road that runs across northern Indiana and connects the Chicago Skyway to the Ohio Turnpike is another example of a long-term lease agreement. Following quickly on the heels of the Chicago Skyway deal, the same Spanish and Australian toll road developers beat out 10 other proposals in a bidding process to operate the Indiana Toll Road for 75 years. The consortium paid $3.8 billion and began operating the facility in June 2006. Tolls for cars were limited to $8 through June of this year. From now on, tolls will be increased by the greater of 2 percent, the percentage change in the consumer price index, or the percentage increase in per capita nominal GDP.

The Indiana Department of Transportation is using the $3.8 billion upfront fee to fund 200 highway construction projects and 200 highway major preservation projects under a 10-year program called Major Moves. The seven counties through which the toll road passes are also receiving payments of between $40 million and $120 million for local transportation projects.5

The Chicago Skyway and Indiana Toll Road may be the two best-known long-term lease agreements involving previously existing road assets in the U.S. but they are by no means the only examples of public-private partnerships. As mentioned previ-
Benefits of P3s

States see plenty of potential benefits to P3s. The U.S. Department of Transportation in a 2008 report cited several, including:

- P3s can result in significant cost savings—Anywhere from 6 to 40 percent of the cost of construction can be saved and the potential for cost overruns can be significantly limited through fixed-price contracting.
- P3s can shorten project delivery by several years—They can accelerate the construction of projects that might otherwise be delayed, be built a piece at a time over a long period of time or not be built at all by providing access to immediately available private capital.
- P3s allow for the allocation of risk to the party best able to manage risk—Transferring a significant portion of the project risk to the private sector helps reduce taxpayer costs. This risk allocation can result in lower overall project risks, reduced project costs and accelerated project delivery. The public sector’s ability to manage a large number of projects simultaneously is also enhanced by proper risk allocation.
- P3s can encourage innovations and the incorporation of life-cycle costs—They can encourage the incorporation of life-cycle costs in the design and construction of a facility, which often leads to delivery of a higher quality project.12

On that last point, the Government Accountability Office notes in a separate 2008 report that P3 projects can use tolling and congestion pricing (charging motorists more at times of peak travel) to ensure the true costs of operating and maintaining the facility are taken into account and the costs and impact to drivers of using the roadway system during peak demand periods are factored in as well. The previously mentioned new HOT lanes on the Capital Beltway in Northern Virginia will incorporate congestion pricing. Among the other benefits of P3s suggested by the GAO report is this one: Efficiencies in operations can also be achieved through private sector participation.13

Cautions & Potential Drawbacks of P3s

So what are the potential costs and trade-offs for the public sector associated with P3s? The GAO report identified several of those as well, including:

- Road users pay tolls, regardless of whether the collector is in the private sector or the public sector. Road users may see higher tolls under private operation.
- The public may give up more than it gains if the tolls over time exceed the value of the upfront payments from the private entity.
- Because of the way contracts are structured to put off toll increases, future road users could end up paying higher tolls to support current road benefits. That may result in what the GAO calls intergenerational inequities.
- Not all risks can or should be shared, for example environmental and political ones.
- States may have to cede some control through
Critics have raised a number of concerns about public-private partnerships in recent years. The Reason Foundation, a libertarian public policy research organization that supports P3s, analyzed these concerns, including:

- **Many of the private toll road companies involved in P3 agreements are foreign companies.** Proponents point out, however, that until recently the U.S. has used only public sector agencies to build and operate toll roads. The companies with the most proven track record are still those from Europe and Australia, which have been using P3s in transportation for decades.

- **The lengths of the agreements are too long and state governments are committing future generations when the transportation needs of tomorrow, including the viability of the roads and their usage, can’t be predicted.** But, proponents say, state governments already commit taxpayers for long periods when they use bonding to pay for infrastructure. Moreover, concession agreements can be written with provisions that permit changes during their term.

- **Some concession agreements contain non-compete clauses to prevent the construction or improvement of parallel, non-tolled roads that could provide competition for the tolled road.** However, such clauses have evolved in recent years after outright bans on alternative competing roads proved flawed, unnecessary and unpopular. Recent agreements more widely define what the state may build and generally allow the construction of everything in its current long-range transportation plan.

- **Toll road leasing can lead to higher tolls.** While this is often true, toll rates may have been too low when the road was under state control. In Indiana’s case, tolls on the Indiana Toll Road had not been increased in 20 years and the impact of inflation meant the cost of collecting the toll was greater than the amount of the toll payment. Moreover, when state governments face a financial crisis, they are sometimes forced to increase tolls by a high percentage all at once. Private toll companies, on the other hand, can raise tolls each year by a single digit percentage to keep up with inflation, which is ultimately less disruptive for regular toll payers. It also may be less disruptive for state officials since they don’t have to approve the toll increase and potentially face the political consequences.

- **Americans already pay for roads through taxes and shouldn’t have to also pay a private company for roads through tolls.** Most toll roads were actually financed with little or no tax-based grant money, but instead were financed with loans based on prospective toll revenues. Moreover, analysts point out, roads are never fully paid for because they require periodic maintenance, reconstruction and widening.

### What if a P3 fails?

Not all the public-private partnerships in the U.S. were successful. The South Bay Expressway, a toll road project in San Diego that was once held up as a model for other P3s, filed for Chapter 11 bankruptcy in March after being open for business for less than three years. The Australian firm that owns the expressway, Macquarie Infrastructure Group, had offered assurances that 60,000 customers paying $4.50 to drive 10 miles would use the road daily but only 22,600 customers actually did. That left the project without enough revenue to sustain its debt obligations.

A study done for the Texas Department of Transportation in 2008 found a majority of toll road projects overestimated traffic levels in the first five years by at least 20 to 30 percent.

After this high profile failure, some feared California taxpayers would get stuck paying off the expressway’s debts. An editorial in the Washington Times said it demonstrated the private concession toll road model was a “road to nowhere.” But in a letter to the public, South Bay Expressway CEO Greg Hulsizer wrote the P3 mechanism actually worked in this case by allowing a long needed road to be built decades earlier than it otherwise would have been. Hulsizer also wrote that: “The financial risk on the project was transferred to the private sector. We and our lenders took the risk that things wouldn’t work out as planned. They haven’t. But the state isn’t on the hook for that. It’s up to us (the concession company and its investors) to work it out (to pay the debt).”

P3 proponents also point out that other toll concession projects that have failed in Colorado, Texas and Virginia similarly were not taken over by the state. Instead, other private buyers assumed ownership and the roads remain in operation.
How Can States Decide Whether to Pursue P3s?

The Pew Center on the States last year examined the failure of a plan to lease the Pennsylvania Turnpike. In its report, the center offers a list of questions state policymakers should answer when considering P3s, especially long-term leases, to fund infrastructure improvements. They include:

Questions about the policymaking process

- Did the state complete appropriate due diligence prior to proposing a lease of the roadway?
- Is the process adequately and appropriately transparent, with sufficient involvement from the public and other stakeholders?
- Do both the executive and legislative branches have access to the information they need to make a sound decision?

Questions about tolling

- If tolls will be increased, what is the likely effect on traffic patterns? If increased tolls on the leased road lead to more traffic on alternative roads, will the government have to spend additional funds to improve non-toll roads?
- Will safety on the statewide transportation network be adversely affected if travelers avoid the tolls by using alternative roads?
- Is it unfair that current users get to enjoy the transportation system that future generations will be paying for through higher tolls?
- Is one group of individuals being asked to finance the majority of the state’s transportation needs? Is that equitable?
- What are the economic and business implications for the state if the lease is allowed?
- How does the proposal take into account the potential impact on congestion, pollution and land use?

Questions about the bidding and contracting processes

- Was the bidding process fully competitive?
- What are the transaction costs associated with the deal? Are they reasonable?
- What provisions for flexibility are written into the lease? Can the government and the private operator make choices related to level of service, maintenance, etc., to reflect changing circumstances?
- What risks do the public and private sectors bear in the deal? Does the financial structure of the lease account for risks borne by the state or the private operator?
- Does the party bearing the risk also have control that allows it to fix problems that arise related to that risk?
- If the lease is awarded, can the state still build competing and/or complementary roads or transportation routes? If not, what are the long-term implications? 28

What was behind the Texas turnaround?

Texas is interesting because at one time it was the state most aggressively pursuing tolling and P3s. But a populist backlash led to formation of an unlikely coalition opposing both and the state legislature in a special session last year failed to reauthorize long-term highway P3s. As a result, until at least 2011, only new toll projects launched by public sector toll authorities can go forward in the state.

The reasons for the backlash were wide-ranging and in some ways unique to Texas, analysts say.

Conservative ranchers were concerned about a land grab to make possible the ambitious Trans-Texas Corridor project, which was originally conceived as a 4,000 mile network of supercorridors up to 1,200 feet wide to carry parallel tollways, rail and utility lines. Conspiracy theorists feared the project’s first corridor, which was to run parallel to congested I-35 from the Mexican border to Oklahoma, was part of a plan to eliminate border control. The Spanish company Cintra then won a contract to plan the corridor, which caused some to question the issue of foreign control. Finally, public-sector toll agencies in Dallas and Houston expressed concerns that P3s were a mortal threat to their own continued growth.

Texas lawmakers did consider legislation during their 2009 session to extend P3 authority. It was amended to include a termination-for-convenience provision that would have required all P3 agreements to contain a rider allowing the state to buy out the concession at a pre-determined price. The legislation also included a local primacy provision that would have allowed future P3s to move forward only as a last resort if the local toll authority did not want to tackle the project. Controversy over those two provisions combined with the backlash provided the momentum to kill the bill and effectively enact a moratorium on P3s, in the process also killing the original plans for the Trans-Texas Corridors.21

Protecting the Public Interest in P3s

Including the right terms in P3 contracts can help manage many of the concerns about protecting the public interest in public-private partnerships, according to a 2009 report issued by the Transportation Research Board’s National Cooperative Highway Research Program. More recent P3 contracts are designed to address past issues with other P3s. Clauses allowing for contract termination or buyout are becoming more common in the states. States can also incorporate benchmarks for the private sector to meet in safety, maintenance and other standards. The state can then monitor the private sector entity to ensure these benchmarks are met. States can also examine appropriate use of revenues, environmental standards and fair labor practices.22

P3 contracts, or concession agreements, can be written to incorporate enforceable, detailed provisions to cover such things as:

- Who pays for future expansions, repairs and maintenance;
- How decisions on the scope and timing of those projects will be reached;
Can P3s Help Solve States' Highway Finance Problems?

While there remains a great deal of hope in state capitals that P3s can provide some assistance in financing infrastructure, it has been tempered somewhat in recent years by the realization that P3s are simply not applicable to all situations. For one thing, obtaining public and political support to implement tolling is often difficult. As GAO’s 2008 report points out, opposition to tolling stems from the public’s belief that fuel taxes and other dedicated funding sources already pay for roads and thus tolling is seen as a form of double taxation. The inequity of tolling is another factor that prompts opposition. Lower-income groups have a harder time paying tolls than those with higher incomes. The nature of P3s would also seem to favor congested areas of the country with enough traffic to generate profits through toll revenues. The private sector also must see an investment opportunity and a need for more highway capacity or more efficient operations. That could leave out rural areas.

There may also simply not be enough private capital to go around. Between $340 billion and $600 billion in private capital is available for investment in infrastructure around the world, the Congressional Research Service estimates. Its report also suggests private funding for infrastructure is unlikely to amount to more than 10 percent of the ongoing needs of highways in the U.S. over the next 20 years and a much smaller share of transit needs.

Moreover, USA Today reported last year that leasing of government assets by private firms has all but stopped as credit dried up in the credit crunch. The economy made investors skeptical, analysts said. The companies that bought the Chicago Skyway and Indiana Toll Road suffered from buyer’s remorse. Macquarie Infrastructure Group reported in 2009 that its toll road investments, including the Skyway and Toll Road, had lost one-third of their value. The newspaper also cited, among other things, the failure of Florida’s “Alligator Alley” section of I-75 across the Everglades to attract bids when it was put up for auction last May as further proof that perhaps we’ve seen the last of such sell-offs for awhile.

Not so fast, others say.

“The market has really died down for that recently, both in the willingness of governments to get into them and in the availability of private capital,” National Association of State Budget Officers Executive Director Scott Pattison told Governing magazine in February. “(But) I wouldn’t be surprised if we start to see a lot of interest in this as states start to recover over the next three to five years and beyond.”

Conclusion

While it remains to be seen whether P3s can play a significant role in the future of U.S. infrastructure finance, state officials can and should be doing what they can to determine if P3s are right for their state and their transportation assets. In doing so, it’s important for them to weigh all the potential benefits and trade-offs mentioned elsewhere in this brief, to consider the experiences—both successes and failures—of other states and indeed other countries with P3s, and to make the right choices to protect the public interest. Investment of private capital, should it be available and warranted, can be an important tool in meeting state transportation needs.