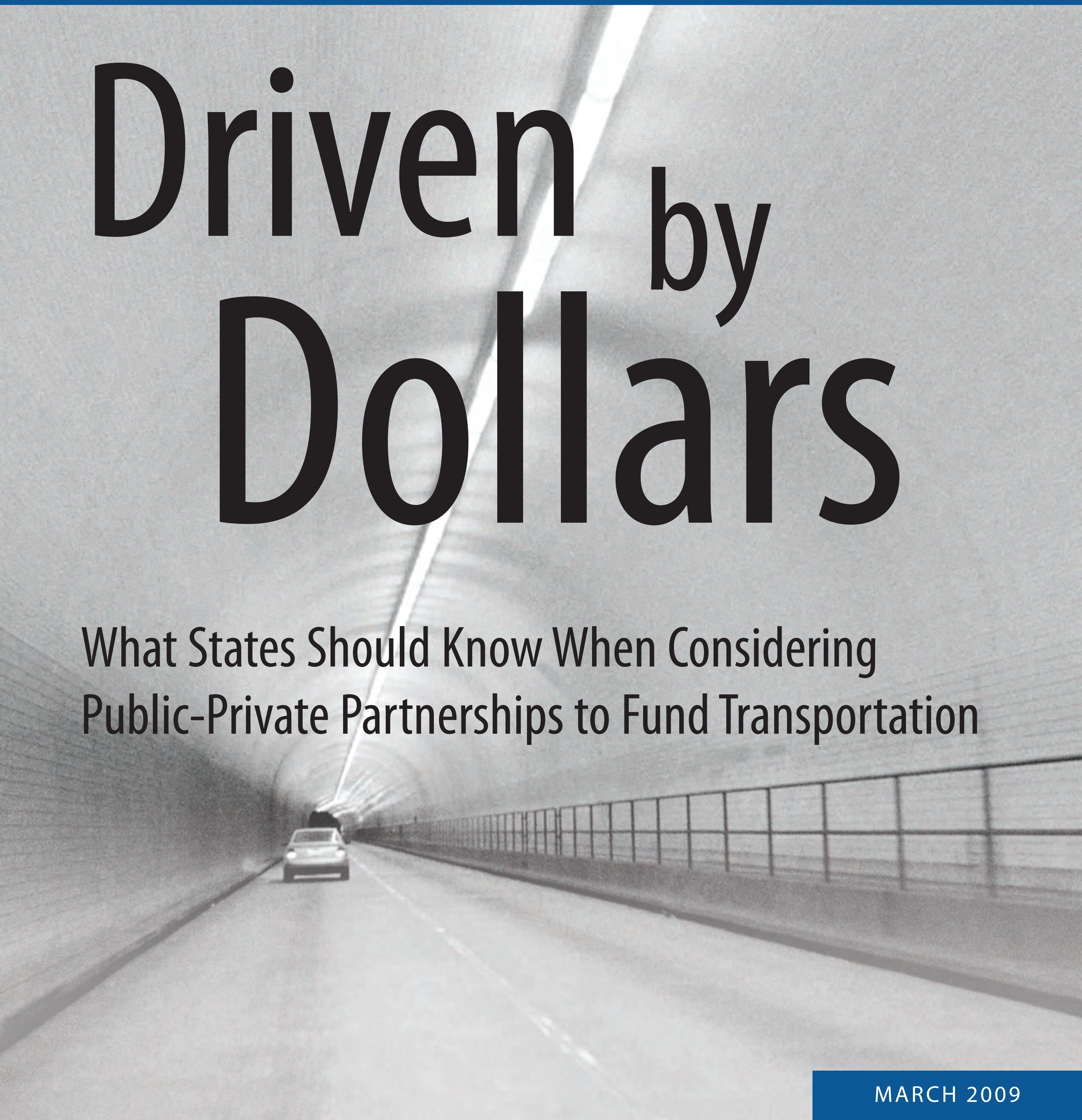
THE PEW CENTER ON THE STATES

Driven by Dollars

What States Should Know When Considering Public-Private Partnerships to Fund Transportation



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THE PEW CENTER ON THE STATES

March 2009

Dear Reader:

America's infrastructure is in desperate need of repair. Our deteriorating highways, roads and bridges and the increasing demands for new transportation networks have left us with an annual gap of $47 billion between the projects the nation needs and those it can afford. The stakes are high: failing to close the gap and improve our infrastructure could hurt states' ability to attract businesses and compete in the global economy, and reduce the quality of life for millions of Americans.

In today's economic crisis, bridging the gap will take new ideas and new sources of revenues. Increasingly, cash-strapped states are considering public-private partnerships to generate new money for needed projects. Public-private partnerships have been used around the world for years to underwrite infrastructure, but they've only recently gained a foothold in the United States. The deals are complex, typically stretching for decades and involving billions of dollars.

In this report, the Pew Center on the States analyzed Pennsylvania's recent debate about leasing its turnpike as a case study to determine whether lawmakers had the information they needed to make a sound decision, and to highlight what other states can learn from those deliberations. Pennsylvania's experience will be useful to policy makers across the country as they examine public-private partnerships and consider such deals to fund their infrastructure needs.

The Pennsylvania case—and the experiences of other states and countries—illustrate how long-term deals are often debated with a short-term perspective. Pennsylvania policy makers did a lot right in their first exploration of such a lease, but they fell short in key areas of how the deal was proposed, structured and handled. If Pennsylvania and other states want to pursue successful public-private partnerships, more questions need to be asked—and answered.

Driven by Dollars builds on the work of the Center, which grades states on how well they manage their infrastructure and assesses states' fiscal health and economic competitiveness. We hope this report will help inform and guide states as they consider public-private partnerships as a way to fund their infrastructure needs.

Sincerely,

Susan Urahn
Managing Director, The Pew Center on the States

Executive Summary

In 2008, Pennsylvania policy makers debated whether to lease the Pennsylvania Turnpike to a private consortium for 75 years in exchange for an upfront payment of $12.8 billion. The proposal, as structured and handled, was seriously flawed and, as of this report's release, has failed to move forward. While officials in both the executive and legislative branches were well informed and had sound information about some aspects of the proposed partnership, they lacked crucial and accurate analysis about other aspects. But in the aftermath of that failed deal, Pennsylvania's unfunded infrastructure needs remain, and the state may again consider leasing assets to help pay its bills. Pennsylvania is just one of a growing number of states thinking about public-private partnerships, making it imperative that policy makers across the country learn from its experience.

In 2008, the federal Highway Trust Fund—one of the nation's primary sources of funding for highway renovation and construction—almost went broke. States, hurting from falling revenues of all kinds, including gas tax proceeds, lack the money to meet their own infrastructure needs. These funding problems have turned into a crisis. Every year, the numbers worsen. Much-needed highway repairs are being neglected, and the cumulative shortfall between those needs and available funding is about $47 billion a year.[1]

The current trend is unsustainable. Congestion and pollution will continue to increase, public safety will be compromised, and states' economic growth and ability to attract and retain strong businesses will falter if the nation's transportation system fails to receive the investments it needs. Policy makers are seeking all kinds of solutions. Federal funding—through the stimulus package, a proposed infrastructure bank or both—will help. But the gap remains large, and as a result, state leaders are looking to partner with the private sector. Recent long-term leases of the Chicago Skyway and the Indiana Toll Road to consortiums of private operators in exchange for sizable upfront payments have heightened states' interest; Massachusetts, Florida and New York are among those contemplating similar deals.

To help state policy makers across the country understand the information they need to have and the questions they need to answer when considering public-private partnerships to fund infrastructure, the Pew Center on the States used the Pennsylvania experience as a case study. We sought to assess what the state did well and where the process could have been improved. To accomplish this, we interviewed state officials and advisors, legislators, representatives of the bidders and the Turnpike Commission, and transportation and finance experts; reviewed the lease proposal and relevant documents; and researched similar deals in other states and countries.

Key Findings from the Pennsylvania Experience

What Went Right?

- *Pennsylvania thoroughly identified its infrastructure needs and conducted due diligence before negotiating with bidders*.

The funding debate stemmed from a comprehensive assessment of the state's highway and transit needs conducted in 2006. That report indicated that Pennsylvania needs to spend $1.7 billion more each year to maintain its current transportation system. The state commissioned additional reports on the turnpike's finances, condition and traffic to help inform and guide state officials in the bidding process.

- *The bidding process was well-run and produced the highest possible bid, given the lease terms set by the state and prevailing market conditions at the time*.

Pennsylvania managed a competitive bidding process. The state whittled 14 original bidders down to a final round of three, and through a best and final offer round, generated a $2 billion increase in the highest bid.

- *Detailed performance standards were set for the life of the lease*.

Although the proposed three-member board for overseeing the lease drew criticism for not including legislative and public representatives, the lease proposal itself set out copious performance measures that the private operator would have had to meet. Similar to the public-private partnerships in Chicago and Indiana, the turnpike lease established both routine condition standards and the condition in which the private operator would have to hand the road back to the state at the end of the lease.

What Undermined the Deal?

- *Discussions between the executive and legislative branches could have been handled better.*

Governor Edward G. Rendell, long interested in a lease of the Pennsylvania Turnpike to help the state generate some of the cash needed to fill its infrastructure funding gap, opted to pursue a public-private partnership just after the state had enacted Act 44, a landmark transportation funding bill. Members of the legislature, particularly supporters of Act 44, were confused by the timing of the governor's decision and felt they had been excluded from the process. Many were less inclined to look favorably on the lease, a sentiment that grew when the winning bid was billions less than many lawmakers expected.

- *The financial assumptions related to the deal were overly optimistic*.

$12.8 billion undoubtedly would have enabled Pennsylvania to invest more in its infrastructure. Governor Rendell intended to save most of the proceeds and to use the interest they generated to pay for infrastructure projects. The state assumed it would earn 12 percent annual interest on the principal, generating more than $1 billion in additional infrastructure spending a year.[2] But a 12 percent annual return seemed highly unlikely, and far outstripped the returns projected by both the Pennsylvania State Employees' Retirement System (SERS) and Morgan Stanley, the state's advisor on the proposed lease.

- *The state lacked a clearly articulated plan for how the proceeds would have been invested and spent.*

Pennsylvania developed its financial assumptions based on the last 20 years of SERS returns. But not only did the proposed legislation not call for the state to invest the upfront sum in that particular pension system, it also did not set out any guidelines for how the funds should be invested. That uncertainty extended to how the money would be spent; unlike some other long-term lease proposals that described expenditures in detail, the Pennsylvania proposal lacked such a framework. That missing element raised questions about how long the money could support infrastructure investments.

- *The proposed oversight mechanism for deciding where to invest the upfront payment and how to spend the proceeds raised questions about transparency, accountability and adequate planning*.

The original legislation called for a three-member board consisting of the governor, the budget secretary and the transportation secretary to control investment and spending decisions, and oversight of the private operator's performance. The lack of legislative or public representation on the small board troubled some legislators, who used it as a reason not to support the lease—although they could have revised the legislation to propose a different approach.

- *The debate lacked adequate consideration of the state's long-term interests*.

Pennsylvania considered the proposal to lease the turnpike primarily as a way to generate a large, upfront payment that could pay for infrastructure improvements across the state. The short-term implications of that payment dominated the debate about whether to proceed with the lease—an experience that closely resembled the process in other states. Although it is impossible to know what ground transportation may look like decades from now, policy makers need to consider more seriously the long-term effects of a lease on their taxpayers, their economies and their environment.

As States Move Forward

Pennsylvania's failure to lease the turnpike in 2008 does not preclude another lease—whether of the turnpike or another asset—from moving forward. A public-private partnership is a complex deal, full of moving parts. No one element of it—not even a massive upfront payment—automatically renders it a "good deal" or a "bad deal."

What Information Do States Need?

Pennsylvania's experience illuminated the central questions for all states: what do policy makers need to know to make an informed decision on a public-private partnership? Do they have all the information and answers they need? The key questions involved in leasing an infrastructure asset fall into four main categories:

1. *The decision-making process*. States should carefully and thoroughly examine all of their options to generate funds for infrastructure, including, but not limited to, public-private partnerships.

2. *The deal-making process.* If a state decides that pursuing such a partnership makes sense, it must ensure that the deal-making process is as transparent as possible, that the public's long-term economic, environmental and

transportation interests are considered, and that policy makers have all of the data and nonpartisan analysis they need to make a well-informed decision.

3. *The financial analysis*. The state must use realistic financial assumptions to assess whether the potential deal is sound. It also must develop and articulate a sound plan for how the proceeds will be invested or spent.

4. *Oversight and management of a long-term partnership*. Finally, the state must consider how it will ensure the public is protected and the private operator continues to meet its obligations in a deal that could stretch over decades.

What Lessons Can States Apply?

Policy makers can learn much from their peers' experiences—both good and bad. Our analysis of Pennsylvania's experience, informed by other domestic and international public-private partnerships, reveals a number of lessons other states may want to apply as they continue to investigate the feasibility of these deals for themselves:

- Passage of enabling legislation that establishes the state's general interests and terms for a public-private partnership before negotiations begin can help set the ground rules and be a valuable tool as a state considers a specific proposal. This helps ensure that policy makers have thoroughly debated the pros and cons of public-private partnerships and allows for more efficient and informed consideration of a particular proposal. Nearly half the states have adopted such laws.

- Transparency and inclusion are crucial to achieving buy-in from stakeholders. The state must strike the appropriate balance between protecting bidders' proprietary information and sharing enough details that policy makers and the public understand both the short- and long-term implications of the deal.

- A state's decision makers must have a clear understanding of the principal goals for a public-private partnership in the area of infrastructure, because different goals will require different tradeoffs. A state pursuing a lease primarily for immediate financial gain, for example, may be willing to extend the lease for more years and give the private operator greater ability to raise tolls if that will result in a higher upfront payment.

- A proposed deal must be based on realistic financial assumptions.

- A well-planned public-private partnership proposal must thoughtfully and specifically describe how the revenues a lease will generate will be invested and spent, and how the private operator's performance will be monitored.

- A long-term deal deserves a long-term perspective. As policy makers debate the pros and cons of a public-private partnership, they should consider a long-term lease's effects on the economy, the environment and the next generation of taxpayers.

The National Infrastructure Funding Crisis

America's roads need help. More than half of the nation's highways are not in good condition, costing drivers more than $50 billion in car repairs and more than four billion hours stuck in traffic per year. They're costing states, too, in terms of economic competitiveness: companies don't want to stay in areas where it's difficult to transport goods or for employees to get to work.[3]

> "To ensure our nation's ability to compete in an evolving global economy and respond to crucial energy and environmental challenges, we must not only maintain our infrastructure system but also enhance and improve it. And, we must do so in a way that is transparent and accountable to the American people."
>
> *Pennsylvania Governor Edward G. Rendell, chair, National Governors Association, 2008-2009; An Infrastructure Vision for the 21st Century, National Governors Association, February 2009, iii.*

Created in 1956, the national interstate highway system was assigned a primary funding source: the U.S. Highway Trust Fund, which would be fueled by taxes on gasoline. Since then, the buying power of those funds has eroded, dragged down by inflation, improved fuel efficiency and rapidly rising construction costs. Today, drivers pay less than half as much per mile traveled as they did at the end of the 1950s.[4] The Trust Fund was slipping into insolvency until Congress provided an emergency infusion of $8 billion in September 2008. State and local governments welcomed the move, all the while realizing that the one-time injection of money would not solve the country's long-term transportation funding crisis.

State and local governments account for more than half of highway and transit funding in America, and they've also been pinched.[5] The share of state government highway funding paid by user fees has declined by nearly 20 percent since 1965, putting more pressure on states' general revenues to close that gap.

Funding Options

To remain globally competitive, the United States must reassess its approach to funding transportation infrastructure, according to a February 2009 report from the National Surface Transportation Infrastructure Financing Commission. But some of the options under consideration would take years to implement, others are politically unappealing, and none yet proposed resolves the infrastructure funding crisis.[6] Increasing state and federal gas taxes could help, but that move remains politically sensitive because drivers—voters—dislike higher prices at the pump, even as those prices have fallen. "In the long run, the crisis is even more serious because the current gas tax could not support the levels of expenditures that we have become accustomed to over the last several years," explains Kenneth Orski, a transportation funding expert who writes *Innovation Briefs*, a transportation newsletter. "Some kind of additional resource will have to be found to sustain the needed expenditures."[7] One alternative, a per-mile driving tax, presents many of the same political headaches as increasing the gas tax and introduces new privacy concerns.

A national infrastructure bank—a Congressional proposal also endorsed by President Obama—would allocate $60 billion in federal loans to

CHICAGO SKYWAY

Facts and Figures

- Leased in 2005
- 7.8 mile toll road
- $1.83 billion upfront payment
- 99-year lease
- No revenue sharing
- Annual toll increases (after 2017) capped at highest of 2 percent, Consumer Price Index or per capita GDP increase
- No non-compete clause

Struggling with a budget deficit in 2004, the City of Chicago looked for ways to maximize its assets, including the Chicago Skyway, a 7.8-mile toll road connecting Interstate 94 to Interstate 90. During the 47 years the city's Department of Streets and Sanitation managed the Skyway, toll changes were infrequent, with tolls even decreasing by approximately 25 percent in real terms between 1989 and 2004.

Chicago accepted bids for the Skyway in October 2004; the winner, the Macquarie/Cintra consortium, bid $1.83 billion for a 99-year lease and took control in January 2005. Macquarie/Cintra is able to gain more than the city from the road in part because of annual toll increases. A pre-established toll schedule runs until 2017, after which annual toll rate increases will be capped at the highest of 2 percent, the Consumer Price Index (CPI), or the increase in nominal gross domestic product per capita.

The city used the upfront payment for the Skyway to pay down outstanding debt, create a reserve fund, provide immediate budget relief and pay for other non-transportation-related programs. Although those expenditures did not directly improve the city's transportation system, they led to an upgrade in the city's credit rating, which will reduce the costs of borrowing.

The concessionaire must follow detailed technical specifications based on industry "best practices," addressing such maintenance and operational issues as roadway and drainage maintenance, safety features, toll collection procedures, emergency planning and snow removal. While under public control, the Skyway had no such formal standards, suggesting that the concessionaire is required to uphold the road system to a better standard than the city had.

Sources: Chicago Skyway Lease and Concession Agreement, January 24, 2005; NW Financial Group, *The Chicago Skyway Sale: An Analytical Review*, May 1, 2006, and *Then There Were Two…Indiana Toll Road vs. Chicago Skyway: An Analytical Review of Two Public/Private Partnerships: A Story of Courage and Lost Opportunity*, November 1, 2006.

INDIANA TOLL ROAD

Facts and Figures

- Leased in 2006
- 157 miles of road
- $3.8 billion upfront payment
- 75-year lease
- No revenue sharing
- Annual toll increases capped at highest of 2 percent, Consumer Price Index or per capita GDP increase
- Non-compete clause

In May 2005, facing a $1.8 billion shortfall to build necessary road improvements over the next decade, Indiana policy makers decided to lease the state's toll road. A portion of Interstate 90, the Indiana Toll Road (ITR) runs 157 miles across the northern border of Indiana. From 1981 to 2006, Indiana DOT operated and maintained the ITR, then an underperforming asset that consistently lost money.

Four final bids were submitted for the same 75-year lease contract; the winning proposal of $3.8 billion came from the Australian-Spanish consortium of Macquarie and Cintra, which took operational control in June 2006. With the funds from the lease, the state allocated money toward road projects, paid off existing toll road bonds and established two transportation project funds, including a fully funded 10-year statewide "Major Moves" transportation plan—making Indiana the only state with such a plan. Standard & Poor's also upgraded Indiana's credit rating, lowering the state's cost of borrowing, which reduces the cost of future projects.

The concessionaire is contractually obligated to maintain the road, which the budget-strapped DOT was often unable to do sufficiently. Indeed, if Macquarie/Cintra does not meet the specified level of service standard, it can default, awarding the asset back to the public sector at zero cost. An oversight board, composed of state employees and private citizens, reviews the concessionaire's performance and operations for non-compliance.

Although the concession agreement includes a non-compete clause—if Indiana builds a new highway 20 miles or longer within 10 miles of the ITR, it must compensate the concessionaire's lost revenue—Macquarie/Cintra committed at least $4 billion in improvements to the ITR over the span of the lease and in mid-2006 announced a $250 million toll road expansion, to be completed by 2010. Macquarie/Cintra also introduced electronic tolling along the ITR, which will improve mobility and allow the ITR to bear higher traffic volumes.

Sources: Indiana Toll Road Concession and Lease Agreement, April 12, 2006, www.in.gov/ifa; United States Government Accountability Office, *More Rigorous Up-front Analysis Could Better Secure Potential Benefits and Protect the Public Interest*, February 2008, http://www.gao.gov/products/GAO-08-1052T (accessed February 18, 2009).

projects as determined by a bipartisan commission. At this writing, other federal funding will come through a stimulus package that will include $27.5 billion for road and bridge projects across the country. While that is a substantial sum, it is a far cry from meeting the accumulated need. The National Cooperative Highway Research Program estimates that to maintain only the current highway system, the funding deficit amounts to $47 billion annually.[8]

Given the gap, state policy makers across the country are considering more seriously the idea of turning to the private sector for help. Public-private partnerships, whereby a private company or consortium finances, designs, constructs or operates government-owned infrastructure, represent one such funding mechanism.

In a concession, one type of public-private partnership, the government leases an existing or to-be-built piece of infrastructure to a private company or group of companies (the concessionaire), usually determined through an open bidding process according to government procurement rules. In exchange for the concessionaire's upfront lease fee or a share of future revenue, the government allows the concessionaire to operate the asset, with contract terms detailing maintenance and performance requirements, caps on toll increases and other provisions. Concessions have become more attractive to states because—at least in concept—they allow government to capture the financial benefits of an asset without many of the operating challenges and risks.

Such arrangements are relatively new to the United States, gaining prominence in 2005 when the City of Chicago leased its Skyway to a foreign consortium for $1.83 billion. Policy makers in a number of other states, in search of similar infusions of cash, are debating or have enacted legislation to facilitate public-private partnerships. (See Exhibit 3 on page 16.) The private sector appears to be interested in these partnerships, particularly transportation concessions, because they offer a consistent financial return and represent a stable investment, especially in times of market volatility. Orski describes public-private partnerships as safe havens for long-term investors such as insurance companies and pension funds—including many state pension funds.[9]

A January 2009 report by private equity firms including the Carlyle Group, Morgan Stanley and Credit Suisse estimated that as much as $180 billion in private dollars is targeted for infrastructure investment. Using additional debt to finance projects, that $180 billion could facilitate some $450 billion in projects, the groups assert.[10] Much of that money will be invested in Europe and Australia, where public-private partnerships have long histories. Spain, for example, plans to use them to fund more than one-third of its transportation infrastructure needs over the next decade. The arrangements are also becoming increasingly popular in developing Asia, South America and Africa. India has begun to plug its infrastructure funding gap with more than $35 billion worth of highway partnership projects. And nearly one-seventh of all African infrastructure, including many transportation assets, is funded using these models.[11]

So why isn't that money flooding the American market, especially when investors are looking for stable, reliable returns? Some proponents of the partnerships say there simply aren't enough high-quality deals available from states and cities. "The demand side of the equation is a little weak," says Stephen Goldsmith, director of the Ash Institute of Government at Harvard University and the former mayor of Indianapolis. But part of the reason is that lawmakers are not sold on the idea. Some policy makers worry, for instance, that a private operator might skimp on maintenance or service to maximize profits. Other experts express concern about lengthy leases, skyrocketing tolls, the fate of existing public employees and the economic and national security consequences of ceding control of public infrastructure.[12]

The discussion is complicated, too, by the volatile economy and the fragile credit markets, which are instrumental to piecing together complicated public-private partnerships. For instance, over the last year, what was seen as an innovative $800 million public-private partnership program to rebuild bridges in Missouri was scaled back to a more traditional financial structure, and a proposed concession of Interstate 75 in Florida was on hold as of mid-February 2009.[13]

The debate over public-private partnerships will continue, but given the gap between infrastructure needs and available funding, more of these deals are likely to emerge. "Right now, we have some of the largest infrastructure needs for increased capacity and rehabilitation in the past 70 to 80 years," says John Flaherty, principal for infrastructure at the Carlyle Group. "You have hundreds of billions of dollars of private investment that wants to participate in infrastructure improvements. How that dialogue occurs in the next 18 to 24 months is going to decide where our transportation public finance policy is going for the next 20 to 25 years."[14]

The Pennsylvania Story

In 2006, Governor Edward G. Rendell convened a Transportation Funding and Reform Commission to assess the state's transportation system. According to the commission's final report, Pennsylvania needs $1.7 billion in additional annual transportation funding to maintain the current system.[15] The report recommended that the state make smarter use of existing funds, increase taxes and fees and explore innovative funding mechanisms, including public-private partnerships.

In addition to the $1.7 billion needed annually to support its transportation infrastructure, the state needs more than $14 billion just to complete the maintenance projects it has put off in the past, according to a March 2008 report from the Pew Center on the States' Government Performance Project.[16]

In spring 2007, the legislature heard testimony about all manner of funding sources but was unable to find common ground, says Craig Shuey, executive director of the Senate Transportation Committee.[17] Rising gas prices complicated both the challenges and the solutions; taxpayers were already driving less, and it seemed politically difficult to ask them to pay more at the pump or at tolls. Then Governor Rendell announced his plan to help close the funding gap: lease the Pennsylvania Turnpike for 75 years to the highest bidder, with the notion of investing the money to generate a source of funding to support the state's infrastructure needs.[18] Administration officials said they believed other funding options weren't viable. "We looked at tolling of existing interstates. We looked at raising current gas taxes. We looked at adding fees. And basically every way that we were able to think of was money being taken out of the pockets of Pennsylvania citizens to pay for more transportation," Roy Kienitz, Governor Rendell's deputy chief of staff, told legislators in June 2008. "The real attraction to the governor of a lease of the turnpike is that potentially given just an inflationary series of toll increases, by using the power of the market . . . we could bring billions and billions of dollars to transportation investment."[19]

At the time, support for public-private partnerships, particularly for new construction and expansion projects, had been building in the state Senate. Broad legislation authorizing the use of public-private partnerships appeared poised for easy passage, but opposition to Governor Rendell's turnpike plan stalled that momentum. Lawmakers' concerns centered

Exhibit 1

I-80 AND THE PENNSYLVANIA TURNPIKE

SOURCE: Pew Center on the States, 2009

around the idea of leasing the state's main artery for three-quarters of a century—and that the lease could possibly be made to foreign companies, such as Macquarie, based in Australia, or Abertis, based in Spain.[20]

Amid this stalemate, legislators began asking if there might be a way for the Pennsylvania Turnpike—in its current, state-owned-and-operated formation—to play a larger role in generating transportation funding.[21] The Turnpike Commission proposed increasing tolls on the turnpike for only the sixth time in its history and ask the Federal Highway Administration for permission to toll I-80, another key cross-state corridor.[22] The Turnpike Commission would turn over funds to the Pennsylvania Department of Transportation (PennDOT) for statewide transportation needs—including mass transit, bridge repair and other infrastructure elements that had long lacked reliable funding streams. All told, the proposal, which became known as Act 44, would provide Pennsylvania with $116 billion over a 50-year period if the Federal Highway Administration approved tolling of I-80.[23]

The ensuing debate over Act 44 exposed a number of geographical and philosophical fault lines. Legislators with districts along the I-80 corridor worried that tolls would divert much of the commercial and out-of-state traffic—and the economic activity it generates—away from rural areas along the corridor.[24] Many didn't like the idea of using road money to fund mass transit, a departure from past practice.[25] Meanwhile, some legislators in the southeast part of the state, especially those near Philadelphia, were used to driving on toll roads as a part of their daily lives and thought it only fair that I-80—an aging roadway that costs the state $100 million a year to maintain—carry its proverbial weight.[26] And the promise of putting in place the first predictable funding stream for the state's ailing mass transit systems was enough to win over many urban legislators.[27]

Ultimately, Act 44 passed in 2007 as part of a compromise over the state budget.[28] But to the chagrin of many Act 44 supporters, the transportation bill didn't end the conversation about how to best fund transportation in Pennsylvania. Says Shuey: "Maybe a week later, the governor said, 'It's not enough money and the feds might not approve I-80 tolling. I want to pursue a turnpike lease.' And right off the bat you've got a reversal of the deal that came together on Act 44."[29]

Governor Rendell, doubting that the Federal Highway Administration would decide in Pennsylvania's favor, resurrected his plan to lease the turnpike, a process that culminated in a request for qualifications in September 2007.[30] Fourteen bidders expressed interest. Reflecting on the deal, administration officials acknowledge that they expected a range of bids from $12 billion to $16 billion.[31] But a number of legislators said they believed the bids would be as high as $30 billion.[32]

Only four bidders, including Citi Infrastructure Investors and the Spanish firm Abertis Infraestructuras, remained during the final months of the process; those two companies ultimately merged their proposals into a single bid and competed against Goldman Sachs and Macquarie/Cintra for the lease.[33] When the two highest bidders, Goldman Sachs and Abertis/Citi, submitted bids within 10 percent of each other, the state called them back for a best and final

Exhibit 2
A LONG AND WINDING ROAD

Pennsylvania policy makers have long sought sustainable sources of revenue to support the state's growing infrastructure needs. In recent years, two competing plans have generated contentious debate. One would lease the Pennsylvania Turnpike to a private consortium in exchange for a large, upfront payment, while the other would toll I-80, another key east-west route across the state, with permission from the Federal Highway Administration (FHWA).

1937

As the nation recovers from the Depression, Governor George Earle signs a bill creating the Pennsylvania Turnpike Commission, with plans to draw from New Deal and WPA funds.

1940

The Pennsylvania Turnpike opens.

1960

Construction begins on I-80 in Pennsylvania.

1998

The Federal Transportation Equity Act for the 21st Century is enacted, enabling states to collect tolls for reconstruction and rehabilitation on interstate highways if insufficient revenue is available to meet such needs.

2006

November The Pennsylvania Transportation Funding Reform Commission reports that the state needs $1.7 billion in additional annual transportation funding.

Governor Edward G. Rendell proposes a long-term concession of the turnpike to help fill that funding gap.

December The state solicits information from firms interested in leasing the turnpike.

2007

- **JAN** The Turnpike Commission proposes tolling I-80 as an alternative to leasing the turnpike.
- **FEB**
- **MAR**
- **APR**
- **MAY** Governor Rendell releases an estimate that a turnpike lease would generate $12 billion to $16 billion. Rendell asks the legislature for permission to seek bids.
- **JUN**
- **JUL** Rendell agrees to halt concession plans and support tolls on I-80. The legislature passes Act 44.
- **AUG** The Turnpike Commission makes its first Act 44 payment of $62.5 million to PennDOT.
- **SEP** Rendell revives his plan to lease the turnpike.
- **OCT** The Turnpike Commission submits an application to toll I-80 to the FHWA.
- **NOV**
- **DEC** The FHWA responds to the Turnpike Commission's application, asking for more information.

2008

- **JAN**
- **FEB** Rendell announces support for a bill that would lease the turnpike and repeal tolls on I-80.
- **MAR**
- **APR** Rendell sets an April 30 deadline for bid submissions, then extends it.
- **MAY** Three groups submit bids: Abertis/Citi, Goldman Sachs and Macquarie/Cintra. Macquarie/Cintra drops out of the running. Rendell announces Abertis/Citi's $12.8 billion winning bid for a 75-year lease of the turnpike.
- **JUN** The House Transportation Committee hears testimony from Abertis/Citi, the Turnpike Commission and others about the proposal.
- **JUL**
- **AUG**
- **SEP** The FHWA rejects the Turnpike Commission's application to toll I-80.
- **OCT** Abertis/Citi allow their offer to expire.
- **NOV**
- **DEC**

SOURCE: Pew Center on the States, 2009

offer round. Abertis/Citi raised additional capital from lending institutions that had been supporting Macquarie/Cintra and increased its bid by more than $2 billion in the final round.[34]

Abertis/Citi's winning bid of $12.8 billion was announced in May 2008. Because some of this cash would have been used to pay off turnpike debt, the final amount that Pennsylvania could invest to generate funding for infrastructure needs would have been about $10.2 billion.[35] The Abertis/Citi group intended to raise tolls on the turnpike to pay for the lease. According to terms set by the state, the private operator could have raised tolls on the turnpike annually by 2.5 percent or the Consumer Price Index, whichever was greater.[36] Under the agreement, Abertis/Citi would have paid for improvements to the road, including installation of fiber optics to detect accidents and new toll-collection technologies.

Meanwhile, under Act 44, the Turnpike Commission had begun making payments to PennDOT.[37] The Commission paid $750 million to PennDOT in 2008 and is scheduled to provide an additional $850 million in 2009 and $900 million in 2010.[38] The Commission is relying heavily on debt to make its payments in the near term, until toll increases—and I-80 tolling, if it is ultimately approved—improve its balance sheet.[39] Under Act 44, a 25 percent toll increase went into effect on January 4, 2009, with 3 percent increases scheduled every year thereafter.

Against this backdrop, Governor Rendell asked the legislature to approve Abertis/Citi's $12.8 billion offer. The ensuing months of debate over the turnpike lease proposal were followed closely by the public and the press, and organizations favoring and opposing the concession produced reports to support their claims. Legislators were besieged with information and input from lobbyists, research organizations, media and constituents. "There was fuzzy math; there was misinformation; and there was pure spin," says Representative Rick Geist, Republican co-chair of the House Transportation Committee and a proponent of the deal. "The misinformation was almost to the point that people thought the Spaniards were going to take the highway and move it back to Spain."[40] Legislative debate became stuck around several factors, including the state's financial assumptions and the proposed oversight mechanism, which would have left monitoring of the private operator to a three-member board composed of the governor, the transportation secretary and the budget secretary. When the legislature failed to vote on the proposal by the end of September 2008, the consortium withdrew its bid.[41]

At nearly the same time the proposed lease failed to move forward, the Federal Highway Administration rejected the state's proposal to toll I-80. The agency required that tolls be used to meet legitimate operations costs for the highway itself; the requested tolls would have supported both roads and transit in Pennsylvania.[42] The state may choose to resubmit its request to President Obama's Department of Transportation, but unless it receives a warmer reception there, the $946 million average annual expected funding that Act 44 was supposed to generate over the next 10 years will drop to $450 million.[43]

What happens next? Policy makers in Pennsylvania are closely watching the new Obama administration, both to determine the likelihood that tolls on I-80 will be approved and to see how the state's transportation funding

> "We need a mosaic of funding sources. We're one bridge failing away from a major crisis."
>
> *Rep. Joe Markosek, chair of the House Transportation Committee*

outlook will be affected by the federal stimulus package. With less than $30 billion dedicated through the stimulus to highway improvements, many state officials' optimism about a significant improvement in highway conditions has been tempered.[44] Major federal transportation funding legislation is also due to be reauthorized this year, and policy makers in Pennsylvania and other states are watching to see how that may affect their needs. Pennsylvania leaders are likely to wait for signals from Washington, D.C., before taking dramatic action to address their challenges, but state legislators say that all options must be on the table.[45] "We need a mosaic of funding sources," says Representative Joe Markosek, Democratic chair of the House Transportation Committee and an opponent of the lease. "We're one bridge failing away from a major crisis."

Analysis

Pennsylvania policy makers decided not to lease the Pennsylvania Turnpike in 2008. But the state's infrastructure funding gap persists and Pennsylvania may once again explore such a deal. Public-private partnerships are likely to come up for debate in other states as well, as their massive infrastructure needs continue to lead them toward new and different funding sources.

The complexity and implications of these deals require that state policy makers be as well informed as possible as they pursue them. A variety of papers have been written that can help leaders think critically about public-private partnerships. But much also can be learned from the experiences of other policy makers—those who have decided to enter into a long-term lease and those who opted not to move forward with a deal, as in Pennsylvania's case in 2008.

During the last six months, the Pew Center on the States explored how state policy makers should proceed as they consider a lease of an infrastructure asset, including the questions they should ask and the information they should obtain. We examined those principles through a study of the proposed lease of the Pennsylvania Turnpike. Our work included reviews of the lease proposal and relevant documents, and interviews with state officials and advisors, legislators, representatives of the bidders and transportation and finance experts. Finally, where applicable, we also applied research we conducted on other domestic and international concessions.

The process involved in the consideration of a long-term lease of an infrastructure asset falls into four main stages:

1. Examining the options: the decision-making process;
2. Let's make a deal: the deal-making process;
3. Show me the money: the financial components of a public-private partnership; and
4. Who will mind the store: the oversight and management of such a deal.

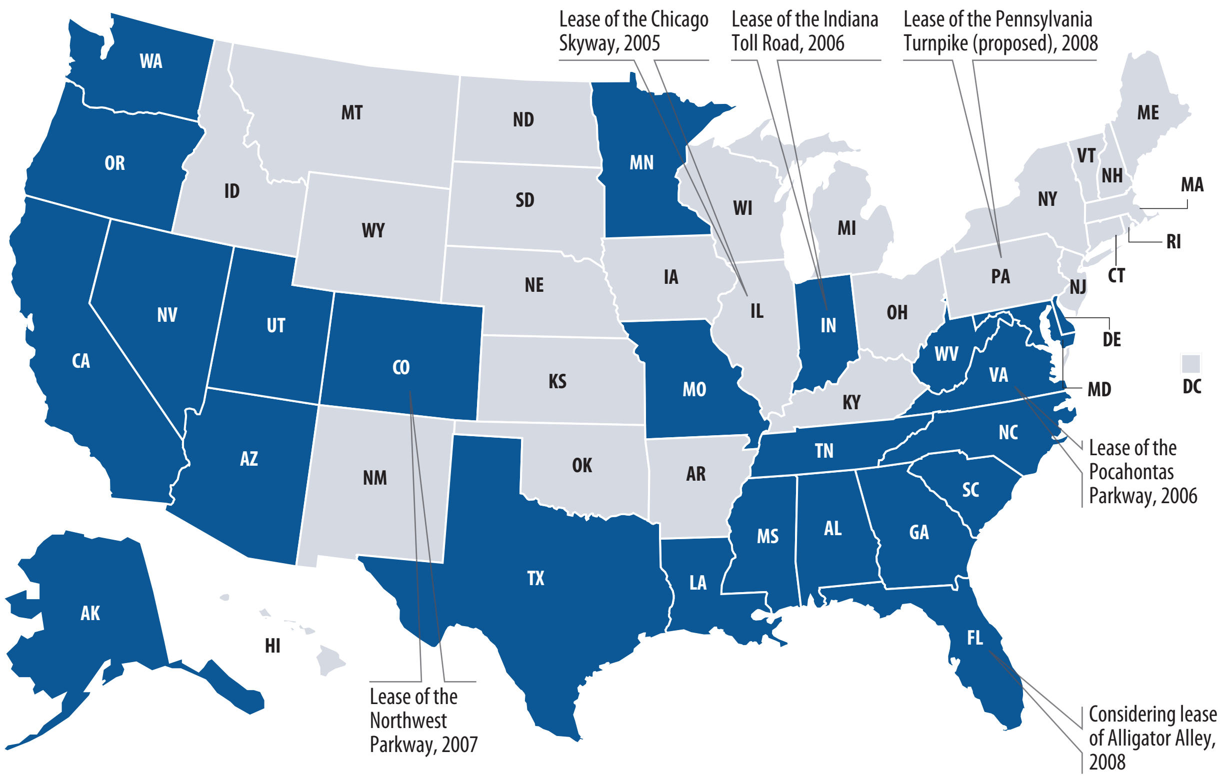
Our analysis describes the key elements of each stage and assesses Pennsylvania's experience as policy makers debated a proposed lease of the Pennsylvania Turnpike.

1. Examining the Options: the Decision-Making Process

States have different ways to raise revenues to meet their infrastructure demands—and a wide variety of factors to consider. At the outset, a state should look at a concession agreement in the context of other methods of raising funds—a system-wide examination of options. Would hiking tolls be feasible without a concession? Is it advisable for the state to take on more debt? Can the gas tax be raised? Should there be a tax on vehicle miles traveled? Has the state examined all possible revenue sources before settling on any particular one? Every funding option will have impacts—on taxpayers; on drivers themselves, as they decide what roads to use and how much

Exhibit 3
PAVING THE WAY

24 states (shaded) have enacted some sort of legislation to allow public-private partnerships for transportation.



SOURCE: Federal Highway Administration

NOTE: Chicago has home-rule authority to lease its assets and as such did not need state legislation to lease the Chicago Skyway. Maryland does not have a statute expressly authorizing highway public-private partnerships; however, it established a public-private partnership program by regulation. Additionally, according to a 1996 state Attorney General opinion, the Maryland Transportation Authority has authority to construct toll roads using certain forms of PPPs.

they drive; on businesses along the perimeters of roads; and on traffic congestion, public safety and long-term environmental conditions.

Assuming that a decision is made to partner with the private sector, there are still many choices to make about the most appropriate deal. Each type of partnership carries its own set of issues and will be more or less appealing depending on the government's goals. Is the main object to raise money? Or is it to provide a more efficient means for service operation? Is an immediate infusion of upfront cash needed to fund current infrastructure plans? Or does the state prefer to ensure a stable, long-term source of maintenance dollars? The complexity of these deals requires that state leaders in both the executive and legislative branches receive substantial education about the advantages and risks of each.

Ideally, the pros and cons of public-private partnerships should be weighed apart from the specifics of any particular deal. This kind of upfront examination is crucial for successful implementation of a public-private partnership. According to Deloitte Research, a firm specializing in private sector analysis, governments interested in pursuing these deals should put into place the legislative and regulatory framework needed to guide the contracts—because "[A] poor legislative and statutory environment will stymie a government's efforts to engage in [public-private partnerships]."[46] Nearly half the state legislatures have approved statutes to authorize public-private partnerships, signaling their willingness to accept the concept should the right deal emerge.[47] (See Exhibit 3 on page 16.)

States considering public-private partnerships should have clear, data-driven answers to these questions:

- Does the government have a clear sense of the funding gap in its infrastructure needs?
- Have all revenue options been examined and compared, both with and without private-sector involvement?
- Is there understanding and agreement about the goals of raising revenue and the ways in which dollars will be distributed among projects or needs?
- Has the legislature adopted enabling legislation to signal its willingness to consider a concession agreement with the private sector?

How Did Pennsylvania Do?

The initial analysis and assessment of Pennsylvania's infrastructure needs happened as it should have. The Transportation Funding and Reform Commission not only identified a massive gap in infrastructure funding in Pennsylvania, but also began a preliminary exploration of options to solve the problem. It recommended that the state continue to employ user-based fees such as motor fuel taxes and motor license fees, but also suggested that options regarding public-private partnerships be explored. The commission counseled that principles should be established to guide such arrangements.[48]

Roy Kienitz, Governor Rendell's deputy chief of staff, says the administration explored many different options to meet the infrastructure funding crisis before concluding that the lease deal was the best option and starting the bidding process in September 2007.[49] The timing of the governor's proposal to lease the turnpike confused many legislators, however, because it came just after passage of Act 44. In addition to pitting privatization advocates against those who believed that public assets should remain in public control, the debate pitted the neighbors of the turnpike against the neighbors of I-80.

The Pennsylvania legislature had been exploring transportation public-private partnerships before the governor proposed leasing the turnpike, but primarily as a vehicle to build new infrastructure. A House task force had also recently taken a broader look at transportation public-private partnerships, travelling to Virginia and Florida. "We were trying to learn from their mistakes and omissions," says Representative Kate Harper, a Republican member of the House Transportation Committee who served on the task force and ultimately opposed the Pennsylvania Turnpike lease.[50]

The lack of agreement between the legislature and the executive branch on a number of basic principles hurt the process. Legislation that would have allowed Pennsylvania to pursue public-private partnerships passed the Senate in June 2008, but it expressly prohibited a lease of the turnpike and failed to progress in the House. The executive branch embarked on the deal, initiating the bidding process and entering into negotiations before the legislature had signaled that it was willing to consider a concession of the turnpike. The backward process caused a plethora of related problems and contributed to a highly politicized debate that left Pennsylvania and the bidders in limbo for months—and ultimately contributed to the failed deal. "There will not be another consortium that will proceed in any state where they have to put their bids in first and then gain legislative approval to lease the asset," says John Durbin, the former executive director of the Turnpike Commission and now a consultant to Abertis.[51] Reconsidering enabling legislation would give lawmakers the ability to debate the pros and cons of public-private partnerships and to educate themselves more thoroughly about these deals before they consider a particular proposal.

2. Let's Make a Deal: the Deal-Making Process

The deal-making process itself can determine whether policy makers ultimately approve a public-private partnership. From initial investigatory studies to assess the value of leasing a piece of infrastructure to the involvement of key decision makers in the process, these steps ensure both that the state enters into the deal well informed and that taxpayers and users are protected.

Due Diligence

Private-sector firms bidding on a public-private partnership lease run their numbers through a variety of studies and models before setting a price with a state. States should do the same. When policy makers are considering a lease, it is important to commission studies that fully inform them about what they should expect from a lease and enable them to negotiate better with bidders. States interested in leasing their transportation infrastructure should conduct a traffic and revenue study; a transportation engineering and cost study that examines the physical characteristics and capacity of the system; and an independent and objective financial assessment. The financial assessment should combine the information generated in the traffic and revenue and engineering studies and consider the value and associated financial risks of the deal in varying circumstances.

The state may already have an inventory cataloguing the significant elements of the road system, such as bridges and toll plazas. Before proceeding with a concession, however, it should develop an accurate asset register—essentially a more sophisticated inventory that includes the current state of repair of each of the elements and what would be needed to keep them in good condition. Such a list, while expensive to develop and maintain, provides a guide to what would be leased to the private operator and clarifies the conditions in which the state expects to receive the road back at the end of the lease.

Policy makers should also contemplate the potential long-term effects of the lease on the environment and the state's overall transportation network. To date, concession negotiations in the United States have resulted in long-term leases, yet the debates about them have focused primarily on short-term issues. It's impossible to know what ground transportation may look like decades from now. It's crucial, though, that policy makers think about how the transfer of a key piece of the state's infrastructure may affect other methods of transportation, and the safety and reliability of the entire network.[52]

As states consider how long they might want to lease their assets, they should give thought to the potential problems that could arise for future generations. Most of the funds are received upfront while the payments to the private sector in the form of tolls are gathered over time and usually increase in real terms. The current generation enjoys most of the gains from the concession while future generations face most of the bill. It's important to remember, however, that future generations also will benefit from an improved and well-maintained road system—assuming this is how the state spends the upfront funds. Using them to improve the finances of the city or state, as in Chicago, can lead to future benefits through lower borrowing costs. Additionally, if the funds are spent on new transportation modes or another type of infrastructure, future generations may benefit.[53]

Bidding Process

If a state is ready to move forward with a public-private partnership, it must conduct the competition and negotiation according to procurement rules, which vary from state to state. The rules often include requirements for the number of bidders, the process for submitting bids and the process for awarding a winner.

Private firms' upfront bids are based, to a large extent, on the parameters the state establishes when requesting bids and on the tradeoffs the parties agree to during the final stages of negotiation. Some of the parameters that drive the value of the bid include the length of the lease term, required maintenance of the piece of infrastructure by the private firm, and the ability of the private firm to generate revenue through tolls or other fees.

Although governments may eye public-private partnerships for the money they generate, these are not inexpensive deals to develop and finalize. Typically, the state retains external advisors, which add to the transaction costs of the deal, as do the multitude of studies conducted and legal fees associated with writing and negotiating the proposal. Of course, the amount of fees varies with every situation.

Risk Management

Dozens of potential issues could materialize over the course of a long-term lease—from a precipitous decline in revenues after a natural disaster to an expensive lawsuit following a multi-car collision—posing risks to both the government and the private operator. (See Exhibit 4 on page 20.) The risks borne by the government will depend, in large part, on decisions made when the deal was formulated. States often see the transfer of risk to a private operator as an appealing element of long-term infrastructure leases. Risk and reward go hand in hand, however. The more risk the state is willing to assume, the larger the payoff the state will derive from the lease, because the private operator is left less vulnerable to potential costly events. In general, the party bearing the risks should also have greater control over what can be done to mitigate them. This factor, too, should be taken into account when structuring a deal.[54] Contracts should generally identify and describe the different circumstances that might arise—and who bears responsibility for dealing with them. For example, both the Indiana Toll Road and the Chicago Skyway deals provide protections to the concessionaire if a future legislature takes some action that adversely affects them, such as providing replacement

Exhibit 4

COMMON PUBLIC-PRIVATE PARTNERSHIP RISKS

RISK TYPE	DESCRIPTION	ALLOCATION	MITIGATION
Policy / Political Constraints / Support	• Uncertainties regarding public policy and change in law • Regulatory uncertainties • Funding support	Public and private	• Persuasive and supported arguments for project • Early regulatory agency involvement • Public relations and citizen/policy maker education campaign • Community engagement and buy-in strategy
Market Revenues	• Traffic and revenue below projections • Competing/alternative projects • Excessive capital maintenance • Insufficient revenues to fund ongoing operations and maintenance (O&M)	Public and private (funders/ lenders)	• Investment grade traffic and revenue studies accepted by rating agencies • Adequate debt coverage ratios • Adequate reserves • Credit enhancement, insurance • Toll adjustment flexibility • Careful budgeting processes and O&M controls • Non-compete protections
Operations & Maintenance Costs	• Excessive costs of operations • Excessive capital maintenance expenditures • Unpredictability of costs	Public and private	• Non-recourse financing • Minimum guarantees • Toll adjustment flexibility • Credit enhancement, insurance • Careful budgeting processes • Capital asset replacement assurances • Warranties, incentives and penalties • Financially viable private partners • Use of private O&M contract • Use of fixed price/guaranteed maximum pricing, with escalations and adjustments over time
Liability	• Construction defects • Day-to-day operational • Subcontractor claims • Environmental	Public and private	• Warranties • Insurance • Well-thought out allocation of liability in contract based upon party best able to control and mitigate • Innovative insurance products

SOURCE: Federal Highway Administration, December 2007

compensation if the action causes the value of the concession to the private operator to drop.[55]

For private operators striving to generate profits on leased, tolled roadways, competition in the form of newly built, free roads nearby is not always welcome. States willing to commit to non-compete clauses in which they agree not to construct competing transportation corridors—roads or transit—can sometimes draw higher bids from private operators. The two deals often cited as the precursors to the Pennsylvania proposal, Chicago and Indiana, differ in this area. Chicago did not agree to a non-compete clause and is in fact expanding highways near the Skyway. But if Indiana builds a highway 20 miles or longer within 10 miles of the Toll Road, the state must compensate the private operator for lost revenue. Indiana opted for a shorter lease than Chicago; the state's acceptance of a non-compete clause may have helped keep its upfront concession payment high. (For more on Chicago and Indiana, see the sidebars on pages 6 and 7.)

The tensions between public and private interests can be seen in each party's desired level of flexibility. Understandably, the private operator often wants to minimize unknowns through the life of the lease by leaving as little opportunity for renegotiation as possible, while the government may prefer to include triggers—passing certain milestones in the contract, for example—that allow the parties to change the terms of the deal. To clarify both the true value of the agreement and the relationship the government and private operator will enjoy, these flexibilities and the process by which they will be resolved should be agreed upon prior to signing the lease.

Transparency

A 2007 report by the Federal Highway Administration set out a number of factors critical to the success of a concession deal. Stakeholder involvement, consultation and support—openness during the deal-making process—are paramount. Strong political leadership, if well-informed, can minimize misperceptions surrounding a concession deal.[56]

Transparency in concession negotiations does not necessarily mean sharing every piece of information with everyone interested in it at all times. For example, a group representing the trucking industry might want to know details of negotiations over proposed toll increases to lobby more effectively against a lease. The state might withhold some information to protect bidders' company secrets or decline to share additional information with eliminated bidders.

Balancing stakeholders' needs for information with the state's own needs to protect its negotiating stance is delicate and sometimes difficult for states to achieve, but it is important for policy makers to remember that a lack of transparency—even a perceived one—can weaken the proposal's chances. In 2003, Texas enacted legislation authorizing public-private partnerships to build the Trans-Texas Corridor, and construction began. Just four years later, a two-year moratorium on all public-private partnerships was passed after the legislature charged that the state's transportation department had withheld information about the deals.[57]

States considering public-private partnerships should have clear, data-driven answers to the following questions:

- Did the state complete appropriate due diligence prior to proposing a lease of the roadway?
- 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 the 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 concession is allowed?
- How does the proposal take into account the potential impact on congestion, pollution and land use?
- 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?
- 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?

How Did Pennsylvania Do?

Due Diligence

Pennsylvania conducted extensive legal, financial and comparability analyses while considering leasing the turnpike to a private operator. The state's financial projections were based in part on studies conducted by the Turnpike Commission, including a May 2008 financial report required by Act 44 that was written by Public Financial Management, an independent advisory firm. Each study relied on independent traffic estimates, lists of operating and capital projects, and revenue and toll estimates supplied by the Commission. In addition, myriad other reports and analyses were produced on the lease proposal, including some commissioned by the legislature and others published by research and advocacy groups. (The reports, which came to a variety of conclusions, may have served to add questions, rather than answer them.[58] For example, "For Whom the Road

GROUND RULES

The Regional Plan Association, an independent regional planning organization dedicated to economic competitiveness issues in the New York-New Jersey-Connecticut region, suggests sensible ground rules to help protect the public interest throughout a deal-making process.

The first rule deals with full disclosure during the deal-making stage. Given that concessions fall outside the normal business process, the group suggests that state governments should aim for a higher degree of transparency and disclosure to encourage public support. It recommends that governments should:

- Disclose publicly what funding will be lost that might need to be replaced with other government funding if revenue from the asset is no longer collected by a public agency.
- Disclose the full text of any contract used to establish the public-private partnership.
- Disclose, early on, the future allowable toll schedule, including starting toll rates and the degree to which variable tolls may be used in the future to help manage congestion and performance.
- Disclose any non-compete agreements or other contract language potentially impacting the expansion of other transportation infrastructure.
- Disclose the current performance, operation, maintenance, environmental and labor standards on the asset in question.
- Disclose the performance, operation, maintenance, environmental and labor standards to which the private sector will be held and how the contracts will ensure high performance operation and management of the affected corridors.
- Hold legislative hearings and town hall meetings on the subject, and allow sufficient time for meaningful public input and legislative review.
- Disclose transactions costs, including fees to investment banks, financial advisors, lawyers and other professionals retained by the public sector to analyze and craft the partnership.

Source: Regional Plan Association, *Proceed With Caution: Ground Rules for a Public Private Partnership in New Jersey, January 8, 2007,* 13-14, http://www.rpa.org/pdf/rpappp01082007.pdf (accessed February 18, 2009).

Tolls," a report commissioned by the Democratic Caucus of the House Transportation Committee, spends five pages critiquing the assumptions of a competing report by Morgan Stanley, which advised the administration in the deal.[59])

Bidding Process

The bidding process was conducted according to state law and was fully competitive within the scope of responsible bidders; companies large and sophisticated enough to manage the concession were given multiple chances to refine their offers to meet the state's requests and requirements. Fourteen original bidders was a sufficiently large group; the addition of the best and final offer round allowed for a competitive process and the highest proposed upfront lease payment.

Risk Management

In its allocation of risk and reward, the Pennsylvania deal was quite simple. All the money was to be received as a single one-time payment and there was no arrangement for revenue sharing down the road. Unlike the Indiana Toll Road deal, but similar to the Chicago Skyway, the agreement did not contain a non-compete clause, leaving Pennsylvania free to construct a competing road. Additionally, the concessionaire bore the risk if revenues came in lower than anticipated. Although Turnpike Commission Vice Chair Tim Carson told state lawmakers that the risk to the concessionaire was minimal because of the turnpike's historical, predictable cash flows, ridership on the turnpike fell in 2008.[60]

Carson also noted the state's inability to quantify all the risks that might arise during the life of the lease. "Over a 75-year period, I think we can all agree that there's the risk of the unknown unknowns," he told legislators. "If we had done this 75 years ago, what would we have put in the concession agreement? I think we could all agree we wouldn't have gotten it all right. And we won't expect to do it now."[61]

Ultimately, every long-term concession deal will pose questions about risk and flexibility that cannot be easily or immediately answered. It is difficult to know how the needs of drivers and businesses using the turnpike may change over the next several decades. The governor's office believed, however, that under the lease proposal, the state could have forced Abertis/Citi to make changes to the turnpike that policy makers deemed necessary, and Abertis/Citi would have been allowed to increase tolls as a result.[62] Abertis/Citi agreed that such changes—along with the associated increase in toll revenue—could be negotiated.[63]

Transparency

The Pennsylvania deal was rare in that a bidding process occurred before the legislature had enacted enabling legislation broadly authorizing public-private partnerships. "There was never a chance for the legislators to really buy in even if they'd wanted to," says Shuey, executive director of the Senate Transportation Committee. "The natural response of the general assembly, having been ignored, is to get its fur up and lash out a bit."[64]

Pennsylvania officials acknowledge that they limited stakeholder involvement—including with members of the legislature and citizens—during the negotiation phase of the proposed lease. They said they held back information about the bids and the content of the lease to ensure the competitiveness of the process and freedom from potential outside interference.[65]

In the end, the perceived lack of transparency from the governor's office may have hindered the deal's chances. Some legislators felt they lacked sufficient information or were not involved enough in the process to persuade them in favor of the lease. In a March 16, 2008, statement, Roger Madigan, then the Republican chair of the Senate Transportation Committee, said: "The complexity of this issue and the extremely limited amount of information that has been flowing to the public and the General Assembly creates a very steep learning curve for everyone outside of the administration in dealing with a significant public policy decision."[66]

The process might have benefited from additional information sharing, at least with the legislature. But, as noted earlier, a number of legislators who had supported Act 44 and considered it the state's preferred plan were confused when the governor resurrected the turnpike lease and were disinclined to favor it. Their transparency concerns may have given them another reason to oppose it.

3. Show Me the Money: Financial Analysis

Long-term infrastructure leases are complex deals with serious implications for drivers, businesses, communities and a state's economic future. But the money usually grabs the headlines—billion-dollar headlines in the cases of the Indiana and Chicago leases. Behind those dollar signs are assumptions about the asset's worth, expected investment returns and ability to generate new revenue, and how the monies will be spent. Both a state and a private operator use these assumptions to decide whether the deal is worth it.

Revenues

The financial assumptions and rules built into a public-private partnership from the outset determine how much money a lease generates for a state and how those funds should be spent. Some governments want upfront, one-time payments to last until the lease expires, but others are content to use them as a shot in the arm to upgrade their infrastructure dramatically and quickly. (See Exhibit 5 on page 29.) In Indiana, for example, the $3.8 billion upfront payment for the Toll Road is being used to pay outstanding toll bonds and to fund the "Major Moves" program, the state's 10-year transportation plan. A large upfront payment does not drive deal making in all cases. Sometimes a state opts for a smaller first payment with the promise of additional revenue over future years. The Pocahontas Parkway in Virginia, for example, features a revenue-sharing agreement. If the concessionaire achieves a pre-tax, internal rate of return of 6.5 percent, the Virginia Department of Transportation is entitled to 40 percent of excess toll revenues. This entitlement increases to 80 percent if the internal rate of return equals 8 percent.[67] Other times, governments pursue the deals because they believe the private sector can operate the road better.

Looking at the concession prices in France versus those paid for the Chicago Skyway and the Indiana Toll Road, researchers Germa Bel and John Foote concluded that the American deals were designed to maximize the upfront payment the government received, with longer deal lengths and more aggressive toll-setting allowances.[68] In contrast, European concessions tend to be driven less by financial gain and more by the search for operational efficiencies.

THE FRENCH DEAL-MAKING PROCESS

France - Autoroutes de la France

Facts and Figures

- Leased in 2006
- 4,654 miles of road
- Three separate deals at prices of $14.12 billion, $10.65 billion and $28.16 billion[1]
- Leases expire in early 2030s
- Annual toll increases are limited to 70 percent of the Consumer Price Index, which means that tolls actually decline in real terms

France entered into three separate concessions of its highway system in 2006. Each bidder had to provide a business plan and an industrial (enterprise) plan. With the requirement of these two documents as part of the bidding process, the French government required a higher level of transparency, especially for the financial assumptions adopted by the bidder. This step has not been required in any of the existing American concessions.

Within the business plans the bidders were required to disclose their assumptions about traffic volumes, toll revenues, required maintenance and capital expenditures/ investments and the financial structure (level of debt/equity). The industrial plans disclosed details about how the bidders would approach a variety of issues related to the roads, including how they would be operated and maintained, and how management and labor questions would be addressed. Both plans were subject to review, comment and examination of reasonableness by the French government and formed an integral component of the bid-evaluation criteria.

Source: Daniel Albalate, Germa Bel and Xavier Fageda, *Privatization and Regulation of Toll Motorways in Europe* (Irea Working Papers, University of Barcelona, Research Institute of Applied Economics, March 2007).

[1] Assuming exchange rate at the time of 1 Euro to $1.18.

States pursue long-term infrastructure leases with different revenue targets and needs in mind. But if they intend to save any of the principal for future use, they must assume interest income into their calculations of the lease's value. These assumptions include everything from the state's funding needs and obligations to the expected rate of investment return in 50 or 75 years—if policy makers have a goal of stretching the monies that farû

For a private firm, the main value proposition rests in its ability to raise revenues through tolls. The most significant reason for the relatively high prices paid for the Chicago Skyway and Indiana Toll Road is that the private operators can usually raise tolls at a faster rate than the governments had historically increased them.[69] In Indiana, for instance, the average toll paid more than doubled within two years of the concession's start.[70] In all of the American road concessions, the agreed-upon toll escalation rates guarantee that, at a minimum, the real price of tolls will remain constant or increase. In Europe, in contrast, toll increases are functions of a combination of inflation, productivity improvements, quality of service and errors in forecasted traffic volumes. For example, in France, the concessions of its motorway system arrange for the real price of tolls to fall over the concession term, because rates are set to rise at only 70 percent of inflation.

The concession agreements seen to date in the United States stretch over a longer time frame—generally 75 or 99 years—than in Europe, where they tend to last 20 or 30 years. The principal reason for the difference is the desire in the American deals to attract the highest possible upfront payments. The concessionaires are more willing to offer higher bids if they will have a longer term over which they can collect—and raise—toll revenue. Some experts also believe that other factors, such as tax laws, drive American concession lengths. If the concessionaire is deemed the "constructive owner" of the highway by virtue of controlling the road beyond its usable life, depreciation expenses from the highway can be written off on federal income taxes.[71]

Additional financial considerations are factored into the deal's worthiness by both the private and public sectors. For example, the private sector often faces higher borrowing costs. Unlike the public sector, it cannot issue tax-exempt debt. Some proponents of such concession deals contend, however, that the higher costs of financing are offset by improved operations and capital efficiency, investment returns and often the willingness to raise tolls higher and more frequently than the public sector. With regard to all questions of the cost of capital, policy makers should not base their decisions solely on tax preferences or exemptions, or assume that it is always more costly for private operators to borrow—consider that state interest rates for municipal bonds have increased substantially over the last year—just as policy makers cannot assume that the private sector will necessarily operate more efficiently than the public sector.

Expenditures

The Regional Plan Association, an independent regional planning organization dedicated to economic competitiveness issues in the New York-New Jersey-Connecticut region, suggests that the revenues obtained from a concession should be used to ensure the future of the state's transportation capital program and improve the government's long-term fiscal stability.[72]

Chicago will spend the majority of its lease payment by 2013, eight years after it struck the Skyway deal. Although none of the funds were allocated to transportation-only projects, they enabled Chicago to pay off $463 million of existing Skyway debt; refund $392 million of long- and short-term general obligation debt issued by the city; create two reserve fund accounts, one of which generates $25 million in annual interest for the city; and start a neighborhood funds account. Those moves led to Standard & Poor's raising Chicago's general obligation bond rating, which lowered the city's cost of borrowing in the future. In Canada, Toronto's decision makers took a shorter-term view after enacting the concession of Highway 407. Each resident of Ontario received a $200 payment from the concession proceeds, with the remaining funds placed in the province's general revenue fund—which can be spent on non-transportation needs. These funds were not dedicated to long-term investment or any specific capital projects.

States considering public-private partnerships should have clear, data-driven answers to the following questions:

- How does the proposed term of the lease compare to other concessions? Does the term make sense for the state's goals?
- Should the state pursue a lease that maximizes the upfront payment or opt for a different model that might include revenue sharing?
- Will the upfront funds from the concession be used to create a sustainable source of revenue for the future? If so, how far into the future will they last?
- How should the revenue from the concession be spent? Who should decide?
- How were the state's financial assumptions built? Are they reasonable?
- How do tax treatment and borrowing costs affect the government and the proposed concessionaire's financial assumptions?

How Did Pennsylvania Do?

The financial terms of the proposed turnpike lease fell short in several ways. First, the state assumed it would be able to earn more interest income than seems feasible. The turnpike lease would have generated less money annually for infrastructure investment than Act 44 if tolling on I-80 were allowed. Finally, the state did not specify how the lease proceeds would be spent, and the composition of the proposed board that would make those decisions raised questions among lawmakers.

Revenues

Pennsylvania would have received a $12.8 billion upfront payment from Abertis/Citi. After paying off turnpike debt, the state expected to have $10.2 billion left to invest. It assumed a 12 percent annual return on its investment; that income would have been used to pay for infrastructure improvements.

A number of observers questioned the state's assumption of an annual 12 percent return, which Governor Rendell's administration cited as the 20-year average annual return of the Pennsylvania State Employees' Retirement System (SERS). "We were asked [by the administration] to use 12 percent because that was what SERS had achieved over the last 20 years," says Rob Collins, managing director of the infrastructure banking unit of Morgan Stanley, the state's advisor.[73] SERS itself does not use that average to forecast its future returns but instead uses 8.5 percent, which is higher than the median 50-state assumption of an 8 percent return on states' pension fund investments as of December 2007, according to research by the Pew Center on the States.[74] In an October 2008 assessment of the proposed lease, Moody's Economy.com reported that Pennsylvania would have needed an average annual return of 9.8 percent to fund $1 billion in annual infrastructure spending.[75] That return would be difficult to achieve, according to Moody's; the recent decline in the stock market affirms that belief. In fact, had the deal gone through, it is difficult to know how much the state would have lost on its investment in the last year, because although it used the pension system returns as an assumption, it would not have been required to invest the concession payment in that particular fund.

Lawmakers considered the lease in comparison to Act 44, which is projected to generate more than $1 billion annually for the state if tolling is allowed on I-80—but only $450 million a year if it

Exhibit 5

SHOW ME THE MONEY

While most American concessions run between 75 and 99 years, their upfront payments differ substantially. Chicago and Indiana allowed tolls to be raised more aggressively than the Pennsylvania lease would have allowed, and the Northwest Parkway and Pocahontas Parkway deals traded smaller upfront payments for the possibility of revenue sharing in future years.

DEAL	YEAR ENACTED	ROAD LENGTH (MILES)	LEASE LENGTH	REVENUE SHARING	UPFRONT PAYMENT
Pennsylvania Turnpike (proposed)	2008 (proposed)	531	75 years	No	$12.8 billion
Chicago Skyway	2005	7.8	99 years	No	1.83 billion
Indiana Toll Road	2006	156.9	75 years	No	3.8 billion
Pocahontas Parkway (Virginia)	2006	8.8	99 years	Yes	548 million
Northwest Parkway (Colorado)	2007	11	99 years	Yes	543 million
French concessions[1]	2006	4,654	30 years	No	53.9 billion[2]
Highway 407 – Toronto, Canada	1999	74	99 years	No	2.5 billion[3]
Autostrade – Italy	1999	2,118	29 years	No	6.7 billion[3]

1. Includes three separate concessions of the French autoway system: Autoroutes Paris-Rhin-Rhone; Societe des Autoroutes du Nord et de l'Est de la France; and Autoroutes du Sud de la France. Lease length is approximate. 2. Assuming exchange rate at the time of 1 Euro to $1.18. 3. Assuming 1999 exchange rate.

SOURCE: Pennsylvania Turnpike Concession and Lease Agreement, www.dot.state.pa.us/internet/paturnpikelease.nsf/PATurnpikelease; The Chicago Skyway Sale: An Analytical Review, NW Financial Group (May 1, 2006); Indiana Toll Road Concession and Lease Agreement (April 12, 2006); Transurban open letter, "RE: Pocahontas Parkway Association Public-Private Partnership" to the Virginia Department of Transportation (May 2, 2006); United States Government Accountability Office, More Rigorous Up-front Analysis Could Better Secure Potential Benefits and Protect the Public Interest (February 2008); Germa Bel And John Foote, working paper, Comparison of Recent Toll Road Concession Transactions in the United States and France (November 2007) available at http://www.pcb.ub.es/xreap/aplicacio/fitxers/XREAP2007-11.pdf (accessed January 13, 2009); Daniel Albalate, Germa Bel and Xavier Fageda, Privatization and Regulation of Toll Motorways in Europe (Irea Working Papers, University of Barcelona, Research Institute of Applied Economics, March 2007); Giorgio Ragazzi, "Are highways best run by concessions? The Italian experience," World Transport Policy and Practice, 12, No. 2 (2006).

isn't. If the invested concession payment achieved a rate of return of less than 12 percent, the lease deal would raise less money for Pennsylvania than Act 44 with I-80 tolling, but more without it. (See Exhibit 6 on page 30.)

Pennsylvania's financial assumptions were overly optimistic. It is unlikely that the state would design another proposal using such a high rate of return in today's fiscal climate. Without such an assumption, however, the state would need a larger upfront payment that could generate sufficient income to support its infrastructure needs. It could shift some of its other parameters—to allow for larger toll increases, for example—to attract higher upfront bids.

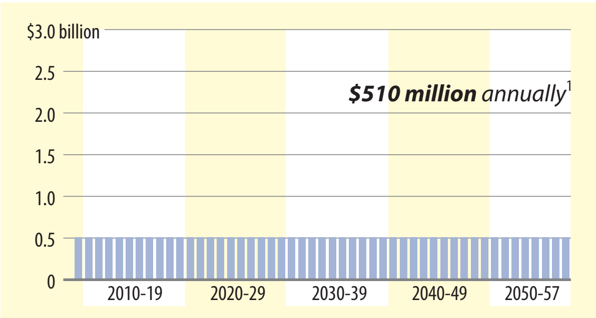
Because the Rendell administration capped future toll increases prior to requesting proposals, Abertis/Citi could have raised tolls annually by 2.5 percent or the Consumer Price Index, whichever was greater. That cap likely factored into the bids coming in lower than expected, leading some policy makers to question whether the deal generated sufficient value. "From Senator White's perspective, the number was so underwhelming that it sunk interest in the deal right out of the gate," says Joe Pittman, chief of staff for Senator Don White, a Republican who serves as vice chair of the Senate Transportation Committee and opposed the lease.[76]

The state's decision to pursue a 75-year lease of the Pennsylvania Turnpike would have afforded Abertis/Citi preferred federal tax treatment, which generally allows for a higher upfront payment from the concessionaire. According to the turnpike's financial statements, its depreciation

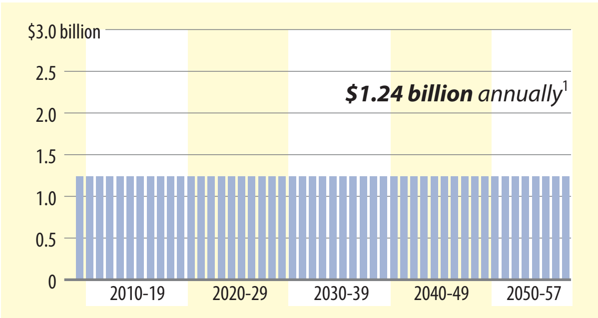
Exhibit 6
MONEY MAKERS

Pennsylvania policy makers compared a proposed lease of the Pennsylvania Turnpike with Act 44, which would provide new transportation funding through increased tolls on the turnpike and new tolls on I-80. Without the I-80 tolls, which have not been approved by the Federal Highway Administration, Act 44 would likely generate less funding for transportation than investing the principal from a lease. But with I-80 tolls, Act 44 would produce more revenue.

5% LEASE-INVESTMENT RETURNS

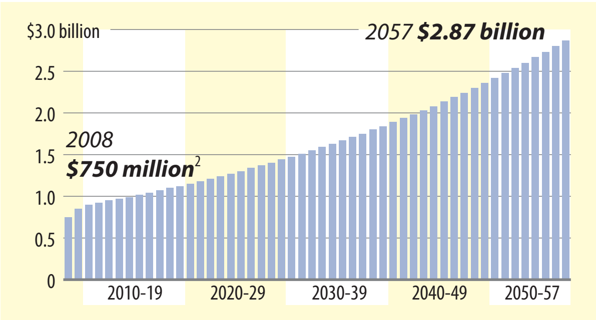


12% LEASE-INVESTMENT RETURNS

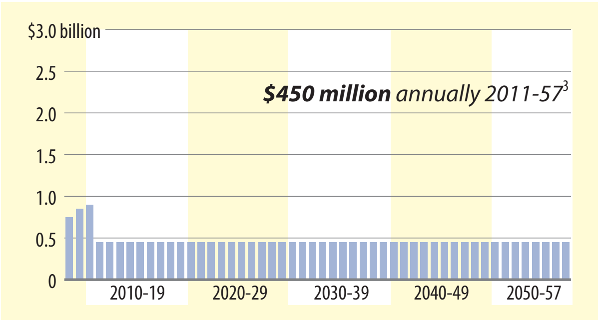


1. 5 percent and 12 percent annual returns assuming the state would have invested an estimated $10.2 billion principal from the upfront payment on a lease of the Pennsylvania Turnpike and would not spend the principal over the term. The state used a 12 percent assumption because the State Employees' Retirement System had achieved 12 percent annualized returns over the previous 20 years. Morgan Stanley, the state's advisor, also modeled 5 percent annual returns as a point of comparison. The chart runs through 2057, the lifespan of Act 44.

ACT 44 WITH I-80 TOLLING



ACT 44 WITHOUT I-80 TOLLING



2. The Act 44 payment schedule included payments of $750 million, $850 million and $900 million in 2008, 2009 and 2010, respectively, which would be generated through increased Pennsylvania Turnpike toll revenue and debt. Payment schedule assumes a 2.5 percent increase each year after 2010, financed in part through new tolls on I-80.

3. The Act 44 payment schedule included payments of $750 million, $850 million and $900 million in 2008, 2009 and 2010, respectively, which would be generated through increased Pennsylvania Turnpike toll revenue and debt. If I-80 tolls are not in place in 2011, the annual Act 44 payments will drop to $450 million each year.

SOURCE: Pennsylvania Turnpike Commission; Pew Center on the States calculations

value was more than $200 million in 2007. The Turnpike Commission, as a public entity, pays no federal income taxes and thus receives no federal tax benefits to offset that depreciation.[77] While we cannot quantify how much of the Abertis/Citi bid stemmed from the tax savings the companies would have enjoyed under the deal, it was almost certainly a factor in their calculations.

Expenditures

Policy makers in Pennsylvania wanted the $12.8 billion lump-sum payment from Abertis/Citi to last as long as possible, preferably the full 75 years of the lease. How long the funds would have lasted would have depended on the investment returns and expenditure strategy; the lease proposal did not set out a timetable or plan for the state to spend the proceeds. While the administration estimated that the principal would generate more than $1 billion a year to pay for infrastructure improvements, the state instead could have opted to spend the principal over a shorter period of time, enabling a more significant short-term infrastructure investment, as is planned in Indiana.

During legislative hearings, several experts—some who favored the lease proposal and others who opposed it—agreed that the principal would likely run out in about 15 years.[78]

The lack of a well-articulated plan for how to spend the proceeds also was a cause for concern to lawmakers. In both the Chicago Skyway and Indiana Toll Road leases, plans for spending the proceeds were set out from the start; in Pennsylvania, a three-member board of the governor, the budget secretary and the transportation secretary would have been responsible for determining how much would be withdrawn and spent and what it would be spent on. An informal consensus was reached among the governor and other parties to commit to the same proportion of 56 percent highway funding and 44 percent mass transit funding, as in Act 44, but some legislators doubted that future governors and boards would adhere to that. "You know that would be the first pot of money that we'd grab," says Representative Harper.[79] States should plan for how to spend lease proceeds. Although those details were not stipulated in the original agreement, Pennsylvania legislators could have added them to the legislation.

4. Who Will Mind the Store? Oversight and Service Provision

Whether it's running a government-funded mental health program or operating a road, a contract that calls on the private sector to perform a traditional government task does not diminish public responsibility. A strong oversight role for the state is critical. Unfortunately, oversight is where many contracts fall short. Contract oversight practices have been faulted by auditors in recent years in such states as Maryland, Nevada, Texas, Mississippi, California, Kentucky, Missouri and New York. These reports show that inadequate oversight of contractors has led to steep declines in service, noncompliance with contract requirements and lengthy delays in deliverables.[80]

A long-term lease of an infrastructure asset is just that: a lease, not a sale. The government remains the owner and is still accountable to taxpayers for the condition of the asset. It must ensure the private operator is providing the quality and quantity of services promised, mitigate risks that arise and bring the contract to a healthy close, whether because the contractor defaults or the deal ends as scheduled. The lease agreement should set out a framework for how the state will manage the contract and ensure the private operator adheres to its obligations.

> "Awarding a contract is only a first step. If the agency fails to focus on contractor performance, then all the effort spent on the front end of the acquisition process is at risk."
>
> *George Mason University and the IBM Center for the Business of Government.*[81]

Because a lease may be a completely new type of arrangement, some governments will set up a new and formal mechanism for managing it. For example, as part of Indiana's concession agreement, an Indiana Toll Road Oversight Board was created. Composed of state employees and private citizens, the board reviews the performance and operations of the concessionaire and identifies areas of non-compliance. It meets at least quarterly, discussing issues ranging from traffic incidents and concerns raised by residents to the implementation of electronic tolling.[82] In Chicago, the agreement stipulates that independent engineers be hired to oversee all construction projects in which the concessionaire engages. In both the Chicago Skyway and the Indiana Toll Road concessions, the private operator must reimburse the state for oversight and monitoring costs.

The government's oversight ability depends heavily on the kinds of arrangements that were agreed upon during the deal-making process—the performance measures embedded in the contract and stipulations about the way performance will be reported, either to the government or to taxpayers. In general, performance measures in lease agreements are usually based on the Highway Design Manual, which defines levels of service. These focus on traffic flow and the experience of the road user. For example, the Indiana Toll Road agreement says the operator must improve the service level when traffic slows on urban roads or starts to clog traffic on rural roads. Frequently, performance measures are task-specific; in Indiana, for example, a pothole must receive a temporary patch within 24 hours after it has been detected, and permanent repairs are required in a month.[83]

As governments gain experience overseeing public road leases, they may want to focus more on ensuring ultimate results than controlling how the private operator achieves them. For instance, a periodic check on whether the road is free of debris would be more valuable than a report on how many times it has been swept. But identifying outcomes does not guarantee they will be achieved. A contract also must include benchmarks measuring adequate progress toward those outcomes and an enforcement mechanism, such as financial penalties, if the standards aren't met. Beyond enforcement mechanisms to ensure compliance, governments also can build in incentives to spur private operators to go beyond basic contract obligations. For example, with Italy's Autostrade—the concession of more than 2,000 miles of the country's highways—road quality is a big factor in determining when and by how much a private operator can increase tolls. In fact, the operator has a built-in incentive to go beyond general upkeep: if it improves road quality, it is allowed to increase tolls by an amount greater than the rate of inflation.[84] In the United States, the toll-setting regimes adopted thus far have not been designed with the same flexibility or incentives to allow an operator to charge higher tolls in exchange for greater improvements.

Typically, road leases offer numerous opportunities for early termination of the deals. In the most extreme case, a government can declare the private operator in default of the agreement and move to end it. There also may be good reasons that a government would want the opportunity to buy itself out of the agreement. For example, the lease concession for the Pocahontas Parkway in Virginia gives the state Department of Transportation the right to end the agreement "for public convenience," as long as it makes a fair market-value payment, provides a guaranteed 10.5 percent rate of return to its contractor and pays any outstanding debt.[85]

If the lease runs its agreed-upon course, future leaders will need to make sure the road is in good condition when it is handed back to the state. These "hand-back" conditions are generally stipulated in the contract, with pre-set standards for the road's physical and financial condition.

States considering public-private partnerships should have clear, data-driven answers to the following questions:

- What mechanism for oversight does the lease set out? Is it strong enough to protect the state's interests?
- Within the terms of the contract, has a level of service been determined? Is there a system to set and measure performance criteria?
- Are there any penalties if the road fails to meet minimum standards? Are they large enough to discourage poor performance by the concessionaire?
- What are the conditions for the state to buy back the lease from the private operator? What provisions are included in the deal in case of termination or default? Do they provide the state with sufficient flexibility?
- What are the deal hand-back conditions? Will the state receive a road in the same, or better, working and financial order than at the start of the deal?

How Did Pennsylvania Do?

The Pennsylvania Turnpike lease proposal included detailed service requirements based on the turnpike's current maintenance standards, and both the maintenance agreement and penalty sections of the lease set penalties if Abertis/Citi failed to meet those standards. But while the lease agreement specified performance criteria in great detail—such as the number of times that a ramp needed to be swept and the speed with which roadkill had to be cleared—the measures generally focused on prescribed tasks rather than desired results.

It would have been crucial to ensure that Pennsylvania had the capacity to monitor the turnpike operation on an ongoing basis throughout the entire 75-year period of the lease. The agreement called for annual audits of the road by PennDOT—the costs of which would have been reimbursed by Abertis/Citi—but it did not further specify how performance measures would be monitored or how the state might keep tabs on rider complaints or satisfaction with the road. The proposed oversight structure involved a three-member board consisting of the governor, the budget secretary and the transportation secretary, with no representation or power of appointment from the legislature and no representation from the public. Some state lawmakers said they were hesitant to move forward with the deal because they would have little voice in decisions made about the turnpike after it was signed.[86] It is worth noting, however, that the legislature could have modified the oversight structure in the legislation.

Although the Pennsylvania proposal did not specify conditions for a buyback—one missing element that could have limited the state's flexibility over the course of the lease—it did handle most of the lease-end details appropriately. The lease would have allowed the concession to revert back to the public sector in the event of a default or bankruptcy and provided a number of ways to declare Abertis/Citi in default, such as a failure to maintain the road to the standards specified in the contract. After 75 years, when the lease came to its natural end and the system was to be handed back to Pennsylvania, the contract required the road to be "in good order condition and repair, according to maintenance standards," and free of any liabilities the state would have had to assume, such as ongoing lawsuits or debt.

Conclusion

Pennsylvania and other states have accumulated hundreds of billions of dollars in infrastructure needs. In the current economic crisis, with traditional funding mechanisms failing, states need new sources of money. Public-private partnerships, although controversial, are certain to be part of the debate. Billion-dollar payments are attractive and can facilitate substantial infrastructure investments. But before state policy makers hand over control of valuable assets to private operators, they must think critically and find clear, data-driven answers to a range of important short- and long-term questions. Public safety, residents' quality of life and states' ability to attract businesses and compete in the global economy all depend on it.

Types of Public-Private Partnerships

A public-private partnership is a contractual agreement between the public sector and private sector for the provision of assets or the delivery of services that allocates responsibilities, risks, revenues and costs among the various partners.

Public-private partnerships can take many different forms. As a result, the responsibilities, risk, revenues and costs allocated to the private sector depend on the type of partnership pursued.

Finance Only: A private entity, such as a financial services company, provides the funds to finance a project directly or uses various mechanisms such as a long-term lease, issuance of equity or bond issue to secure the required capital.

Design-Build: The private sector, typically through a competitive bid process, designs and builds infrastructure to meet public sector requirements. The contract is usually for a fixed price; thus risks associated with cost overruns are transferred to the private sector. Once built, the asset is transferred to the public sector.

Contract Services: Operate and Maintain: A private company operates and maintains a publicly owned asset for a specified period of time. Ownership of the asset remains within the public sector.

Availability Payment: A private company designs, builds, operates and maintains a publicly owned asset for a specified period of time. The public sector retains ownership and traffic and revenue risk and pays the private operator periodically based on lane availability, level of service and other factors.

Build-Own-Operate-Maintain: The private sector finances, builds, owns, operates and maintains an asset/infrastructure or service indefinitely. The constraints imposed by the public sector are stated in the original agreement, and these constraints are reviewed and adjusted through an ongoing regulatory authority.

Design-Build-Finance-Operate-Transfer: The private sector designs, finances and constructs a new facility/asset under a long-term lease and operates the facility during the term of the lease. When the lease expires, ownership is transferred to the public sector.

Build-Own-Operate-Transfer: A private sector entity is awarded a franchise to finance, design, build and operate a facility/asset for a specified period of time, after which ownership of the facility is transferred to the public sector.

Buy-Build-Operate-Transfer: An existing public sector asset is transferred to a private sector entity with the specification that the asset is upgraded and the private sector entity is responsible for operations for a specified period of time. Afterward, ownership of the asset is transferred back to the public sector.

Long-Term Lease Agreement: A private operator receives a license or concession (typically for an upfront fee) that allows them to operate a publicly owned facility/asset, usually for a specified lease period. Ownership of the facility/asset remains with the public sector.

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