The United States faces a growing infrastructure challenge. The American Society of Civil Engineers estimates that the nation needs to invest more than $3 trillion across infrastructure sectors in the coming years. Many critical facilities have come to the end of their useful life and need major repairs or replacement. At the same time, the United States will add another 100 million people over the next 50 years, creating the need for expansion. Without robust investment by all levels of government, the United States will face an infrastructure drag that limits access to opportunity for millions of Americans and reduces overall economic productivity.

Historically, state and local governments have financed infrastructure investment through the issuance of tax-exempt municipal bonds. In recent years, however, investment fund managers have pushed governments to expand beyond traditional procurement approaches to include more public-private partnerships, or P3s—especially those that include a private equity financing component.

These supporters argue that public-private partnerships offer the government and investors a win-win: The public receives a needed facility, and investors earn attractive returns. Setting aside the fact that governments face a revenue problem and not a lack of access to credit, a review of past P3 deals demonstrates that incentives among participants are not always aligned. In fact, private equity investors have a strong incentive to negotiate deals that reduce their risk exposure in ways that may harm the public over time. Specifically, investors frequently push for noncompete clauses—contract provisions that reduce competition and require the government to make them whole financially when policy changes or parallel infrastructure investment alter project revenues. These provisions are smart business but often bad public policy.
Defining P3s

A P3 is a form of procurement that gives a private entity a greater degree of control over the delivery of major infrastructure projects. P3s exist on a spectrum. The most basic P3s bundle design and construction into a single contract. The most complex agreements require the private entity to provide a portion of the financing and to take control of the design, engineering, environmental permitting, construction, and long-term operations of the facility.

When properly negotiated, P3s can offer state and local governments the ability to transfer project delivery and revenue risk to the private sector. Given the propensity of the public sector to miss project deadlines and cost estimates, the ability to shift risk to the private sector can be a substantial benefit. In exchange for taking on additional risk, the private sector requires added compensation—transference does not come cheaply. For this reason, state and local governments must conduct rigorous value-for-money analyses to ensure that the public is receiving a benefit commensurate with the added cost.

For investors, public-private partnerships offer a very different value proposition. The global financial services giant UBS Group summarizes the benefits of infrastructure investment succinctly: “The high barriers to entry and the monopoly-like characteristics of typical infrastructure assets mean their financial performance should not be as sensitive to the economic cycle as many other asset classes.”

In other words, infrastructure projects have characteristics that are very attractive to investors. First, infrastructure systems behave more like regulated utilities than competitive markets. For instance, the United States has one only interstate highway system as opposed to two that compete against one another for market share. Second, infrastructure systems provide services that tend to have stable or modestly growing demand over time that is less responsive to economic downturns. For example, a laborer who faces reduced hours may be more likely to curtail meals out or a summer vacation than home water use or driving to work.

Risk transference

At first, UBS’s description of infrastructure investments may seem to contradict the idea of risk transference. After all, if the government project sponsor is shifting risk to the private entity, shouldn’t this make investing in infrastructure more volatile and risky compared with other asset classes?

To untangle this apparent contradiction, it helps to distinguish between the two types of risk that the public sector may transfer as part of a P3 deal: delivery and demand. Delivery risk refers to the challenges surrounding design, permitting, and construc-
tion of any large-scale project. For example, when it comes to a straightforward activity such as repaving an existing highway, there is little delivery risk. States have extensive experience managing paving projects and seeing contracts through to completion. By comparison, managing a project that involves complex engineering and construction techniques—such as tunnel boring—can prove more difficult. This is especially true in dense urban settings where project delays can arise as a result of challenges with land acquisition, utility relocation, and staging work around high-demand facilities that must remain open during construction.

Demand risk refers to the possibility that a new facility may not attract as many users as initial planning models predicted. For instance, a state may choose to finance a toll highway expansion project through the issuance of general obligation municipal bonds with the intention of using toll revenues to repay investors. By pledging its full faith and credit, a government project sponsor with a strong rating would be able to secure financing on very favorable terms. Under this approach, the state would retain the risk that travel demand fails to meet forecast levels, leading to lower toll revenues than expected. In the case of weaker than expected travel demand, the state would have to cover the difference between toll revenues and total bond payment obligations with general tax revenues.

A state or local government project sponsor has two methods for transferring demand risk. The first is to issue revenue bonds as opposed to general obligation bonds. Unlike general obligation bonds, which rely on the general taxing authority of the issuing jurisdiction, a revenue bond is backed by a specific source of revenue. In the case of a toll highway project, the state would pledge toll revenues as the source of repayment. Because revenue bonds have no claim to general tax revenues, they carry a higher risk of default and must offer a higher interest rate to attract investors.

Politics is often a central factor when governments choose between issuing general obligation or revenue bonds for major infrastructure projects. Because revenue bonds typically carry higher interest rates, they are a more expensive source of financing. In order to cover the higher cost of funds in the toll highway example, the state would likely have to raise toll rates. High toll rates have the potential to turn into a campaign issue for elected officials.

The second way for state and local governments to transfer demand risk is through a public-private partnership. Large infrastructure projects often involve multiple sources of financing. These may include loans from the federal government, private activity bonds, municipal bonds, and private equity, among others. Project revenues then flow to each debt holder based on their level of seniority. Typically, equity investors are paid after all others. This position in the debt stack carries the greatest risk of nonpayment, as well as the possibility of substantial returns. In fact, equity investors look for annual returns between 8 percent and 14 percent.
While a relatively modest change in overall demand might not threaten the financial returns of senior bondholders, it could have significant negative effects on equity investors. For this reason, private entities often negotiate hard for the inclusion of noncompete clauses to reduce demand risk or policy changes that undercut project revenues. These contract provisions are present in both brownfield agreements—lease transactions involving existing facilities, such as the Chicago parking meter deal—and in greenfield, or new construction, projects such as the Midtown Tunnel in Norfolk, Virginia. Both of these projects are discussed in the next section.

Reducing competition and uncertainty

Long-term public-private partnerships with noncompete and make-whole clauses can constrain the decisions of future elected officials, planners, and policymakers in ways that can harm the public.10

Chicago Parking Meters

In 2008, the City of Chicago signed an agreement to lease many of the city’s parking meters to a private company called Chicago Parking Meters, LLC. In exchange for a one-time payment of $1.157 billion, Chicago Parking Meters, or CPM, holds the concession rights to collect all revenues from the meters included in the agreement over a 75-year period. The city retains the revenue from parking meters not included in the concession. These meters are termed reserve metered spaces.11

At the most basic level, the agreement allows the city to move revenue forward in time. Instead of slowly collecting money from parking meters over many decades, the P3 deal provided the city with an immediate cash payment. In this respect, the deal mirrors other forms of borrowing. After all, when governments issue debt, they are essentially moving future tax collections forward in time. The benefit of securing a large amount of capital all at once is that it can allow the government to accomplish things that could not be done with a smaller stream of revenue over many years.

Yet brownfield lease P3s are fundamentally different from other forms of borrowing due to the constraints imposed on the public sector. Many of the municipal bonds that state and local governments issue to build infrastructure projects have a 30-year repayment period. The decision to borrow money by issuing bonds creates a long-term financial obligation. However, owing money is different from constraining the use of a particular facility or the ability of a state or local government to expand parallel facilities in the future. In other words, a state department of transportation may owe money for the construction of a highway for 30 years, but this does not prevent it from altering the
facility’s design or operations in year 10 if such a change would produce a beneficial result. However, even when the state is permitted under the terms of a P3 deal to make certain changes, they often come at a steep financial cost.

P3 agreements also tend to be significantly longer term than traditional borrowing. Lengthy agreements present two problems—one that is philosophical and one that is practical. On the philosophical front, long-term deals present a challenge to the principals of democracy. At issue is the fact that one elected official or set of officials signs a contract that binds the decisionmaking authority of future elected officials. This means that even if economic, social, or political conditions change significantly, future officials are forced to abide by the terms and conditions of the deal. This is not a critique of the rule of law. Instead, it is a recognition that agreements that reduce choice over time can undermine the public’s sense that democratic processes are working properly.

On the practical front, long-term deals require the government to negotiate contract provisions that try to anticipate the future. The history of Chicago demonstrates the impossibility of this task. Seventy-five years ago, Chicago was very different than it is today. In 1940, the city had a population of 3.4 million people. This represented a doubling of the population from 1900, with annual growth averaging 1.7 percent. If the city had continued along this trajectory, it would have more than 12 million people today. However, by 1950, the city’s population peaked and then started to decline. Today, the city has a little more than 2.7 million people.

If someone had asked Edward Joseph Kelly, who was the Mayor of Chicago in 1940, about the future of his city, it seems hard to imagine that he would have predicted population decline. Yet this is exactly what happened. If Mayor Kelly had negotiated a P3 deal under the assumption that the city would grow in perpetuity, it very likely would have turned out poorly. The current parking meter lease deal does not expire until 2084. No doubt the city will continue to change in ways that no one can anticipate.

The City of Chicago attempted to mitigate the challenges of change over time by retaining certain “reserved powers.” These powers give the city some flexibility to adapt. Under the terms of the 2008 agreement, the city can set policy in a number of areas, including: the number and location of metered parking spaces; the cost, hours of operation and maximum duration of parking; fines for parking violations; enforcement and adjudication of parking violations; and the option to implement congestion pricing.

At first pass, this list of reserved powers seems broad. The catch is that if the city exercises this discretion in any way that undermines CPM’s revenues, the city must make payments to the firm. At issue is the $1.157 billion concession payment that CPM made to the city in 2009. CPM’s payment reflected its estimation of the net present value of the stream of revenues over the life of the agreement based on the number, location, enforcement policies, and price—including set rate increases over time—for all conces-
sion meters. In other words, the 2008 agreement does not set parking policy in stone, just CPM’s profits. Chicago can change its mind about parking policy at any time. The rub is that it must always make CPM whole.

The P3 agreement contains several provisions that require the city to pay a fee to CPM if it makes certain changes, including:

• The City of Chicago cannot adopt parking fees for any reserve metered spaces within one mile of a concession space that could pull customers away from the concession spaces. This provision limits competition.

• The City of Chicago was required to raise parking meter fees by a total of 200 percent to 800 percent, depending on the zone, from 2009 to 2013. After this time, parking fees must increase to keep pace with the consumer price index, or CPI. If the city fails to raise fees accordingly, it must make a quarterly payment to CPM. This provision keeps CPM financially whole.

• The City of Chicago must limit the total number of days that a concession space is taken out of service due to weather, maintenance, or civic purpose, such as a street festival. If the city exceeds the outage limitation, it must make a payment to CPM. This provision also keeps CPM financially whole.

• The City of Chicago may reduce fines for parking violations. However, if the ratio of parking fines to the hourly parking rate drops below 10-to-1, the agreement assumes that each concession space loses 10 percent of its revenue. If the ratio drops below five-to-one, the agreement assumes that revenues drop 25 percent. If they drop below three-to-one, the agreement assumes revenues drop 80 percent. This provision assumes that higher fines increase compliance with parking fees. If the city reduces the fine-to-parking-rate ratio, it must make a quarterly payment to CPM. This provision keeps CPM financially whole.

• The city may remove or relocate concession parking spaces. If the city removes a space, it must compensate CPM for the anticipated lost revenue over the remaining years of the agreement. If the city relocates a concession space to a roadway with less parking demand, it must compensate CPM for the lost revenue. This provision keeps CPM financially whole.

As these provisions demonstrate, flexibility comes at a high price. In fact, since the agreement’s inception, the City of Chicago has paid CPM $31 million dollars. This figure excludes the $7.2 million it paid to various advisory service firms as part of the transaction costs associated with the deal. This suggests that the city would have been better off simply borrowing the sum it received through the deal. Issuing municipal debt would have provided needed capital at a fixed price without locking the public into an agreement that provides a low-risk, near monopoly position for a private concessionaire.
Norfolk Midtown Tunnel

The geography of the Norfolk, Virginia, region is defined by the Elizabeth River and its multiple branches and inlets. The river is critical to the region, facilitating both commerce and naval operations. At the same time, it constrains the regional road network. In the early 1950s, the commonwealth opened the Downtown Tunnel, which was the first tunnel to connect the cities of Portsmouth and Norfolk. In 1962, the commonwealth opened the Midtown Tunnel to provide additional crossing capacity and help alleviate some of the demand on the Downtown Tunnel.

In order to finance the construction of these facilities, the Virginia General Assembly established an independent entity known as the Elizabeth River Tunnel District, or the District. The District issued revenue bonds and repaid these debts with toll proceeds. Once all project financing had been repaid in the 1980s, the District removed tolls from both tunnel facilities.

For many years, local leaders and planners pushed to expand the Midtown Tunnel to include a second two-lane bore in order to provide congestion relief. After years of study and review, the Virginia Department of Transportation, or VDOT, issued a solicitation for public-private partnership proposals in May 2008. Eventually, VDOT negotiated an agreement with Elizabeth River Crossings HoldCo, LLC.

The agreement includes three major related construction elements: a second two-lane Midtown tunnel, rehabilitation and improvements to the existing Downtown tunnels, and an extension of Route 58, which is also known as the Martin Luther King Jr. Freeway, or MLK. Taken together, these three elements have a total cost of $2.1 billion.

For years, Virginia state officials heavily promoted the project as one that would involve no public funding. In place of grant dollars, Elizabeth River Crossings, or ERC, would finance the entire cost of the project with a combination of federal loans, private activity bonds, and an equity contribution. Under the initial proposal, ERC would repay project debts and receive a return on its equity investment by tolling cars and trucks using the MLK extension and the Midtown and Downtown tunnels. ERC proposed toll rates for the two tunnels of $2 to $3 for cars and $6 to $9 for trucks. Tolls on the MLK extension would be $0.50 for cars and $1.50 for trucks. ERC listed all toll rates in 2008 dollars.

In reality, VDOT has contributed $581 million to the project to pay for some construction costs and to reduce or eliminate tolls. This total includes $308 million in funding to cover a portion of construction, $78 million to eliminate tolls on the MLK extension, $112.5 million to delay the start of tolling by 18 months, and another $82.5 million to reduce toll rates for the tunnels. Importantly, these contributions were not necessary to complete the project. Instead, the money that VDOT contributed represents a political calculation on the part of then Gov. Bob McDonnell (R). By contributing public money, the governor was able to reduce the political cost of applying tolls.
Aside from the issue of how the project was initially sold to the public, the real problem with the deal is the near monopoly position that it confers on ERC. Moreover, the agreement does not expire until 2070 and includes guaranteed toll increases. Specifically, the agreement provides a fixed schedule of toll increases during the first nine years of the concession.29 Beyond this time, the deal guarantees ERC the right to raise tolls annually by 3.5 percent or by the increase in the consumer price index—whichever is greater.30

This guarantee is especially concerning considering the low level of inflation in the economy. According to data from the U.S. Bureau of Labor Statistics, the consumer price index increased by just one percent over the past year.31 A recent survey of economists and other financial professionals by the Federal Reserve Bank of Philadelphia indicated that experts believe annual increases in the consumer price index will remain a little over two percent for the next decade.32 In effect, ERC has the right to increase prices well beyond the rate at which its costs will increase for maintaining these facilities over time. In other words, even if travel demand remained constant, ERC’s profits would increase because toll revenue growth would outpace inflation.

The financial model that underpins ERC’s bid assumes a certain level of daily travel demand. In order to protect against a reduction in demand, the agreement requires that if VDOT makes any meaningful improvements to a list of “alternative facilities,” then they must compensate ERC financially.33 These include the following:34

- Construction of the Patriots Crossing/third bridge-tunnel or any other crossing of the James River between the two existing bridge-tunnels
- Construction of any additional lanes on Interstate 64, including on the High Rise Bridge, in Chesapeake, Virginia, between the intersection of Interstate 64 and Interstate 464 and the intersection of Interstate 64 and Interstate 664 at Bower’s Hill
- Expansion of the Bridge-Tunnel in Hampton Roads
- Any new crossing of the Elizabeth River between Norfolk and Portsmouth or crossing of the Southern Branch of the Elizabeth River north of I-64

The P3 agreement defines competition from alternative facilities in a very expansive way. To understand just how expansive, it helps to consider the location and purpose of these facilities. The Patriots Crossing provision does not even concern travel between Portsmouth and Norfolk. Instead, it limits the construction of a third crossing that would provide additional travel options over the James River that would take drivers from Norfolk and Portsmouth to Hampton and Newport News. Similarly, the restriction on expanding the Hampton Roads Bridge-Tunnel also deals with a facility that transports cars from Norfolk to Hampton and Newport News. The provision that deals
with the High Rise Bridge restricts expansion of a facility that is 15 miles from the Midtown Tunnel. Finally, the last provision restricts the construction of a new crossing of the branch of the Elizabeth River that runs south from Portsmouth to Chesapeake.

The agreement also spells out in great detail what constitutes meaningful improvement:

- The number of lanes is different
- The number of high-occupancy vehicle, high-occupancy toll, truck, or other special purpose lanes is different, including their length
- The highways having interchange, entrance, or exit ramp access to and from any alternative facility are different, including any changes to their capacity
- VDOT decides not to charge tolls or charges lower rates on an alternative facility than the rates described in the department’s notice
- The means for collecting tolls is substantially different, such as through barrier instead of open lane tolling

Under the terms of the P3 agreement, ERC “irrevocably waives and relinquishes, any and all rights to institute, seek or obtain any injunctive relief.” In plain English, this provision means that VDOT retains the right to expand or alter the roadway network, and ERC cannot try to stop them by seeking legal remedy. The problem is that this freedom comes with a financial penalty in the form of payments to make ERC whole. According to a Washington Post analysis of a prospectus prepared by Skanska, which owns half of ERC, the total value of VDOT’s make-whole payments over the life of the concession is between $269 million and $774 million.

ERC’s goal is to earn 13.5 percent average annual return. This rate of return is typically reserved for investments that carry extremely high levels of risk. For instance, according to data compiled by the Federal Reserve, ERC’s target rate is far above current returns on corporate high yield debt also known as junk bonds. Yet the anticompetitive provisions included in the Midtown Tunnel contract mean that this project does not fit that profile. And ERC retains the contractual right to potentially earn these returns for 58 years.
Conclusion

Public-private partnerships offer state and local governments an alternative form of procurement that can deliver benefits in the form of risk transference for the design, engineering, construction, maintenance, and demand for major facilities. When these agreements stretch over many decades, however, government negotiators are forced to try to foresee all future possible scenarios—an essentially impossible task. Moreover, when the state fails to accurately forecast future economic conditions, private investors may succeed in negotiating a deal with a rate of return that far exceeds the actual level of market risk. In short, public-private agreements can lock the state into terms and conditions that run counter to the broader public good. For this reason, policymakers should avoid noncompete clauses whenever possible. If noncompete clauses are ultimately necessary, the state must ensure that the concessionaire accepts a lower rate of return that reflects the reduced revenue risk the provision provides.

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The Hazards of Noncompete Clauses in Public-Private Partnership Deals


3 Often, a consortium of private entities that may include both construction and financing firms will form a new corporation to bid on and then, if selected, deliver a specific project.


10 The term noncompete is a standard legal term for a contract or provision within a larger contract that prohibits a certain type of competitive activity. Often, noncompete contracts prohibit an employee from leaving one company to go directly to work for a competitor. The provisions in public-private partnership agreements are somewhat different though the effect is largely the same. Unlike the traditional employment example, the state is not prohibited from engaging in competitive activities. Often, noncompete contracts provide financial compensation to the private concessionaire. In effect, the state must make a payment to keep the concessionaire financially whole. These events are clearly spelled out in the contract. Again, the effect is largely the same as a traditional noncompete clause. Since the state does not want to make an expensive payment to the concessionaire, it often does not engage in competitive activity.


14 Ibid.


17 In 2013, the City of Chicago renegotiated a portion of the original deal following a change in mayoral administration. These changes did not alter the anti-competitive and make whole provisions. The negotiation originated with a disagreement over the interpretation of certain language in the original agreement. In part, the city had concerns about the data and methodology CPM was using to calculate the quarterly make whole payments. Following the renegotiation, the city took over responsibility for calculating payment amounts. This resulted in reduced payments. Additionally, the city instituted a pay-by-phone method and eliminated Sunday parking fees in certain neighborhoods. In order to avoid having to make additional payments to CPM for the loss of Sunday revenue, the city extended metered parking hours in certain areas. From conversation with Molly Poppe, City of Chicago, June 10, 2016; City of Chicago Office of Inspector General, “Description of City’s Reserved Powers Under the Parking Meter Concession.”

18 Data provided through personal communication with Molly Poppe, City of Chicago Office of Budget and Management, June 24, 2016.


21 Ibid.

22 Ibid.


27 Ibid.
28 Ibid.


30 The contract confers upon ERC the right to increase prices by these amounts though not the obligation. Microeconomic theory holds that consumers—in this case drivers—are responsive to changes in price. Because demand is not fully inelastic, meaning it is not totally unresponsive to price, demand falls when prices rise. Firms attempt to maximize returns by selecting the price point that yields the most revenue relative to lost demand. Given the high level of travel demand in the Norfolk region, there is strong reason to believe that the price increases allowed under the contract fall at or below the optimal price point, meaning ERC will exercise its right to fully increase prices.


35 Result based on calculation from Google Maps.

36 Virginia Department of Transportation, “Comprehensive Agreement Relating to the Downtown Tunnel/Midtown Tunnel/Martin Luther King Freeway Extension Project.”

37 Ibid.

38 Laris, “Agreement for new submerged tunnel in Norfolk leaves Virginia underwater.”


40 Federal Reserve Economic Data, “BofA Merrill Lynch US High Yield Effective Yield” (June 2016), available at https://research.stlouisfed.org/fred2/series/BAMLH0A0HYM2EY.