PUBLIC–PRIVATE PARTNERSHIPS (P3s)

QUICK FACTS

- **Toll concessions,** in which the concessionaire receives compensation through obtaining the right to collect tolls on a facility.
- **Availability payment concessions,** in which the concessionaire receives a periodic "availability" payment from the public partner based on the availability of a facility at the specified performance level.
- **Shadow toll concessions,** in which the concessionaire receives a set payment called a shadow toll for each vehicle that uses the facility.

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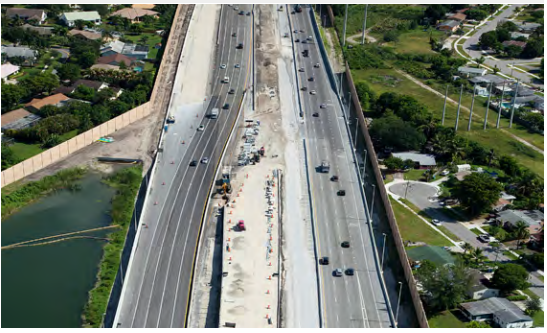

Interstate 595 express lanes ramp, FL.

Payment Mechanisms in Public–Private Partnerships (P3s)

With a form of highway Public–Private Partnership (P3) called a *concession*, a concessionaire invests its own money (known as *equity*) and borrows additional funds to pay for construction of a highway project. If the facility is already constructed (e.g., an existing toll road), the concessionaire uses a combination of equity and debt to pay the public partner for the right to operate the facility for a specified period of time and to collect tolls. If the project needs substantial rehabilitation, the concessionaire may use some of the funds raised from debt and equity to pay for construction.

Downtown Tunnel and Berkley Bridge, South Hampton Roads, VA.

The concessionaire expects to be repaid for its investment in the project over the period of the concession. The three most common payment mechanisms are as follows:

- **Toll concessions,** in which the concessionaire receives compensation through obtaining the right to collect the tolls on a facility.
- **Availability payment concessions,** in which the concessionaire receives a periodic "availability" payment from the public partner based on the availability of a facility at the specified performance level.
- **Shadow toll concessions,** in which the concessionaire receives a set payment called a *shadow toll* for each vehicle that uses the facility.

TOLL CONCESSIONS

The authority to impose tolls or user fees may be subject to certain statutory or contractual conditions, including approval by State, local, and Federal agencies. P3 agreements will typically detail when and by how much tolls can be modified. In the case of congestion-priced facilities, where toll rates are not restricted, P3 agreements will typically limit the potential for excess profits to the private sector through sharing of revenues between the public and private sectors when revenues exceed a certain threshold and/or through restrictions on rate of return or present value of toll revenues received by the concessionaire over the term of the concession.

In projects in which the primary revenue stream is derived from tolls, the private investor's assessment of the value of a toll-based concession will depend on its projections of potential toll revenues. Forecasting demand on new toll roads or lanes is difficult, and revenue projections are very uncertain. More speculative investors may be attracted to the potential for extra profits to be gained from assuming this risk if demand for a facility is higher than anticipated. More recently, however, investors have been less willing to take on the revenue risk. To address their concerns, the availability payment approach (discussed later in this fact sheet) has been used on a Florida project involving tolls.

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Innovative contract arrangements have been used to enable sharing between the public and private partner of the risks associated with uncertain future toll revenues. They include *dynamic concession terms* and *revenue bands.* With dynamic concession terms, the term of the concession ends when a specified present value of the toll revenue stream is reached. With the revenue band approach, upper and lower bounds of the expected toll revenue stream are set contractually. If toll revenue is below the lower bound, the public agency provides a subsidy to make up some of or all of the shortfall. Revenues in excess of the upper bound are shared with or turned over entirely to the public agency. Both approaches have been used overseas to reduce the exposure of the concessionaire to revenue risk by effectively guaranteeing a minimum level of revenue.

AVAILABILITY PAYMENTS

With an availability payment approach, the public sponsor makes periodic payments to the concessionaire on the condition that the facility meets defined performance specifications. Payments are not dependent on tolls. If the project is a tolled facility, then the public partner retains the revenues from the tolls as well as the risk that revenue forecasts will not be realized. To determine the amount of the availability payment, private sector bidders submit bids based on the annual payment that they would require.

On a tolled facility, public agencies may choose to use availability payments to attract more bids that are competitive; to retain traffic risk, because the private sector demands too high of a risk premium to take on that risk; to alleviate public concerns over private sector control of toll rates; or for a managed lanes project, to retain the ability to dynamically manage toll rates to optimize mobility on all lanes (both general purpose and managed lanes) along the corridor.

SHADOW TOLL CONCESSIONS

Shadow tolls are a set payment by the public agency for each vehicle that uses the facility. Under this form of concession, shadow tolls may be adjusted based on safety, congestion, or pre-established floors and ceilings. Shadow toll concessions have been extensively used in the United Kingdom. In the United States, they have been used in public–public agreements in Texas under the term *pass-through tolls* to repay local agencies for their up-front investments in a project. The advantage of shadow tolls over real tolls is that traffic diversion to non-tolled facilities is avoided, because motorists themselves do not pay tolls. The disadvantage is that revenue to repay the concessionaire's investment must come from other public sources, which may be constrained.

OFFICE OF INNOVATIVE PROGRAM DELIVERY

PROGRAM AREAS OF THE CENTER FOR INNOVATIVE FINANCE SUPPORT

The Center for Innovative Finance Support provides a one-stop source for expertise, guidance, research, decision tools, and publications on program delivery innovations. Our Web page, workshops, and other resources help transportation professionals deliver innovation.

PUBLIC–PRIVATE PARTNERSHIPS

The Center for Innovative Finance Support's P3 program focuses on the potential of design–build–operate–finance–maintain (DBFOM) concessions funded through tolls or availability payments to reduce project cost, improve quality outcomes, and provide additional financing options.

ALTERNATIVE PROJECT DELIVERY

The Center for Innovative Finance Support's Alternative Project Delivery Program provides information on contractual arrangements that allow for greater private participation in infrastructure development by transferring risk and responsibility from public project sponsors to private sector engineers, contractors, and investors.

PROJECT FINANCE

The Center for Innovative Finance Support's project finance program focuses on alternative financing, including state infrastructure banks (SIBs), grant anticipation revenue vehicles (GARVEEs), and Build America Bonds (BABs).

TOLLING AND PRICING

The Center for Innovative Finance Support's Federal tolling and pricing program focuses on the use of tolling and other road user charges as a revenue source to fund highway improvements and the use of variably priced tolls as a tool to manage congestion.

VALUE CAPTURE

The Center for Innovative Finance Support's Value Capture Strategies explores strategies for tapping into the added value the transportation improvements bring to nearby properties as a means to provide new funding for surface transportation improvements.

U.S. Department of Transportation
Federal Highway Administration