

INTRODUCTION TO PUBLIC-PRIVATE PARTNERSHIPS WITH AVAILABILITY PAYMENTS

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SUMMARY

Public-private partnerships (“P3s”) can provide the public sector with greater flexibility and efficiency in building, financing and managing infrastructure assets – provided that PPP contract structures and procurement processes are actively designed to ensure these goals are achieved.

While a number of recent domestic P3 transactions involve toll roads, the transfer of demand/revenue risk to a private concessionaire is not inherent in a P3. Many P3s involve projects that generate no revenues from users or inadequate revenues to cover their full cost of construction and ongoing operation. For example, in the I-595 Express Lanes in South Florida, the facility will generate user fees, but those fees are not part of the concession -- the State will set and retain all tolls, and will pay the Concessionaire an *availability payment*.

As discussed below, an availability payment is a payment for performance made irrespective of demand. Availability payments can be an attractive financing and project delivery alternative for projects which, for reasons related to policy, public perception and/or profitability are not feasible or advisable under a user-fee based concession.

As an overview, an availability payment-based P3 structure:

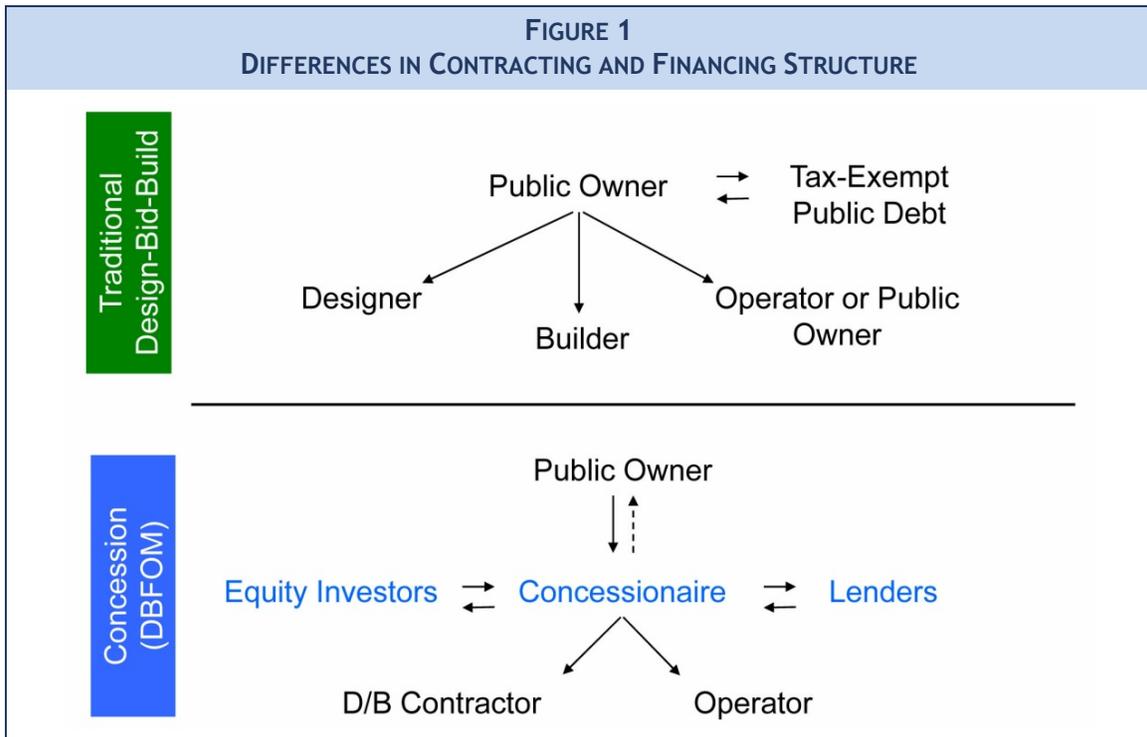
- Transfers the risks of designing, building, financing and operating/maintaining a project to a private partner;
- Is generally appropriate for a project if:
 - It does not generate direct revenue;
 - Performance / operational outcomes are easy to define and monitor;

- Government wishes to retain direct rate setting authority;
- Revenue and/or demand is difficult to predict and/or influence through operational changes; or
- Service quality is more important or applicable goal than revenue maximization;

- Caps both the government’s obligation AND private upside and therefore can compare favorably to public debt;
- Results in public retention of demand risk, reducing the risk premium in private cost of capital but potentially increasing public exposure to shortfalls and volatility; and
- Preserves strong incentives for concessionaires to provide efficiency gains in the construction, operations and maintenance of a project.
- May be subordinated in part or whole to other government debt.

In public transit, availability payment P3s can be used to deliver entire systems (e.g. Denver RTD’s proposed commuter rail lines) or self-contained components of systems (e.g. rolling stock, vertical circulation systems, fare collection systems). In the UK and Canada, well over 500 projects have been initiated using availability payment frameworks, including P3s for school buildings, hospital buildings¹, courthouses, roads, mass transit, street lighting, water and other infrastructure.

¹ Note that under this framework, the school and hospital buildings are procured as a P3, while the teaching and medical services are provided by public servants.



STRUCTURING PUBLIC PRIVATE PARTNERSHIPS

A public agency can use a wide range of contractual structures to deliver or manage a project. Traditional design-bid-build (“DBB”) contracts, for example, leave many risks with the public side but provide significant control over the outcomes. Design-build (“DB”) contracts reduce design risk, but can require extensive specifications as they offer no opportunities for the design-builder to share in lifecycle cost risk or savings. An alternative to DBB and DB structures is the design-build-finance-operate-maintain (“DBFOM” or P3) contract, which provides stronger incentives for concessionaires to optimize project lifecycle costs.

An important feature of DBFOMs is that they encourage otherwise unrelated private parties to work together more closely. For example, in a DBFOM, any schedule or quality problems which may surface during the construction phase will impact the future costs and revenues of equity holders, lenders and operators, who thus have a direct interest in closely monitoring the designers and builders. This integrated structure aligns the private parties’ incentives with those of public sector – they should make the most money when the project opens on time and performs as specified. Well-designed P3s can

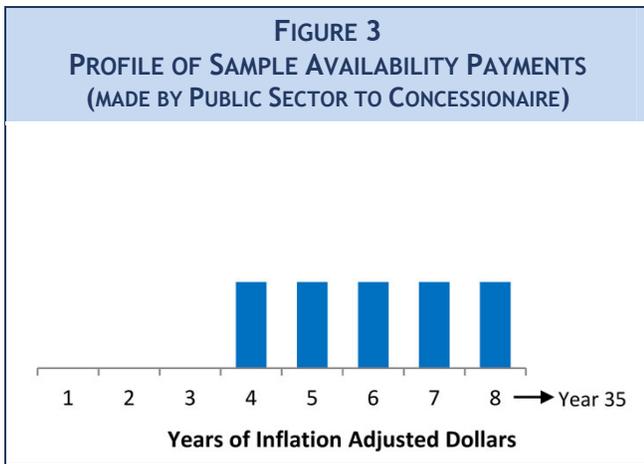
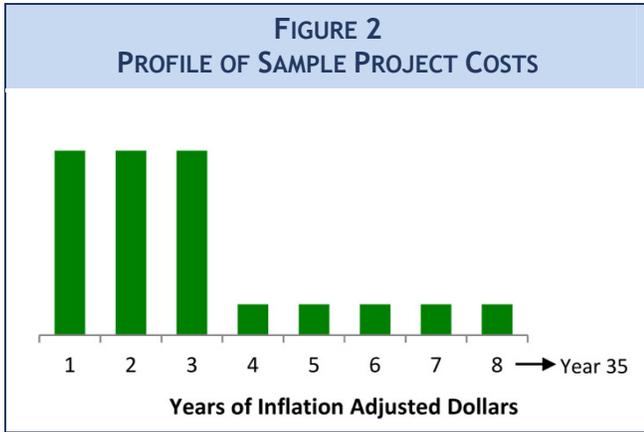
greatly improve project efficiency, provide financing term flexibility,² and improve schedule and budgetary adherence.²

Figures 2 and 3 summarize the differences between the stream of payments for construction and future operations associated with conventionally-procured and financed undertakings compared to P3 projects financed through availability payments.

Financing costs are typically higher for private companies than they are for government entities³. Therefore, successful P3s should

² A study on P3’s in the UK found 22% of such projects had cost overruns vs. 73% of traditionally procured construction projects (National Audit Office, *PFI: Construction Performance*. London, UK: Stationary Office, 2003). A similar study on P3 projects in Australia found P3s were completed 3.4% ahead of schedule on average, with no significant cost overruns as compared to traditional projects, which were completed 23.5% behind schedule on average and were AU\$673mil over budget for the AU\$4.9bil in traditional projects studied (The Allen Consulting Group, *Performance of PPPs and Traditional Procurement in Australia*, Melbourne, Australia: The University of Melbourne, 2007).

³ A number of financing options are currently available in the U.S. to help lower this financing cost



generate sufficiently large efficiency gains in the design, construction and operation of a project or other qualitative benefits in order to more than make up for this increased cost of financing. *Value for Money* (“VfM”) analysis is used in many countries and in some U.S. states to consider these tradeoffs prospectively and then in post-contract award analysis.

gap. These include TIFIA credits and tax-exempt private activity bonds (“PABs”). In addition, availability payments are often subordinate in part or whole to senior government credit obligations which can suggest a different credit profile / financial opportunity cost.

AVAILABILITY PAYMENTS

Infrastructure projects typically cover their expenses from two revenue sources: user fees and public sector subsidies. Once these funding sources are identified there are a number of options to structure the compensation received by the private sector in a P3. Typical “payment mechanisms” can include any/or a combination of: full rights to collect user fees, rights to secondary revenue collection (e.g. parking, advertising, commercial rentals), subsidies tied to the usage of the facility (e.g. shadow tolls), upfront subsidies, payments for reaching certain construction milestones, flexible lease periods (lasting until a target NPV of revenues is reached) and *availability payments*. In a well-designed P3, the concessionaire should make the most money when the infrastructure most fully meets the government’s objectives.

An availability payment is a payment for performance (irrespective of demand). The availability of a facility is defined in two ways. “Pure availability” requires the asset, or a section of the asset, to be open, functioning and unobstructed, permitting full use by the public. “Constructive availability” goes further. In addition to meeting the “pure availability” requirements, the asset, or a section of the asset, must meet performance, safety and quality criteria specified in the contract – often providing the public owner with stronger metrics and management tools to assure a high quality service than it may be able to apply to services it self-performs.

For example, in a case of a tunnel, the tunnel must be dug and the lanes must be passable (pure availability), but the facility must also be clean, well-ventilated, properly lit, etc. (constructive availability).

For determining “price” under an availability payment-based procurement, prospective concessionaires bid the *maximum availability payment* amount they would earn for providing 100 percent availability in a given year.⁴

⁴ Note that the operating period for a concession may run for 25 or more years, so relatively small differences in the annual availability payment bids that are received (as compared to say, the construction cost) often result in large costs to the public owner over the life of the project. In addition,

However, if the concessionaire fails to meet the pure or constructive availability requirements, the payment for the given year is reduced by a pre-determined formula taking into account the duration, time-of-day, and severity of the incident. This in effect ties payments to asset performance. Significant and/or persistent underperformance also will lead to default and contract termination on terms adverse to the concessionaire. Lenders and equity investors finance the construction of availability payment projects solely based on the expectation of repayment through the successful earning of the future payments (similar to the financing of a “take-or-pay” contract). This aligns their incentives with the public sector performance goals for the facility – poor performance reduces the payment stream and places their expected returns at risk.

Availability payments deal structures offer a number of important benefits:

- Guaranteed, long-term budget certainty (payments will never exceed the maximum availability payment) for the public owner;
- Payments only begin at start of project operation, incentivizing the private partner to provide faster delivery, especially for “greenfield” projects, and to fulfill the requirements for substantial completion;
- Private operator focused on meeting a specified standard of service (with consequences);
- Public partner maintains complete control over user fees, if any ;
- Maintenance and future capital renewal and replacement are fully funded, and there are typically lifecycle cost efficiencies realized;
- Payments may not be viewed as debt owed by public entity (viewed as a binding obligation, subject to budget appropriations); and
- Cash flows are more stable than with user-fee concessions or shadow tolls, thus:
 - The cost of capital is lowered,

two proposers having similar construction costs may have a wide variation in proposed annual availability payments because their financing or long term operations and maintenance costs may be quite different.

- Debt service coverage ratio (“DSCR”) requirements are lower,
- There is little risk of unexpected private sector windfall, and
- Private sector risk is lower, enhancing feasibility in risk-adverse markets.

DECIDING BETWEEN CONVENTIONAL PROJECT DELIVERY AND AN AVAILABILITY PAYMENT P3

Not all projects can be considered potential P3s – for example if there is no potential for long-term private sector operations or flexibility to optimize lifecycle costs. (Labor agreements are not necessarily incompatible with P3s if the motivations of the parties are properly considered and consistent with collective bargaining understandings.) If there is no inherent barrier to a DBFOM contract, then both qualitative and quantitative analysis can play a role in determining whether a P3 might be preferable.

In order to help public owners make this type of assessment a Value for Money (“VfM”) analysis is typically performed – comparing a publicly financed project versus a P3. The VfM analysis seeks to determine if the higher private financing cost of a P3 can be offset by lower exposure for the public owner for construction and operating cost risks and overall efficiency gains. Detailed financial models can be constructed for the P3 and non-P3 options and a net present value of the cash flows compared under a range of scenarios to help the public owner make an appropriate choice.⁵ The outcomes often depend upon how risk retained by the public sector is represented in the model. The public owner’s experience with past projects (to the extent applicable) can be used to frame these assumptions.

VfM analysis at the pre-procurement stage can more reliably be used to test sensitivities to various factors in order to identify a range of conditions under which a P3 may or may not deliver value. Reducing the analysis to a one number output may mask the imprecision that is inherent in preliminary forecasting of project

⁵ The VfM analysis is typically re-run and finalized after the procurement in order to see if the anticipated benefits were actually realized.

costs, risks, interest rates and other factors, and could engender bias or contention.

In comparing different procurement strategies, policymakers should also consider qualitative factors, such as: faster delivery; higher quality service; management and oversight capabilities; available performance guarantees and warranties; effects on debt capacity and cash flow; or achieving greater and longer term budget certainty. Some factors, such as the depth and aggressiveness of the potential bidder markets for different procurement strategies can be taken into account qualitatively and/or via adjustments to estimates used in the VfM calculation.

DRIVERS OF SUCCESS

The full, anticipated benefits of a P3 will only be realized if the P3 contract is properly structured. “Structuring” a P3 is the process of allocating risks, rights, and responsibilities among the public and private partners and determining how the concessionaire will earn its revenue.

A driving tenet of P3 practice is that risks are allocated to the party best able to mitigate them. For example, a private partner may be held accountable for construction costs, schedule, operating performance, closing the necessary financing, and adhering to a budget for delivering a specified level of service. The public owner may be held accountable for achieving certain environmental approvals, assembling needed right of way, securing the

necessary funding to meet its contractual obligations and obtaining the necessary legal authorities to implement the procurement and deliver the project. Structuring should be undertaken prior to issuing a request for proposals so that competition is focused and proposals may be compared on an apples-to-apples basis.

P3 procurements succeed by offering projects which are credible and ripe – defined, buildable within a realistic schedule, and feasible with an acceptable risk allocation. Public P3 programs endure and succeed when there are:

1. Publicly defensible rationales for choosing to pursue P3s:
 - Actual efficiency gains – meeting value-for-money test
 - Incentives to deliver on time and on budget, etc.
 - Contract terms are efficient and practical
2. A procurement process that is predictable and transparent – but also flexible:
 - Attracts bidders
 - Reduces cost and ensures the public actually captures efficiency gains
 - May enhance political stability
3. Strong teams:
 - Capable, interdisciplinary project-level team, integrating internal staff with experienced outside advisors
 - Executive and policy-level support, commitment and availability for decision-making in real time; and
4. Track records of, and commitments to, only bring credible, priority projects to market.

FOR MORE INFORMATION

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