

Availability Payment Public-Private Partnerships for Port Projects

Governmental entities in North America are increasingly using availability payment contracts to undertake critical infrastructure projects. Under these contracts, a governmental entity makes fixed payments to a private contractor that is responsible for the design, construction, long-term maintenance and financing of the project. While Canada has employed these contracts extensively in recent years, the United States has been slower to adopt them.

The first availability payment contracts began to be used in the United States in the last several years on several large transportation projects in Florida: the Interstate 595 Express Corridor Improvements Project and the Port of Miami Tunnel Project. Within the last year, the Regional Transportation District in Denver utilized an availability payment contract structure for its Eagle P3 mass transit project and state agencies in California entered into availability payment contracts for the reconstruction of the Presidio Parkway in San Francisco and the construction of a new courthouse in Long Beach.

This article describes how availability payment public-private partnership (P3) agreements could be used by port authorities to address their capital expenditure funding gaps and improve the quality of maritime infrastructure expansion projects, especially with respect to “common user facilities,” such as breakwaters, access channel dredging, connecting roads and bridges,¹ and port expansion projects.

Port Authorities' Funding Challenges

With the recovery of seaborne trade volumes after the sharp reductions in 2008 and 2009, many ports in the Americas are dusting off their plans to expand and upgrade their ports. Port authorities in North America are looking again to prepare for new projects: adjusting their ports for the largest generation vessels, modernizing their road and intermodal connections and "greening" their port infrastructure. Various east coast ports are aiming to expand capacity in order to accommodate the anticipated increase in volume as a result of the expansion of the Panama Canal. In Central and South America, ports are expanding to have enough capacity for the continuing economic growth and export of bulk commodities.

Various US ports have proposed port expansion plans with total capital expenditures of several billion dollars. In Latin American countries, the total amount of capital expenditure for ports might even be higher. Port authorities are struggling to secure financing for all these projects, especially if it is for common user facilities. Typically, port authorities consider two alternatives to finance their new port expansion plans: applying public capital or inducing the private sector to make the investments, through long-term terminal concessions or full privatization. However, these models have their drawbacks and might not be the answer to the current funding needs of port authorities.

Public Funding Options Are Increasingly Restrained

Many port and local authorities in the United States use public funds (grants, or their own capital) and municipal bonds to finance their port infrastructure projects. Due to the austerity measures of many government entities, public financing of capital expenditure projects has become more limited. Federal grants for port authority projects have increasingly come under fire as earmarks, even though the federal government is providing funding for critical transportation infrastructure. Also, as a result of restrictions on new debt, higher funding costs and other market requirements, public authorities are finding it more difficult to borrow in the municipal bond market. This has resulted in the shelving of many port expansion plans.

The Private Sector Often Is Only Interested in Investing in Revenue-Generating Port Facilities

Public port authorities have a long and successful track record working with the private sector. There are a number of fully private ports in Europe, though these are rare in the United States.

In the United States, it is very common for port authorities to grant private operators concessions to build and operate container and bulk terminals under long-term lease contracts (sometimes called build-operate transfer (BOT) contracts) or to operate existing container and bulk terminals under long-term leases. However, this model does not solve the need to finance the expansion and improvements of common user facilities (non-terminal assets) and port expansion projects. Private operators prefer to limit the scope of their

investment to equipment, the top meter of the yard and perhaps the dredging directly next to the berths.

Operators tend to resist investment obligations related to common user facilities that are an extra cost that can make their investment uneconomical. In times when port capacity was constrained (e.g., 2006 and 2007), and expected private sector profit margins were high, port authorities occasionally managed to include certain of these common user investment obligations in terminal concession contracts. But in today's environment that will prove to be extremely difficult. Currently in the United States it is nearly impossible to find operators willing to invest in common user facilities and new terminal capacity. Indeed, in the last two to three years only a handful of new container development concession contracts were successfully executed.

Private Sector Involvement Is Not Always Desirable

Another general concern port authorities have with private sector involvement is that they lose operational control and influence on future developments. There are a number of port authorities in the US that operate terminals themselves on this basis.

Availability payment P3s are an alternative contracting mechanism that can address these challenges facing port authorities. Such agreements are a "hybrid" between the publicly financed model and the privately financed model. They make use of the private sector's expertise, entrepreneurial spirit, innovation and cost efficiency, while maintaining operating control in the hands of the port authority. The main advantage from a funding perspective is that the private sector is incentivized to offer a competitive fixed price and is responsible for securing equity and debt financing for the project (while the port authority is responsible for making availability payments to the private contractor under the agreement). Therefore, this alternative could solve some of the funding gaps faced by port authorities.

An Alternative Approach to Funding and Delivering Common User Facilities and Port Expansion Projects

Under the availability payment P3 model, also referred to as a "DBFM" contract,² the private sector builds the infrastructure, attracts debt financing and maintains the infrastructure. The public side commits to make predetermined payments (availability fees) to the private party during a certain period (often 20-30 years). These payments are only due if the construction has been completed according to required specifications set forth in the contract and if the infrastructure has been properly maintained and is "available" to use under quality/ service levels agreed to in the contract. The public authority remains in full control and keeps ownership over the asset, including all revenues the asset generates. This model could address the budget constraints faced by many port authorities with respect to large capital expenditure projects, as no (or reduced) public funding would be needed to commence construction and deliver the project.

In other infrastructure sectors, such as roads, availability payment P3 contracts regularly have been used by public authorities with a long track record of successfully implemented projects. Beginning in the 1980s, availability payment P3 contracts became popular first in the United Kingdom and then in other European countries and Australia and Canada. The contracting method has been applied to many rail, road and other projects around the globe. As described above, availability payment contracts have begun to be used in the United States. Various government entities are considering availability payment transactions for road and bridge projects across the United States, including the Port Authority of New York and New Jersey, which has proposed an availability payment P3 agreement for the replacement of the Goethals Bridge.

To understand the workings of an availability payment P3 transaction we will compare it with the more traditional or classic infrastructure project procurement mechanism utilized by public authorities. In the classic approach, the authority hires a contractor to build the port asset or port project. The contractor is paid before and during construction by the authority. The authority uses a combination of public funds, its own funds and/or borrowed money to make such payments. After completion of construction, the authority procures one or more maintenance contracts with maintenance contractors.

In the availability payment P3 or DBFM approach, the authority selects a consortium that will design, build, finance and maintain the asset. Typically, a special purpose company (SPC) is set up by a consortium that will enter into a DBFM contract with the authority. The SPC will be capitalized by its shareholders with equity and will attract debt financing from banks or the capital market. With the funds raised through debt and equity contributions, the SPC will pay for the construction of the asset (sometimes the authority might pay a part of the construction through milestone or completion payments). Quite often the construction company is also one of the equity sponsors. In the figures below, the availability payment P3 structure is presented in comparison to the classic structure.

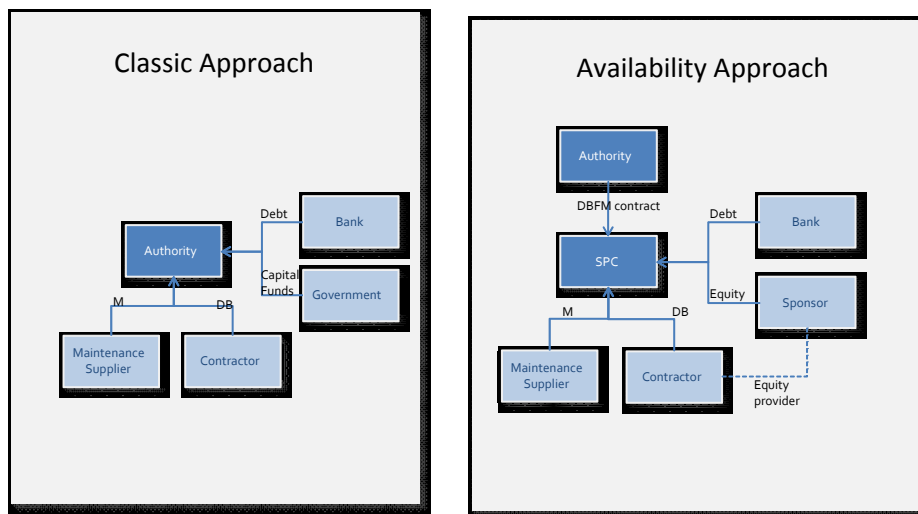


Figure 1: Classic and Availability Based P3 Structures

Once the asset is operational, the authority periodically will make availability payments to the SPC. The payments will be made for the service or “availability” of the asset. These payments will be used by the SPC to pay interest and principal repayment on the loan and pay the maintenance contractor with the remainder as a dividend for the SPC’s equity investors. Availability payments will be reduced if the asset is not available, or if it fails to comply with minimum pre-defined quality standards set forth in the contract. As a result, the private contractor bears the risk with respect to maintenance costs.

From a public authority’s perspective, the availability payments under a DBFM contract are constant (or partially increasing with inflation) for the term of the contract. In the classic approach, the payments fluctuate; large during construction with an irregular pattern of maintenance costs during the operational life of the asset (depending on the maintenance cycle, many assets need large maintenance every five to seven years).³

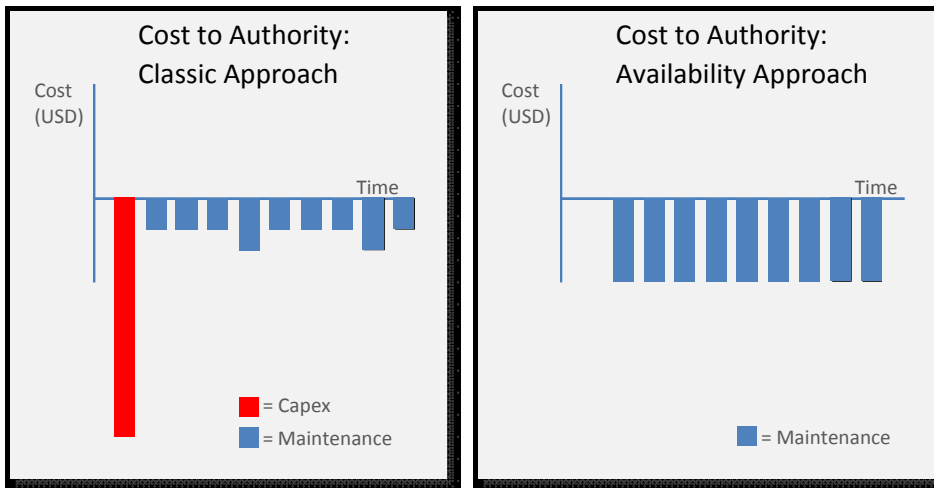


Figure 2: Classic and Availability Based P3 Costs

Advantages of Availability Based P3s

Apart from addressing budgetary challenges, the availability payment P3 approach has significant ‘value for money’ merits that make it worthwhile for port authorities to consider.

Life Cycle Cost Benefit

Typically, a competitive tender process is established to select the private consortium that offers the most attractive terms, usually through the combination of the best technical proposal and the lowest availability payments. A consortium making its bid for an availability payment contract will take into account the entire costs of the project, including construction and long-term maintenance. In order to reduce future costs, the consortium is more likely to construct the asset using more expensive materials, which require less maintenance.

In a normal construction contract procurement, where the contract will be awarded to the lowest bidder, construction companies have few incentives to use more expensive materials,

as the contractor does not get rewarded for lower maintenance costs. This leaves the public authority with higher long-term maintenance costs. Studies have confirmed that the availability payment P3-DBFM-approach can lead to a 10-20 percent life cycle cost benefit versus traditional procurement⁴ for infrastructure projects.

Improved Delivery Certainty

The availability fee is only paid to the SPC if the asset is available. If the asset or a portion of the asset cannot be used due to malfunctioning, delays in construction or long maintenance periods the SPC's availability payments will be reduced. This creates a financial incentive for the SPC to ensure maximum availability of the asset and to monitor construction progress meticulously, leading to a greater chance of on-time delivery.

Risk Transfer from the Public to the Private Side

In DBFM contracts, risk allocation is structured along the principle that each risk is allocated to the party that can best control it, which typically reduces the required contingencies and prevents overpricing. Importantly for public authorities, the risk of cost overruns and the risk of higher than anticipated maintenance costs can be transferred to the private sector.

Availability fees are defined before the start of construction and, thus, there is usually no compensation for construction cost overruns or higher-than-expected maintenance costs (unless the public authority changes the specifications of the project). As a consequence, the risk for construction cost overrun or maintenance cost overrun is transferred from the public side to the private side.

Higher Quality Designs—Flexibility

In the procurement documents, the technical specifications are usually defined toward output instead of input. This creates more freedom for the private party to design the asset, which results in a high degree of flexibility for the private partner to utilize innovative solutions.

Suitability of DBFM for Maritime Infrastructure

When undertaking an availability payment transaction, port authorities should, of course, carefully consider the procurement process and contractual consequences.

A DBFM procurement process is more complex to implement, especially the first time—it will require more time to prepare, more staff resources from the authority and the retention of experienced financial and legal advisers. Transaction costs will be higher under the availability payment model than under the standard approach. As a result, a project should be selected with a scope sufficient to justify such costs.

Authorities should also realize that the DBFM contract model could limit future flexibility; DBFM contracts are relatively long-term contracts with financial consequences if the authority

makes certain changes that affect the cost assumptions of the private partner as set forth in the contract.

For authorities with an existing or implied sub-investment-grade credit rating (lower than BBB), a DBFM contract may be feasible only if they obtain credit support from another government entity that has an investment grade rating. Lenders to DBFM consortia and rating agencies are very focused on the credit strength of the authority that makes the availability payments. In the current market, if the credit rating of the authority is below investment grade, many lenders are unwilling to lend, or will lend only for higher interest margins and higher equity leverage, which will result in higher availability payments.

Some have argued that DBFM contracts are more expensive for authorities with strong credit ratings because the interest rates at which the private side is borrowing are generally higher than those at which the public side can borrow. However, the borrowing rate is just one cost element for a public authority to consider in its choice between the DBFM model and constructing and maintaining the asset themselves. Also, when comparing the traditional approach with the DBFM model, it is important to factor in the higher risks and costs that accrue to the public sector as a result of higher than budgeted maintenance costs and cost overruns. Moreover, under the traditional approach, public authorities will not have the benefit of construction companies incentivized to minimize the life cycle costs of designing and building a project based on long-term maintenance obligations as in the case of an availability payment contract.

DBFM contracts could be suitable for various maritime infrastructure projects, including (i) levees, dikes, capital dredging of navigation channels or port basins; (ii) transportation connections related to landside port infrastructure, such as access roads, tunnels and bridges rail inter-connectors; and (iii) port expansion projects. In selecting which projects could be best contracted out through the availability payment model, the following provides some guidance.

- Asset life should be long (+20 years).
- The size of the project should be at least US\$100 million to be economical.
- Assets that need intensive maintenance over their lifetimes have more potential to bring value due to the life cycle cost benefit. A terminal substructure, for instance, requires hardly any maintenance and a DBFM approach would bring less lifetime cost benefits, but a dredging project or a connecting road that requires substantial construction and maintenance would bring greater cost benefits.

Legal Aspects

While availability payment contracts have only recently been used to deliver infrastructure projects in the United States, their extensive use internationally means various precedents have been established with respect to the consideration of legal issues and the allocation of

legal and business risks. Private contractors and their prospective financing parties are often well aware of these market precedents, reinforcing the need for port authorities first using the availability payment approach to select experienced financial and legal advisors to assist them in assessing and negotiating the issues in a DBFM contract.

Some of the most critical legal aspects of availability payment transactions are the following:

Authorization

The port authority must have legal authorization to enter into the transaction, including the agreement for the construction and long-term maintenance of the project as well as the long-term contractual commitment to make payments under the agreement. Port authorities typically are independent special-district governmental entities with broad state statutory authorization and, therefore, are likely to have such authority under existing law. If not, it may be necessary for the port authority to seek specific legislative authorization to enter into the agreement and the long-term contractual commitment to make payments under the agreement.

Procurement Process

A port authority undertaking an availability payment transaction will need to establish a procurement process that instills confidence with bidders. The recent availability payment transactions undertaken in the United States have involved procurement processes under which a short list of bidders is selected by the public authority, which then enters into an interactive process with those bidders that results in a final form of contract on which bidding is based.

Project Financing

After selection of a preferred bidder, which is typically based on selection criteria that involve the consideration of the financial proposal and technical proposal, the preferred bidder and the public authority work cooperatively to achieve the closing of the preferred bidder's financing for the project. That financing will involve a combination of equity and debt sources, which may include a specific monetary contribution from the public authority depending on the costs of the project (the higher the costs of the project the more likely a public sector contribution may be necessary). The debt financing may also involve an undertaking by the public entity to issue private activity bonds. These tax-exempt bonds are issued by the public entity for the benefit of the private contractor, and they are secured by payments to be made by the private contractor. The payments on the debt financing of the private contractor, whether through bank financing, tax-exempt bond financing or some other type of financing, are to be made by the private contractor based on the payments they receive from the public entity for the "availability" of the asset.

Allocation of Risks

The allocation of project risks between the public party and the private party to the transaction is critical to the financing of the project. While the private party retains the

construction, maintenance and financing risks, the availability payment contract allocates risks such as unforeseen site conditions, land acquisition, force majeure and delay events, changes in law and adverse actions of the public authority. In such cases, the contract will typically include some mechanism for adjustment of the payments to be made to the private party if an event occurs that has a material impact on project costs. In addition, in a project where the public authority retains the responsibility to operate the asset after construction, while the private contractor constructs and maintains the asset, particular attention must be paid to the allocation of costs, responsibilities and risks between the public authority and the private contracts with respect to operations and maintenance.

Appropriation Risk

Given that the debt financing of the private contractor is secured by the payments to be made by the public authority under the availability payment contract, a critical element for the private contractor and its financing parties will be the nature of that underlying public authority obligation. In many jurisdictions, payment by the public authority is subject to appropriation by the public authority. The private contractor and its lenders will assess the degree of appropriation risk with respect to such payment—i.e., what is the legal obligation of the public authority to appropriate and pay the required amounts and what remedies does the private contractor and its lenders have in the event such payments are not appropriated and paid? Furthermore, the private contractor and its lenders will assess the source of such payments by the public authority—i.e., whether they are paid from project revenues or other sources, such as general revenue of the public authority, grants from the federal and state government or tax revenues, and what legal restrictions, if any, may apply to such funds.

Defaults and Termination

Remedies available for defaults are critical elements of the contract both for the public authority and the private contractor and its lenders. If the public authority fails to meet its obligations (payment or other contractual undertakings), the private contractor and its lenders will seek effective rights of enforcement and the ability ultimately to terminate the agreement and receive a base level of damages specified in the agreement. If the private contractor fails to meet its obligations under the agreement, the public authority has the ability to reduce the required availability payments and, in certain cases, to terminate the agreement. This right is subject to the rights of the private contractor's lenders to step in and remedy the default as well as to a requirement that the public entity pay a base termination amount with respect to a private contractor default. The termination payment for a private contractor default is lower than it is in the case of a public entity default, in which case the private contractor will be seeking a recovery that is intended to make it whole for its lost equity value in the transaction. In the case of a private contractor default, the termination payment is typically at least a specified amount of the remaining debt on the project.

Conclusion

Availability payment contracts have a long track record of being used successfully for public infrastructure projects around the world, with such contracts being used increasingly in the Americas. While availability payment contracts have been used for road, bridge and tunnel, mass transit and social infrastructure projects, their use with respect to port projects has been limited. Port authorities in the Americas should consider this model as an alternative to other funding and procurement options when they are faced with funding shortages with respect to the expansion and improvement of their port facilities. Through the use of the availability payment model, port authorities can also achieve other important benefits, such as lower life cycle costs, risk transfer to the private sector and improved delivery certainty, while operational control can remain entirely with the port authority.

Endnotes

- ¹ It is relevant to differentiate common user facilities with terminal assets (pavement, quay walls), which are revenue generating.
- ² DBFM stands for design-build-finance-maintain; thus, without the operational component, although certain availability payment models include the operating component, with the governmental authority retaining the revenue stream related to the asset, which is typically transferred to the private contractor as part of a BOT or design-build-finance-maintain-operate (DBFMO) structure.
- ³ In certain availability payment structures, the construction costs are paid at the completion of construction, with regular maintenance costs paid annually on a constant basis, subject to inflation adjustment.
- ⁴ See “National Audit Office UK, Examining the Value for Money Deals under the Private Finance Initiative,” Arthur Andersen & Enterprise LSE (2000); “Value for Money Drivers in the Private Finance Initiative,” The Allen Consulting Group (2007); “Performance of PPPs and Traditional Procurement in Australia.”

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He also has represented the Port of Corpus Christi and the Port of Victoria in Texas on proposed public-private partnership transactions, CenterPoint Properties on its unsolicited public-private partnership proposal related to the Port of Virginia and a private sector client with respect to a proposed development at the Illinois International Port District. Joe also has advised public and private clients on path-breaking toll road, toll bridge, airport, mass transit and public parking transactions across the United States and in Puerto Rico.

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