

# Payment Mechanism: The First Form of Risk Transfer in Public-Private Partnerships

September 2014

As U.S. federal and state governments continue to grapple with scarce resources in the face of dramatic infrastructure needs, public-private partnerships have emerged as a delivery method that leverages private financing for public infrastructure. A public-private partnership (P3) creates a cooperative venture between the public sector and private companies. P3 transfers the risks of designing, building, financing, operating, and maintaining an infrastructure asset from a government entity to a group of private partners, referred to as the concessionaire. Over the past fifteen years, thirty-four states have passed legislation that incorporate P3 into the public procurement toolbox. P3 legislation is wide reaching – ranging from authorization for specific projects to broad endorsement for a variety of governmental entities to pursue the P3 model. State P3 legislation varies greatly and states do not approach P3 procurement in a standardized manner. Consistency around the type of payment mechanism, however, has emerged in P3 concession agreements across the country.

Public decision-makers and private partners pursuing P3 projects are gaining more experience in drafting concession agreements, particularly in negotiating terms that transfer risk to the party best able to manage such risk. The concession agreement sets forth the payment mechanism, which is the commercial arrangement by which the concessionaire will earn its revenue. The following paper will discuss forms of payment mechanisms, how demand risk influences the choice of payment mechanism in a concession agreement, and trends in use of payment mechanisms in the U.S. market.

## Payment Mechanisms in P3

There are two primary forms of payment mechanisms: availability and revenue-based. The choice of payment method is a form of risk transfer in the concession agreement because the payment mechanism allocates demand risk to the entity best able to manage it. Demand risk is the risk that the infrastructure asset does not generate enough user fees to pay for its design, construction and maintenance.

An availability payment mechanism means that the government entity will make monthly payments to a concessionaire for making the infrastructure asset available for use, regardless of whether the infrastructure asset is actually used by the government entity. In order to receive payment, the concessionaire must ensure that the asset meets certain performance standards and is “available” for use by the public. With an availability payment mechanism, the government entity retains the demand risk for the project.

A revenue-based payment mechanism is when the demand risk resides with the concessionaire and the concessionaire is expected to recoup its development, financing, construction and maintenance costs from the user fees that are charged to the public for use of the asset. By collecting revenues directly from those that use the infrastructure, the concessionaire can repay the lenders, pay to operate and maintain the asset and deliver a profit to its investors.

## Payment Mechanisms and its Implications

Political risk plays a large role in the decision-making made around the choice of which payment mechanism to use in a P3. Political risk is the chance that political instability may upend the P3 procurement process or disrupt investors’ and lenders’ returns on a P3 project. Some states, such as Colorado, have debated bills that would require greater oversight over P3 procurement through public processes. Bills such as these indicate that some citizens are uncomfortable with the greater role a private party may play in providing a public good. At the same time, a burgeoning public movement against P3s (such as the Texans United for Reform and Freedom) has rallied against user-fee driven

infrastructure projects. Policy changes as the result of fluctuating public sentiment has made P3s more susceptible to procurement cancellations and project implementation issues. The choice of a payment mechanism gives government a way to grapple with this risk. On one hand, the public sector may limit the private gain that may come from a P3 project with an availability payment mechanism. This payment mechanism improves the public's perception of the project as that of a public "good" rather than a private "profit". On the other hand, the government may choose to transfer demand risk to a concessionaire, which would allow the government to allay public fears that the P3 project may be too expensive to build and maintain. Ultimately, the way in which a P3 payment mechanism is structured helps the government to manage its political risk with the public.

Governments also consider how user fees are managed when looking at payment mechanisms. With a revenue-based payment mechanism, rate-setting is often a shared responsibility between the government and the concessionaire. An availability payment mechanism, though, gives the government sole authority to set user fee rates if applicable. If the government has an ability to set and administer user fees, the public may perceive the project more favorably than if the private partner was also given some responsibility to set and administer user fees.

Governments also select a payment mechanism depending on the strength of their financial status. In a P3 project that relies on availability payment cash flows, the credit rating of the government entity is a critical factor in determining the cost of debt. Since the government entity retains the demand risk, this reduces the risk premium in the private cost of capital needed to finance the project. Lenders to a P3 project make loans to the concessionaire based on the fact that they anticipate getting reimbursed through future cash flows. An availability payment method ensures – depending on the performance of the concessionaire – a steady revenue stream regardless of whether the project receives user fees. In other words, the government guarantees a full availability payment if performance standards are met even if there are not enough user fees to make up that payment. In this sense, an availability payment mechanism from a highly rated government entity is viewed more favorably by rating agencies and lenders and decreases the overall cost of the P3 project. If the government entity does not have a strong history of honoring its contractual and financial obligations, then the entity may not obtain a rating sufficient for lenders and may then be obligated to transfer demand risk to the concessionaire in order for a project to reach financial close.

The revenue-based payment mechanism fits P3 projects that have a concrete ability to produce user fees, particularly those projects in which demand for the asset is quite certain. Toll road projects that aim to alleviate congestion, for example, are those P3s that have verified ample demand. This guaranteed demand inspires confidence from investors and lenders in a revenue-based project. Interestingly, fifty-percent of U.S. projects anticipating using a P3 delivery method (those projects that have not yet reached the transaction launch phase and in which P3 is a considered procurement method) may also use the revenue-based mechanism. This even-handed split between payment mechanisms shows that payment mechanism is dependent on the government's preferences and the specific risk profile for the project.

## Payment Mechanism Trends

Starting in the 1980's, the availability payment mechanism became more prominent in the United Kingdom, Canada and Australia as these countries executed P3s for vertical infrastructure, such as hospitals and educational facilities. The method allowed public sector entities to gain the benefits of a P3 concession model despite lacking a discrete revenue stream for each project. Today, 96% of all P3

projects in Canada use the availability payment mechanism, regardless of whether the asset is able to generate freestanding revenue.

When P3 projects first developed in the United States, availability payments were often associated with projects that did not generate direct revenue, such as vertical infrastructure like a hospital or courthouse. In the United States, the availability payment mechanism is increasingly used in projects regardless of whether the asset has the ability to generate revenue directly. In other words, U.S. projects across all sectors – including toll roads – use an availability payment mechanism that gives demand risk to the public sector. Of the 19 projects in active procurement in the U.S. as of September 2014, 65% of projects intend to use the availability payment mechanism and only five transportation projects will employ a revenue-based payment mechanism.

There are a couple of reasons for the current preference for the availability payment mechanism, especially if one considers this trend in light of some of the early P3 projects. Some of the first P3 projects in the U.S. used a revenue-based payment method and suffered from toll revenue shortfalls. Unpredictable user demand makes the project more risky for the concessionaire and its lenders and investors because concessionaires built financial models around assumptions made on user demand for the project. When user fees do not meet expectations, then revenue-based projects do not have the stable and predictable cash flows needed to repay the debt. The lending community and concessionaires, based on their experience with the early projects that were revenue-based, have become more risk-averse and cautious in proceeding with user-fee based P3s. This is one of the most important factors driving the trend toward availability payment P3s in the U.S.

The trend in availability payment mechanisms has clear consequences for the U.S. P3 market. Some consider the government's ability to make payments over the course of a 25 to 50 year concession term to be uncertain. As governments continue to face serious fiscal distress and continue to see downgraded credit ratings, financiers and investors question whether government may re-consider its obligations. When government takes on demand risk, there is greater pressure on government to ensure there is adequate funding –from user fees or other sources (such as general tax revenue) – to compensate concessionaires. The risk that government may not secure funding for its contracts is called “appropriation risk”, or the risk that sufficient funds will not be appropriated from a capital fund, general operating budget, or from other sources to pay the concessionaire. While there are some significant benefits for government owners in the availability payment structure, this payment mechanism is not entirely free of all risk for concessionaires.

## Conclusion

P3 payment mechanisms are one of the principal forms of risk transfer between parties. While the government assumes the demand risk with an availability payment mechanism, the government gains a lower cost of capital and greater control of its ability to manage its political risk. For P3s in the United States, the trend toward availability payments shows that the public sector is interested in responding to concerns about demand from concessionaires as well as concerns from the public about P3 as a procurement method. As the choice in payment methods for P3 illustrates, the P3 model enables public and private stakeholders to make different contractual choices that best allocate risk and lay a foundation for a mutually reciprocal partnership.

## Contact Information

**Tariq Taherbhai**

Senior Director

Aon Infrastructure Solutions

+1 312.381.3484

[tariq.taherbhai@aon.com](mailto:tariq.taherbhai@aon.com)

**Caitlin Ghoshal**

Associate

Aon Infrastructure Solutions

+1 312.381.3055

[caitlin.ghoshal@aon.com](mailto:caitlin.ghoshal@aon.com)

## About Aon

Aon plc (NYSE:AON) is the leading global provider of risk management, insurance and reinsurance brokerage, and human resources solutions and outsourcing services. Through its more than 66,000 colleagues worldwide, Aon unites to empower results for clients in over 120 countries via innovative and effective risk and people solutions and through industry-leading global resources and technical expertise. Aon has been named repeatedly as the world's best broker, best insurance intermediary, best reinsurance intermediary, best captives manager, and best employee benefits consulting firm by multiple industry sources. Visit [aon.com](http://aon.com) for more information on Aon and [aon.com/manchesterunited](http://aon.com/manchesterunited) to learn about Aon's global partnership with Manchester United.

Copyright 2014 Aon Inc.  
Placeholder for copyright