Effective Risk Allocation
Aligning risk transfer and incentives in public-private partnerships

The public-private partnership (P3) model for infrastructure delivery has drawn increased attention in the United States as public authorities, facing difficult political and economic headwinds, are seeking alternative solutions for project delivery. The P3 model is predicated upon the notion that there are certain risks that are best managed by the private sector and others that are best managed by the public sector. Accordingly, the model provides contractual structures that offer increased flexibility in the allocation of risk and responsibility between project stakeholders. Although much of the focus around P3 procurement is centered on the transfer of risk from the public sector to the private sector through the concession agreement, private sector bidders should also consider how risk allocation within their consortiums can strengthen their bids.

Value for Money

![Table showing cost comparisons between Traditional Delivery and P3 Delivery]

Efficiency and savings are achieved in a P3 by creating an optimal allocation of risks and responsibilities for the delivery, operation, and maintenance of an asset over the lifecycle of the project. The expected cost savings achieved through P3 delivery in comparison to traditional delivery is referred to as Value for Money (VfM). A VfM study is typically conducted prior to the choice of delivery model for an infrastructure project in order to determine the most cost-effective delivery solution. Total project costs considered in a VfM calculation include base costs, financing costs, ancillary expenses and the cost of risks retained by the public sector over the lifecycle of the project.

P3s realize VfM primarily through the transfer of risk from the public sector to the private sector. Effective risk transfer in this model should consider both (i) the cost for each party to manage a given risk, as well as (ii) aligning risks within a project in a manner that produces the appropriate incentives for each party. Furthermore, once a risk is transferred to the private sector, each private sector bidder must decide how to effectively allocate the risk within its consortium.

In a VfM calculation, the transfer of a risk to the private sector results in a reduced cost for the public sector's retained risks. However, the risk transfer will also increase the base cost of the private sector's bid as the bid must now include the costs for managing the additional, transferred risk. In aggregate, if the reduction in the cost of retained risks (by the public sector) is greater than the increase in all other project costs, then VfM is generated.

Efficient risk transfer refers to the transfer of risk to the party that is able to manage that risk at the lowest cost. Effective risk transfer, as referenced in this article, is the alignment of efficient risk transfer with the appropriate incentives to create the most efficient delivery for the project as a whole.
Additionally, creating a more appropriate alignment of risks and incentives through effective risk allocation within the concession agreement should produce better on-time, on-budget delivery – even if VfM is neutral. In fact, this hypothesis is being confirmed in practice – a study by the United Kingdom’s National Audit Office found that P3 projects have been delivered on-time 76% of the time, and on-budget 78% of the time, versus traditional projects, which were delivered on-time only 30% of the time, and on-budget only 27% of the time.

In order to achieve optimal project delivery, the P3 model’s ethos of effective risk transfer should extend beyond the concession agreement. A private sector bidder must allocate the risks for which it is responsible among the members of its consortium in the appropriate manner. Furthermore, bidders must consider how best to transfer risks to insurance, surety, or financial markets through various risk transfer instruments. Bidders will attempt to find the best allocation of risk that reduces both expected costs as well as uncertainty in order to formulate a bid that is both competitive and profitable. Effective risk allocation within a consortium should create more competitive and cost-effective bids and, in addition, increase VfM for the procuring authority.

The first step in effectively allocating risk within a consortium is to identify all risks that will be borne through the concession agreement. A private sector bidder must evaluate each risk and decide whether to tolerate the risk (by accepting the risk as is), treat the risk (through operational changes such as implementing best practices or enforcing safety procedures), transfer the risk (through intra-consortium agreements or risk transfer instruments), or terminate the risk (by ceasing its pursuit of the project or renegotiating the concession agreement). Further, each party within the consortium will have to similarly evaluate how best to manage the risks it has been assigned via various intra-consortium agreements. Ultimately, a bidder should allocate each risk to the party within the consortium that is best able to manage it, just as the concession agreement aims to do with respect to the public authority and the concessionaire.

The outlined approach to intra-consortium risk transfer may seem intuitive. Yet, it can be easy to lose sight of this risk allocation principle as other factors come into play, such as the competing commercial objectives of consortium members or a member’s leverage in a negotiation. If a consortium deviates from the principle of assigning risk to the party best able to manage it, it will likely carry inefficient risk contingencies in its bid, thereby increasing the cost of the bid. For example, latent construction defect risk should not be transferred to the O&M contractor. An O&M contractor would likely carry large contingencies to manage such a risk, should it even accept it in the first place. Rather, latent construction defect risk ought to be held by the design-builder, as the design-builder will be best positioned to manage that risk.

Furthermore, incentives should be aligned with the risk allocation created by intra-consortium agreements, much like risk allocation and incentives are aligned within the concession agreement. Imposing financial consequences, such as liquidated damages, for late or deficient delivery on the appropriate consortium members can be an effective strategy in P3s. Such a strategy can ensure that the alignment of risk allocation and incentives that is reflected in the concession agreement is “dropped-down” into the subcontracts. As a result, the alignment of risk allocation and incentives across all the participants in a P3 project will be strengthened.

There will inevitably be a number of risks that neither a concessionaire nor its contractors can retain without carrying inefficient contingencies. Since the members of the consortium do not typically have the balance sheet to absorb
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catastrophic losses, insurance represents an excellent strategy to mitigate project-specific hazards and liabilities. A comprehensive insurance program protects against a wide range of risks, such as contractor and subcontractor default, design risks, accidental property damage, general liability, and workers’ compensation loss. Both financiers and the public sector rely on insurance because it protects against the financial burden of project delays or failure and secures the concessionaire’s ability to continue to provide the contracted service. Insurance programs should be structured and sized to provide comprehensive coverage while avoiding unnecessary risk contingencies in order to minimize project costs and, consequently, achieve greater VfM. To further drive alignment between risk and incentives, risk transfer instruments should be procured by the consortium party to which the relevant risk(s) has been allocated. For example, performance security instruments such as surety bonds or letters of credit should be procured and placed by the design-build contractor.

Ultimately, effective risk allocation drives more competitive bids and reduces risk exposure for the concessionaire while simultaneously increasing VfM for the public sector. Although private sector returns are not tied to the realization of VfM on a project, the public perception of the cost and delivery of a project affects the procurement of future projects. Given the nascent state of the US P3 market and the continuing political and legal risks associated with P3 procurement in the US, success for the industry is strongly linked to the public perception of the current wave of P3 projects. Thus, private sector bidders that have invested time and capital in creating integrated platforms for the purpose of pursuing P3 opportunities in the US must be cognizant of the need to structure projects that benefit all project stakeholders in order to maximize the competitiveness of their bid as well as the future US P3 pipeline.

Case Study: Project Financing and Effective Risk Transfer

The role of project financing provides an interesting example of the interplay between maximizing efficiencies and aligning incentives in the P3 model. Private financing will almost always be more expensive than public financing due to the tax exemption provided to public debt. Despite this fact, private financing is a key element of effective risk transfer in the P3 model.

Private financing is essential to the success of the P3 model because it aligns financing risk with the design, construction, operations and maintenance responsibilities of the private sector. Conversely, in traditional design-bid-build delivery, the public sector retains the financing risk and conducts separate procurements for the design and construction of the asset. Traditional delivery thereby disconnects financing from the private sector’s design and construction obligations creating a potential moral hazard, as the consequences of budget and schedule overruns fall to the public sector, not to the contractor tasked with managing the construction schedule and budget.

In order to mitigate the increased costs of private financing, public sector authorities will often provide federally-subsidized financing instruments to bidders. Instruments such as TIFIA loans or Private Activity Bonds allow private bidders to reduce the cost of private financing, thereby lowering the overall project costs which, in turn, should help to maximize VfM. Although the use of such instruments is not mandated, bidders will choose to utilize these financing tools to lower the costs of their bids in a competitive procurement process. This is in spite of the fact that such instruments will have more cumbersome application and due diligence processes than traditional private bank or bond financing solutions.

This simultaneous transfer and subsidization of financing risk illustrates both the distinction and interplay between efficient and effective risk transfer in a P3 project.
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