

Issues and Considerations for Value for Money Analyses

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When a public-private partnership (P3) delivery method is being considered for an infrastructure project, governmental entities typically rely on a “value for money” (VfM) analysis to compare lifecycle costs of designing, building, financing, operating, and maintaining an asset when using various project delivery methods. A VfM analysis typically compares conventional project delivery approaches, such as design-bid-build (DBB) or design-build (DB) to a procurement approach with greater private sector involvement, such as a design, build, finance, operate, and maintain, referred to as a “public-private partnership,” or “P3.” This memo discusses important issues and considerations when designing, understanding, and evaluating VfM analyses.

VfMs are only as sound as their inputs, meaning that the assigned costs and quantified risks associated with each project delivery method must be reasonable, justifiable, and supported by evidence. Often, popular but misguided beliefs about the efficiency of the public sector versus the private sector shadow these types of analysis and are reflected in the assigned costs and quantified risks for each project delivery method, and ultimately in the outcome of the analysis. ITPI encourages governmental entities utilizing a VfM analysis to deeply understand what is actually being compared between procurement methods, what assumptions are being made about costs and risk transfer, and what types of measurements are excluded from this type of analysis.

Issue #1: What types of procurement methods does the analysis compare? Is this a sufficient analysis?

It is important to understand and specify what procurement methods the analysis compares. For example, some VfM analyses compare a P3 procurement model with only one other procurement method utilizing public financing, such as a design-bid-build model. However, depending on the project, it may make sense to compare the P3 model with additional procurement models that have been shown to shift construction risk to the private sector, such as design-build or Construction-Manager-at-Risk (CMAR), which in some cases may reduce the cost of coordination during the design and construction phases and allow shifting of construction risk.

Issue #2: What are the detailed assumptions used in the analysis? Are these assumptions justified? Are they based on the actual experience in similar infrastructure projects?

A VfM analysis is based on a set of assumptions, which impact the bottom-line comparison. Some assumptions seem straightforward, but others may be speculative or inaccurate. For example, an analysis might assume that labor costs will be lower for the P3 option when

compared to a project delivery method where the public sector is responsible for operations and maintenance. It is important to determine whether this assumption of labor cost savings in the P3 model is appropriate and accurate. What is this assumption based on? In this particular example, is the analysis assuming that there will be fewer workers in the P3 option? Is this analysis assuming that workers will be paid less or provided with fewer or less costly benefits? Are these assumptions in line with the governmental entity's plan and requirements for the project? It is critical to fully understand what assumptions underlie various cost comparisons and if these are accurate or in line with actual plans and project needs.

If higher public sector costs are identified in the analysis and the assumptions underlying the higher costs are sound, it is important to consider and explore whether there are ways that the governmental entity can mitigate or avoid these higher costs in a conventional delivery method approach. For example, if the P3 model assumes private sector adoption of new technologies to facilitate greater efficiencies and therefore achieve cost savings, is it possible for the governmental entity to also utilize these technologies and achieve these efficiencies if a conventional delivery model is used?

Many assumptions underlie allocations of risk between various procurement methods, which will be discussed in greater detail in Issue #3.

Issue #3: How is risk allocated to the procurement methods being compared? Are these risk allocations justified? Are these risk allocations based on a systematic assessment of a large sample of past projects?

Quantifying risk transfer in the VfM process is an important part of the process, but it can quickly become more an art than a science. This quantification of risk transfer is almost always used to justify the P3 delivery method. In most cases, the VfM analysis will show that conventional project delivery methods financed with tax-exempt bonds issued by the governmental entity are cheaper than a P3 model. This is often largely due to cheaper financing costs of public financing when compared to the costs of capital required for private equity contributions and private financing. However, VfM analyses often assume that conventional delivery methods with greater public sector involvement will have higher probabilities of risk than a P3 model, and are able to derive greater "value for money" for the P3 model through this quantified risk allocation.

For example, an analysis may assume that a conventional project delivery method will have a higher probability of construction delays, equipment failures, operating cost overruns, and/or problems with integrating construction and operation phases, etc. It is critical to understand why consultants allocated higher risk levels for the conventional delivery method for each risk identified in the analysis. Are these risk allocations based on the experience of past projects the governmental entity has completed? Are these risk allocations based on the track record of the contractors bidding on the project? Are these risk allocations reasonable, justified, and supported by evidence?

While there hasn't been a systematic review of risk assessment of P3 projects in the U.S., audits of P3s in the Canadian province of Ontario highlight the problems with risk allocation in VfM analyses. Ontario has engaged in numerous P3 projects, 75 of which were examined in a [2014 audit](#). All of the projects were justified as P3s on the basis that they transferred large amounts of risk to the private sector. The risks retained through conventional procurement were estimated to be about five times higher (\$18.6 billion) than if they proceeded as P3s (\$4 billion) with an assumed \$14.6 billion transfer of risk through a P3 model. The auditor estimated that the costs of 74 of those P3s were actually \$8 billion more expensive than if they had been delivered using conventional project delivery methods. The auditor explained, "There is no empirical data supporting the key assumptions used by Infrastructure Ontario to assign costs to specific risks," and, "In our discussions with the external advisors, they confirmed that the probabilities and cost impacts are not based on any empirical data that supports the valuation of the risks, but rather on their professional judgement and experience." The auditor also found that some risks attributed to conventional delivery should not have actually been included, and some risks that were assumed to be transferred to the private sector in the P3 model were not actually supported by the project contract.

We highly recommend that the governmental entity understands how and why consultants allocate risk levels in each delivery method for each risk identified in the analysis.

It is important to note that some risk can never actually be transferred. A VfM analysis may assume that the private sector will take on operational risk, but if something critical goes wrong in a large project, the public's health and safety may be compromised, which is never taken into consideration in these types of calculations. It is important to consider impacts beyond the direct impacts of these identified risks to the project—including potential impacts to the larger community—and determine whether the public may be at additional risk without public control of the project.

Issue #4: What else does the governmental entity value that is not included in the analysis?

While the VfM analysis considers a number of financial variables in its calculations, it does not take into consideration other factors for which the governmental entity may assign value. For example, non-financial public interest criteria including regional economic impacts; affordability and accessibility of the infrastructure to low-income communities; the number of high-quality jobs the project will create and access to these jobs by disadvantaged communities; environmental impacts; and accountability and transparency measures are all items for which the governmental entity may assign value, and each procurement option may have different implications for each of these issues. However, the current VfM analysis method fails to account for or even acknowledge the existence of "value" outside the narrow range of financial factors it evaluates. We encourage the incorporation of or the performance of additional analyses of these public interest considerations to understand the full ramifications of each project delivery approach.

Issue #5: Who will oversee and review the value for money analysis?

As discussed above, it is important to fully understand the details of the analysis. However, governmental entities often pay most attention to the bottom-line recommendation of the analysis without understanding how that recommendation was derived. We recommend that the governmental entity have adequate staff with proper expertise to oversee the design and development of the VfM analysis and thoroughly review it after completion, keeping in mind the issues and considerations raised above.