

---

# SPECIAL REPORT

## TD Economics



March 31, 2015

### ONTARIO P3s - COST DOES NOT EQUAL VALUE

*Focus on \$8 billion excess cost for P3s in Ontario ignores the value to taxpayers*

#### Highlights

- The Ontario Auditor General's recent report on Alternative Financing and Procurement projects drew attention to the seemingly higher cost of these projects relative to traditional public sector procurement.
- This narrow focus on the higher tangible costs of P3s does a disservice to an innovative model of government procurement which has enabled a more transparent and accurate accounting of the full costs of a project before construction begins. In contrast, final costs for traditional projects are frequently much higher than initially budgeted, and projects are frequently delayed. This makes planning and budgeting for projects with any degree of certainty very difficult.
- The Auditor General's report acknowledged the many benefits P3s have brought to infrastructure procurement, including an excellent track record of being on time and on budget.
- Ontario is set to spend \$130 billion on infrastructure over the next ten years. Leveraging the expertise and project management discipline of the private sector through the use of P3s where appropriate should continue to be a tool in the infrastructure procurement toolbox.

Ontario's Auditor General (AG) released its audit on Infrastructure Ontario's Alternative Financing and Procurement (AFP) program late last year. AFP is the public-private partnership (P3) model that has been used in Ontario since 2005. Focus centered on the AG's assertion that AFP arrangements cost Ontario taxpayers \$8 billion more than if the projects were completed successfully using traditional government procurement. Opponents to P3s have seized upon this finding as evidence that P3s are inefficient and an affront to taxpayers.

While the AG makes many valid points about how Infrastructure Ontario (IO) could improve some of its processes, the focus on the \$8 billion in "excess costs" oversimplified the AG's analysis, and ignored many of the valuable benefits that AFP projects have brought. It is a case of knowing the price of everything, and the value of nothing. On the surface, P3s appear to have a higher price tag on the tangible aspects of the project than in a traditional procurement project. However, that ignores the fact that the tangible costs in an AFP are a more complete pricing of all of the risks of the project. Since the private contractor in an AFP must budget for the probability of having to pay out on the risks of the project, the expected value of these costs are better internalized in the bid. In contrast, the public sector cost as measured by the AG does not include a pricing of the risks that inevitably exist in a large public infrastructure project. It also ignores the value for taxpayers achieved by reducing the overall risk of the project by transferring risk to the party best placed to manage it.

Since the Ontario government plans to spend \$130 billion over the next ten years to upgrade its transportation, health care and education infrastructure, it is important to put the \$8B figure in context and set the record straight about the benefits of properly applied P3s. Reverting entirely back to old models of procurement would represent a major step backwards for the province.

## Background on P3s in Ontario

Similar to other P3 programs around the world, the AFP model for procuring infrastructure assets in Ontario has been developed in response to cost overruns and delays common in traditional public sector infrastructure projects. (For more on the rationale for P3s in public infrastructure procurement generally, please see the text box on page 3) Under an AFP, the government owner establishes the scope and purpose of a large infrastructure project while the design and construction, and occasionally operation and maintenance, work is carried out by the private sector after a competitive bidding process. In being required to design and build the projects, the public sector is protected from risks of design deficiencies, which can lead to change orders during construction and hence cost overruns. The province only pays for the project after it is substantially completed, and construction is financed privately. Therefore, private capital takes the risk that the builder doesn't perform on time and on budget. A portion of the construction price is withheld following completion, which necessitates long term financing to be repaid over the life of the asset. This gives the public sector a tool to ensure assets are built to last and perform as expected.

The AFP model is typically only used for large, complex infrastructure projects where the risks of cost overruns or delays are the highest, so the payoffs to mitigating these risks offset the higher transaction cost. On large projects, an AFP helps mitigate "integration risk", whereby the public sector might traditionally have contracted out parts of a large project to various parties, increasing the risks that the various parties will not work together seamlessly. Finally,

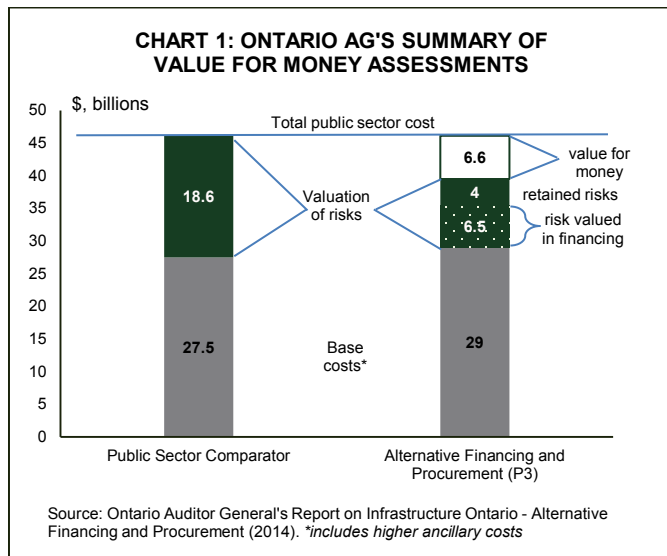
AFP contracts are not privatizations – public ownership of the asset is retained, but it is a contractual arrangement for building and sometimes maintaining and operating a public sector infrastructure asset.

Ontario's AG acknowledged in her report that IO has a strong track record of delivering AFP projects on time and on budget. An external review conducted in 2014<sup>1</sup> of the 37 AFP projects that had reached substantial completion at the time of the review, 97% were completed below budget and 73% were completed on time or within one month of their scheduled completion date. More than half of the AFP projects completed or underway in Ontario were in the Health care sector, with a significant portion in Justice and Transit.

### Addressing the Ontario Auditor General's concerns

The key point in the Ontario's AG's report that caught attention was the assertion that for the 74 projects either completed or underway at the time of the audit, tangible costs were estimated to be nearly \$8 billion higher than if the projects were contracted out and managed successfully by the public sector. Looking at Chart 1, the \$8 billion represents the difference between the sum of the base costs for AFP (including a premium for private sector profits), higher ancillary and financing costs and the base, plus ancillary and financing costs for the public sector. However, what was discussed less in news reports was that these higher tangible costs are more than offset by the estimate of the costs of the risks associated with the public sector contracting out and managing the construction and in some cases the maintenance of the project. In valuing these risks IO estimates that overall there is \$6.6B in savings by using the AFP model on these projects. This is the "value for money" in Chart 1.

A large part of the \$8B in higher tangible costs the AG singled out was \$6.5B in higher financing costs. As mentioned earlier, higher borrowing rates are a common criticism of P3s worldwide. However, this misses a key point that the government's lower financing rate does not price the project-specific risk<sup>2</sup>. The higher market-based financing rate reflects the market's pricing of the risk inherent in a given project. The lower public sector borrowing cost assumes that conventional procurement involves no risk, when in reality there are huge risks of cost overruns due to unforeseen issues that cause delay and any number of inevitable hiccups. These risks must be accounted for, and priced, when considering the true cost of an infrastructure project, and that is what the risks portion of the public sector cost (see Chart 1) in IO's VfM analysis attempts to do.



### General Rationale for P3s in Public Infrastructure Procurement

In the past, large complex infrastructure projects in many countries have been plagued by cost overruns and delays. Governments worldwide had looked for other models to deliver infrastructure more efficiently and with greater cost certainty. Other countries like the UK and Australia took the lead, but Canada has since become a P3 leader. Canada's P3 market is now known to be one of the most stable in the world. However, there are some costs and drawbacks frequently made against P3s:

- **Higher private financing rates** – on the surface financing costs more.
- **Higher transaction costs** – these are the costs (lawyers, consultants, etc.) related to the complex nature of structuring the contract.
- **Lengthy lead times** – P3s have more planning upfront, and can take longer to get to the final project agreement stage. However, Canada is recognized as a leader in having shorter procurement periods than other jurisdictions.
- **Concerns about appropriate risk premia and transfers** – government needs to ensure that it isn't paying too much to transfer certain project risks to the private sector. Also that these risks are indeed borne by the private sector partner. Again, Canada seems to have a better track record than other jurisdictions.

Many jurisdictions have judged that the benefits of the model outweigh these costs. Here are the primary benefits of the P3 model :

- **Time savings** – although the tendering and contracting phase of a P3 may take longer due to the complexity of projects and contract arrangements, the construction phase is often accelerated. This minimizes public inconvenience and construction-time costs relative to traditional procurement. If a project is delayed, in most cases the private contractor would bear the cost.
- **Cost savings** - according to value for money (VfM) assessments, the benefits associated with lowering the overall risk of a project (and hence expected cost) through a better allocation of risk between the public and private sector partners, more than outweigh the additional ancillary and financing costs (see Chart 1).
- **Optimization of spending** (lifecycle focus) – better optimized for life-cycle maintenance in the case of projects with a maintenance or operation portion to the contract.
- **Long-term guarantees on service and maintenance** – helps avoid the tendency of governments to underinvest in maintenance. Due to budgetary pressures, there is a propensity to avoid spending on maintenance of public sector assets.
- **Innovation** – results-based funding provides flexibility for innovation solutions (not just cost savings), particularly in the pre-bid stage.
- **Checks and balances in contracting** – facilitated by using availability payments where the government can hold back payment for incomplete work.
- **Discipline of private financing** – with private sector financing there tends to be greater due diligence and scrutiny of project plans. When lenders and contractors are putting their own money at risk, they have “skin in the game” so to speak, and therefore their incentives are aligned to get projects done on time and minimize cost overruns.
- **Certainty** – once the P3 contract has been awarded and a contract settled on, for the most part that is it, there is a high degree of certainty on cost, schedule, quality, availability, and service. This has been born out in IO's track record on its P3 projects so far. This certainty of timing and budget makes it much easier for the ultimate public sector user (like a hospital) to plan.

That is part of the reason the “retained risk” section of the AFP cost bar is smaller than the public sector one in Chart 1, the valuation of some of the risks are incorporated in the financing costs. Also, by allocating risks between the public and private sector according to whoever can best manage them, the overall risk of the project is reduced.

Furthermore, the difference between the overall Ontario government’s borrowing rate, and the private sector financing rates for the individual projects has narrowed over time (see Chart 2). Clearly as the market gains more experience with these types of projects, the cost for Ontario to insure against these project-specific risks has declined. For example, in a recent P3 deal the spread on the long term financing was only 167 basis points in contrast to 328 basis points on a similarly sized deal in late 2010. Furthermore, these spreads are versus Government of Canada bonds. Since Ontario has higher financing costs than the federal government, the difference in private versus Ontario government financing is even smaller. Therefore, the AGs \$6.5B total in higher financing costs on past projects likely overstates the premium paid for private sector financing going forward.

The other problem is that the AG states that AFPs cost \$8 billion more “than it would be if the projects were contracted out and successfully managed by the public sector”. That is a big if. Anecdotally one can find many large public sector infrastructure projects that have been significantly delayed and gone way over budget. For example, the Spadina subway extension is currently \$400 million over budget, and has been delayed by close to two years<sup>3</sup>. Toronto’s Union Station Revitalization is roughly \$155 million over budget and roughly ten months behind schedule. Examples like

these are one reason that jurisdictions started pursuing P3s in the first place. The AG’s report actually praises IO’s strong track record of delivering projects on time and on budget.

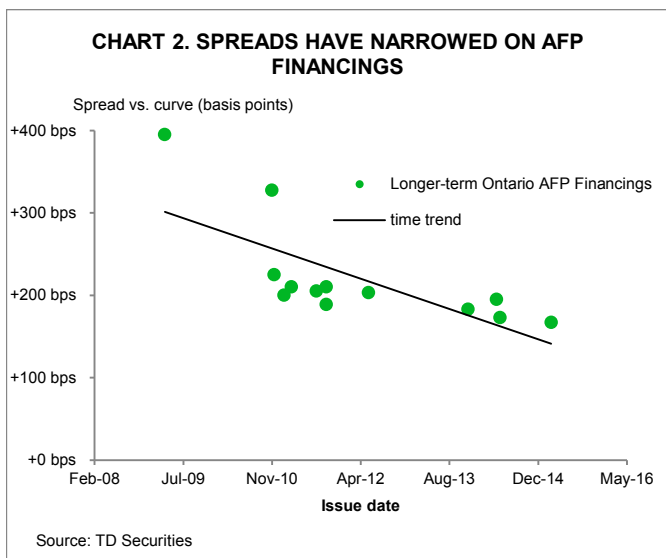
While few would dispute the anecdotal evidence of traditionally procured projects that went significantly over budget and experienced long delays, the AG is correct to point out that this assertion is not based on rigorous evidence. It would be helpful if a more thorough benchmarking analysis was done. This could compare the now significant number of P3 projects across Canada to a similar sample of traditionally procured projects to more precisely quantify the advantages of the P3 model versus traditional procurement and help dispel some of the myths that exist around P3 projects. Such studies have been done in the UK and in Australia<sup>4</sup>.

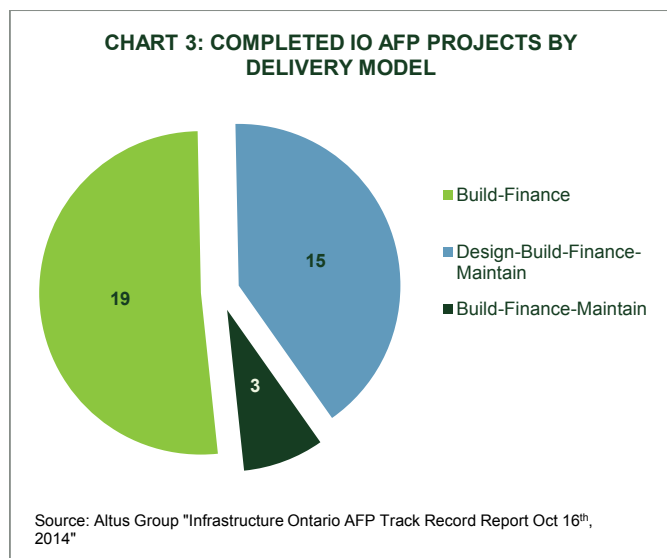
The Australian benchmarking study found that P3’s total cost was far closer to the budgeted cost than traditional procurement, delivering on greater cost certainty. And on timing, while traditional projects perform better on timing in the planning stage, they frequently endure significant delays once the contract has been signed. Since the use of P3s has increased across Canada, and is being encouraged by the Federal Government’s New Building Canada Fund and P3 Canada fund, it makes sense for the Federal government to commission such a study to better quantify the performance of P3s in Canada.

The AG also asserted that if the same contracting discipline present in a P3 model was used in traditional procurement, the province could then finance projects at a lower rate. However, it is very difficult to align the incentives of a private sector contractor who has none of its own money at risk in the project, as is the case of traditional models. One could think of bonus payments for on-time completion or penalties for delays, but in practice these are difficult to enforce. Anyone who has done major renovations on their home knows that a homeowner doesn’t have very many levers to ensure a contractor is able to keep on schedule. Or unforeseen costs that inevitably arise during construction are born by the homeowner, not the contractor.

In theory, the government could sue contractors who do not meet construction timelines or stay within initial budgets, but in practical terms it is not the same level of protection as completion payments provide under an AFP model. It is easier for a government to withhold a completion payment under an AFP, than it is to sue a builder after the fact.

When a private sector consortium under an AFP is paying financing costs during the construction period, and will only





be paid by the government once the project is completed, it has a strong profit motive to complete on time. It is very difficult to align these incentives in a traditional procurement process when a contractor has no “skin in the game” as it were.

The AG raised additional concerns about processes and documentation at IO, which the agency committed to improve, and other methodology issues with the Value for Money (VfM) analysis. The AG estimates that by correcting certain methodological issues it identified, 24% of projects would not have shown a positive value for money under a P3 process. These points may be valid, and IO is revising its methodology, but the vast majority of projects would still have met the hurdle for AFP. Moreover, it is not a reason to dismiss the AFP model entirely.

### Additional benefits and considerations for P3s in Ontario

There are arguably more benefits to the P3 model that could be better quantified, and might tip the balance further in favour of P3 delivery in many cases. In its VfM methodology, IO refers to unquantifiable risks, such as the benefit of having a project delivered on time. For example, that it is difficult to put a dollar value on a reduced wait time at a hospital once a new facility is built. However, disciplines within economics do attempt valuations of things that haven’t traditionally had a monetary value, like natural capital (a river or a wetland). Arguably a greater attempt could be made to put a value on a facility or a road being completed on time. In the case of a transit project it could be quite straightforward, by estimating the time saved by

citizens due to the availability of new road or subway, rather than it being delayed 18 months. Economists have also made estimates of the costs of health care wait times in Canada. If a more rigorous benchmarking study showed that P3s reduce delays in infrastructure being available, and an attempt was made to quantify the cost of those delays to society, certain P3s may be even more valuable than IO currently estimates.

One of the key benefits typically cited for P3s is for the builder to consider the long-run maintenance costs into its construction decisions. If the builder is the one responsible for maintenance of an asset over the long term, they have a much greater incentive to consider the long-term quality of the asset. However, in a recent study of IO P3 projects, less than 50% had a maintenance component (see Chart 2). 51.4% of projects were only build-finance. Ontario could better harness more of the benefits of P3s if there were more contracts with maintenance as an aspect of the contract so as to better align construction quality considerations with the assets longer-term maintenance.

Another consideration that wasn’t addressed in detail in the AG’s report is how competitive the tendering process is. One of the best ways to ensure taxpayers get the best value for money is to ensure a competitive bidding process drives costs down, and leads to more innovation. A track record report commissioned by IO<sup>5</sup> stated that there was usually three (DBF and DBFM) or five (BF) pre-qualified and experienced project consortia bidding. Ontario’s P3 market is reasonably competitive, further ensuring that the taxpayer is getting the best deal possible of these projects.

Finally, AFPs do entail higher transaction costs. That is a valid concern and it is a reason why the model is typically only applied to the largest and most complex projects where these costs are a relatively small share of the total project cost, and well worth it given the potential risks at play.

While public attention focused on the seemingly higher cost of P3 projects in Ontario, framing a “for-or-against” debate on the business model. It is arguably time for Ontario to move past that dichotomy, and focus on how best to apply the AFP model. It is clear that private finance is an effective tool for bringing in more project discipline and transferring project risk to the party best able to manage it. The more pertinent questions are how to keep transaction costs low by standardizing processes, and reducing the cost of financing by only including as much private finance as is required to transfer construction and lifecycle risk. The higher costs of AFPs are really like buying an insurance policy; the key

question going forward is when should government buy this insurance, and if so, how much is necessary.

### Bottom line

As with any audit, there is always room for improvement. The Ontario AG's report on AFPs at IO raised many valid concerns about the management of processes, and there scope to further refine the VfM analysis, which IO is working on. However, a narrow focus on higher tangible costs of AFPs does a disservice to an innovation in government procurement that has allowed for a more transparent accounting of the full cost of a project in advance, and one that the AG acknowledges has a strong track record. There are many benefits that P3 model has brought in to the system, particularly when it comes to the benefits of a

project being completed on time. In fact, if these qualitative benefits were better quantified, either through comparison on delays to a public sector benchmark or measuring the benefits to taxpayers of an asset being available sooner, the value for money of P3s may be even larger than IO currently estimates. With Ontario set to spend \$130 billion on much-needed infrastructure over the next ten years, the stakes are high that the money is spent as efficiently as possible. Leveraging the expertise and project management discipline of the private sector through the use of P3s where appropriate, should continue to be a tool in the infrastructure procurement toolbox.

*Craig Alexander*  
*SVP & Chief Economist, 416-982-8064*

*Derek Burleton,*  
*Vice President and Deputy Chief Economist*  
*416 982-2514*

*Leslie Preston, Economist*  
*416 983-7053*

---

## ENDNOTES

1. Altus Group "Infrastructure Ontario AFP Track Record Report Oct 16th, 2014"
2. The Fraser Institute (May 2013) "Using Public-Private Partnerships to Improve Transportation Infrastructure in Canada".
3. Toronto Star, March 6, 2015. <http://www.thestar.com/news/queenspark/2015/03/06/spadina-subway-extension-400m-over-budget.html#>
4. Duffield et al (2008) "National PPP Forum – Benchmarking Study, Phase II Report on the performance of PPP projects in Australia when compared with a representative sample of traditionally procured infrastructure projects"
5. Altus Group "Infrastructure Ontario AFP Track Record Report Oct 16th, 2014"

This report is provided by TD Economics. It is for informational and educational purposes only as of the date of writing, and may not be appropriate for other purposes. The views and opinions expressed may change at any time based on market or other conditions and may not come to pass. This material is not intended to be relied upon as investment advice or recommendations, does not constitute a solicitation to buy or sell securities and should not be considered specific legal, investment or tax advice. The report does not provide material information about the business and affairs of TD Bank Group and the members of TD Economics are not spokespersons for TD Bank Group with respect to its business and affairs. The information contained in this report has been drawn from sources believed to be reliable, but is not guaranteed to be accurate or complete. This report contains economic analysis and views, including about future economic and financial markets performance. These are based on certain assumptions and other factors, and are subject to inherent risks and uncertainties. The actual outcome may be materially different. The Toronto-Dominion Bank and its affiliates and related entities that comprise the TD Bank Group are not liable for any errors or omissions in the information, analysis or views contained in this report, or for any loss or damage suffered.