

**Is there a Distinctive Canadian PPP Model?
Reflections on Twenty Years of Practice**

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Introduction

Across Canada, public-private partnerships (PPPs) have become increasingly institutionalized as the model of choice for delivering large-scale public infrastructure projects. Between 1990 and 2012, over 195 projects have been built, or are in the planning and delivery pipeline. The federal government and most provinces have now set up special purpose agencies charged with promoting, planning and delivering infrastructure public-private partnerships. And the Canadian PPP project pipeline bucked the international trend by remaining fairly active throughout the global financial crisis of the late 2000s, making Canada a highly attractive PPP marketplace for the largest global infrastructure firms and investors. Indeed, the Canadian approach to governing, structuring and delivering PPPs has been identified internationally as a potential model to be emulated, most notably in the United States where PPPs have been slower to take off. Additionally, the British Government pointed to Canada as one of the “examples that the UK should follow” when developing its “new approach to public private partnerships” (HM Treasury, 2012: 9)

With growing domestic and international interest in Canadian PPPs, it is now timely to reflect on the current state of practice in the country, and how this relates to the theoretical understandings of the merits of PPPs. More specifically, this paper questions whether there is a distinctly Canadian model of PPP governance, financing and project delivery that has emerged over the past two decades. An initial examination suggests that there are some particularities of Canadian PPPs that point to a novel government philosophy and approach to deal structuring and project delivery. PPPs in Canada do not always include a long-term facility operation and maintenance

concession: a common deal structure bundles project design, build and construction financing. Recent PPPs infrequently transfer significant demand risk to the private sector. Initial private sector investment is commonly repaid directly through government availability payments rather than user fee revenues, meaning that they do not bring in new long-term funding to deliver infrastructure. And government actors and politicians maintain a high level of control over project design, location, and approval decisions. These general parameters challenge theories about the optimal role of the private sector in PPPs, and raise questions about whether the common deals in Canada even meet the conventional definition of a PPP. The rationales and implications of these choices will be explored in this paper, providing insights into the effectiveness of PPPs within Canada, and the transferability of the Canadian PPP approach abroad.

Defining Infrastructure Public-Private Partnerships

In the most general terms, PPPs are guided by the belief that governments and firms working in meaningful collaboration will deliver projects that have better outcomes than any one party could achieve on their own (Huxham and Vangen, 2000; Bovaird, 2004). In practice within the infrastructure sector, PPPs have come to take on a narrower, more specific definition as a form of long-term contracting arrangement between the public and private or voluntary sectors (Hodge and Greve, 2010). Garvin and Bosso (2008, 163) provide a working definition of PPPs that will be used in this paper:

“A P3 is a long-term contractual arrangement between the public and private sectors where mutual benefits are sought and where ultimately (a) the private sector provides management and operating services and/or (b) puts private finance at risk.”

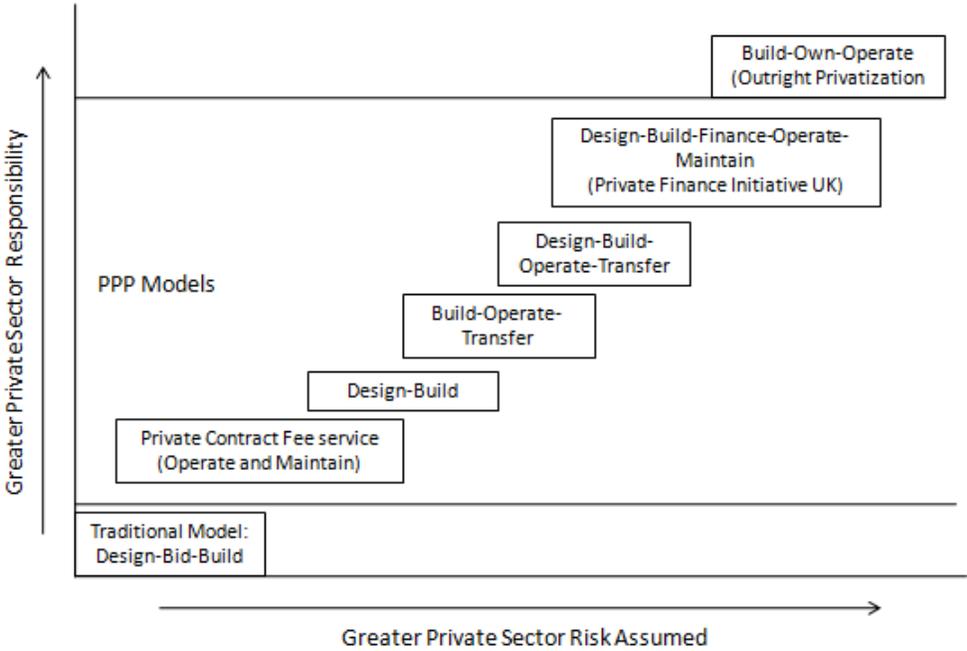
In contemporary infrastructure project delivery, partnership structures of all kinds are used, and range on a spectrum from greater public sector responsibility to greater private sector responsibility (Figure 1). In these models, the facility typically remains publicly owned and regulated. The private sector partner is offered a long-term bundled concession to undertake some combination of facility design, construction, financing, operations and maintenance. In return they are either granted user fee revenues or paid a pre-determined annual fee based on the facility being available and in a state of good repair, over a period that can last anywhere from 10 to 99 years. This bundled concession based model of PPP can either be applied to the delivery of new infrastructure, or the operations and maintenance of existing facilities such as the Chicago Skyway or the Indiana Toll Road.

The Drivers and Rationales for PPPs

The government motivations for delivering infrastructure projects through public-private partnerships have varied by jurisdiction and evolved over time. A first common motivation is the opportunity for cash strapped governments to tap into new private financing sources to meet the capital and operating costs of delivering high quality infrastructure. Globally, the Boston Consulting Group estimates that there is a \$1 trillion to \$1.5 trillion annual gap between necessary and actual investment in infrastructure (BCG, 2013). In response, state and local governments are looking to access private capital through PPPs as a way to close this

staggeringly large infrastructure investment gap. This interest in tapping into private finance for infrastructure has been supported by the rise of institutional investors such as pension funds, which are looking for long-term investment opportunities that provide stable, predictable returns.

Figure 1: Contemporary PPP Models



Concession style PPPs enable state and local governments to avoid the need for traditional public funding for infrastructure in cases where user fees or other external revenue streams can be pledged to repay initial private sector investments. Spain, Australia, Britain and other countries have widely applied user fees in PPP deals in order to offset the need for direct public investment. PPPs may also function as a massive government ‘credit card’, providing up-front private financing for infrastructure that is repaid by government in installments over the life of the concession. Importantly, the use of PPPs as ‘credit card’ is a form of *private financing* rather

than *private funding*, and the state sponsor is still responsible for repaying the full cost of the investment unless user fees are levied (Hodge and Greve, 2010).

A second common rationale for using PPPs has been to shift the accounting of major public infrastructure investments off of the public balance sheet, enabling politicians to deliver high quality public infrastructure without taking the unpopular decision to raise public debt levels or taxes. This motivation has been especially prevalent in the European Union, where the Stability and Growth Pact requires member countries to carry minimal public deficits and debt (Boardman and Vining, 2012). According to Eurostat, the European statistical agency, infrastructure projects can only be considered off the balance sheet if substantial construction *and* availability or demand risks are transferred to a private sector entity, without government guarantees. This may encourage government planners to design PPP project structures simply to achieve off balance sheet accounting status, even if this is realized by paying higher project costs (EPEC, 2012).

A third rationale has been to use PPPs as a way to restructure the provision of public services. The marketization of public infrastructure provision involves the restructuring of a variety of government processes to introduce market forces through direct competition, performance incentives, and new relationships with service users (Whitfield 2006, 2010). Indeed in the infrastructure sector, Yescombe (2007, 24) argues that “a PPP programme can serve as a catalyst for public-sector reform in a number of different ways.” Such reforms typically fall along New Public Management lines (Coghill and Woodward, 2005), and include some combination of: the introduction of competitive contracting; the participation of private sector actors in policy formulation and project planning through staff secondments and outsourcing arrangements; the

expanded use of privately raised capital to finance large infrastructure investments; the reorganization of labour contracts and relationships to increase flexibility and implement performance based contracts; the formation of independent regulators to oversee industry competitiveness and monitor service quality and pricing; the transfer of accountability over infrastructure planning and provision to arm's-length agencies and commissions that can function more like private businesses than government; and the treatment of service users as customers which enables the introduction of more aggressive user pay models to recover costs.

The restructuring of the state associated with infrastructure marketization has two key implications. First, it involves a decentralization of decision making control away from elected officials and their subordinate bureaucracies, and into the hands of new arm's-length agencies, consultants, and the private investors that increasingly finance large-scale public infrastructure projects (Shaoul et al. 2007). Second, it introduces competition throughout the project delivery process, although this typically includes competition for the market rather than competition in the market due to the natural monopolistic characteristics of many infrastructure services. For economists, this insertion of competition and market forces into infrastructure selection is meant to reduce political influence and increase the efficiency of the chosen projects. "PPPs should help filter out wasteful projects" as Engles, Fischer and Galetovic (2011, 15) put it.

Finally, in recent years, achieving value for money has emerged as the primary government rationale for delivering infrastructure projects through PPPs (Siemiatycki and Farooqi, 2012). According to the UK Treasury (2006, p.7), "Value for money is defined as the optimum combination of whole-of-life costs and quality (or fitness for purpose) of the good or service to

meet the user's requirement." Importantly, value for money does not refer to the lowest cost project. Due to the higher cost of financing an asset with private capital, increased transaction costs, the base costs of PPP projects are typically higher than for a comparable public sector alternative (Siemiatycki and Farooqi, 2012; Shaoul et al., 2007).

Rather at its core, transferring project risks to the partner best able to manage them drives the value for money of infrastructure PPPs. Historically, infrastructure projects have been plagued by major cost overruns and construction delays; and once operational, demand volume has often failed to meet initial forecasts, leading to lower than expected revenues (Flyvbjerg et al., 2003). Against this backdrop, value for money can be achieved if financial risks associated with large cost overruns and demand shortfalls are transferred from the public to the private sector partner. By putting private risk capital at stake through contractual arrangements in the PPP, the private sector partner is incentivized to identify and manage project risks, by facing the financial burden when poor project outcomes occur and conversely profiting when expectations are met or exceeded (Grimsey and Lewis, 2004).

Key Characteristics of Canadian PPPs:

The theoretical underpinnings and global rationales for delivering infrastructure through PPPs provide the backdrop for understanding contemporary project practice in Canada. Identifying a common Canadian PPP model or state of practice is complicated by the fact that infrastructure provision is largely the jurisdiction of the provincial and municipal governments rather than the federal government, and each province has followed their own unique trajectory. Moreover, there has been considerable variation across the country in terms of the level of activity, PPP models used, and the legislative frameworks and institutions developed to support the delivery of

PPPs. Taken together, there are in practice multiple rationales and approaches to PPPs in the different Canadian provinces.

Importantly, PPP development in Canada can be divided into two waves. The first wave of PPPs were planned and delivered in the 1990s and the early 2000s, and includes projects such as the Highway 407 long-term lease in the Greater Toronto Area, the development of the Brampton and Royal Ottawa Hospitals in Ontario, the Confederation Bridge linking Prince Edward Island and New Brunswick, a toll road connecting Fredericton and Moncton in New Brunswick, and the development of schools in Nova Scotia. These projects were planned directly by government departments or agencies and motivated by similar rationales to those articulated internationally: where possible, they sought to augment (though not eliminate) public funding for infrastructure by raising new money through user fees or large upfront lease payments, and transfer supply, availability and demand risk to the private sector partner. Politically, they were aligned with an ideological perspective that greater competition and private sector involvement in the provision of public services would lead to lower costs and greater efficiency. In some cases such as the Confederation Bridge, governments also sought to realize off-balance sheet accounting for their public investments in infrastructure (Conference Board of Canada, 2010).

Overall, the experiences of these projects were decidedly mixed. Each project was built and some such as Highway 407 have been very profitable for their investors. However, these projects have faced criticisms that: the use of the PPP model was politically motivated as a means of privatizing public infrastructure and weakening organized labour; that private financing costs

were considerably higher than traditional public financing; that rigorous assessments were not carried out to evaluate whether the PPP was the optimal procurement model; that the procurement process lacked suitable transparency; that the government lacked the expertise to manage such complex concessions and thus may not maximize the public benefit of the PPP approach; that the implementation of user fees on road facilities that are commonly free in Canada was unfair, and that the long-term concession agreements led to the loss of public control over important public facilities. These projects have also been particularly prone to political risks, as public opposition and changes in governments have led to legal challenges of tolling arrangements, contract renegotiations to remove user fees, and some contracts being terminated and services brought back in house.

In response to these experiences, since the mid 2000s, a second wave of PPPs has been developed in Canada. During this second wave of projects, Canada's provincial governments have been the leading users of PPPs to deliver hospitals and healthcare facilities, roads and bridges, and justice facilities. A smaller number of provincial and municipal public transit, road, water and waste treatment, education and cultural facilities have also used PPP approaches. Nationally, the most number of PPPs have been delivered in Ontario, British Columbia, Alberta and Quebec in that order; and each of these provinces has developed special purpose PPP procurement agencies or government departments designed to support the delivery of projects through such models. Canada's other six provinces and three territories have been more *ad hoc* in their rationales and application of PPPs, although they too are now becoming more systematic in their approach.

Below I outline the key characteristics of the PPP rationales, partnership models, and institutions that comprise this second wave of PPPs in Canada, and explain how they compare with international experience. This analysis is based on a wide range of information sources. Over the past four years, I have reviewed dozens of government and corporate documents outlining the policies and rationales for PPPs in the different jurisdictions of Canada. My graduate students and I have conducted over 40 key informant interviews with leading practitioners involved in Canadian PPP projects, including provincial project planners, municipal officials, politicians, private sector consultants, financiers, pension fund managers, ratings agency staff, union leaders, and civic activists. I have been a presenter or panelist with Canadian PPP leaders at a dozen open public forums on the applications of this infrastructure delivery approach, and attended the Canadian PPP industry's annual national conference in Toronto three times. And I have been invited by numerous government departments and agencies to take part in private discussions about the merits and appropriate structures of PPPs for their desired projects. Taken together, this body of evidence provides insight into the Canadian PPP industry, as constructed and articulated by those involved in it. As I will illustrate, the rationales, partnership models, and practices of contemporary PPPs in Canada differ in some significant ways from the global application of this procurement model.

Canadian PPPs are about delivering Value for Money

In Canada like elsewhere in the world, achieving value for money has been identified as the primary rationale for delivering infrastructure through PPPs by their government, private sector and political promoters. In its simplest form, Canadian practitioners of PPPs have defined value for money as a measure of the extent to which cost savings are achieved when delivering a public infrastructure project through a PPP relative to a traditional government-led procurement approach. Proposed drivers of VfM in Canadian PPPs include: enhanced upfront project planning; incentive based bundled contracts that encourage on time and on budget delivery, as well as innovative facility designs that improve the user experience and save costs; the use of concessions that provide long-term cost certainty and specify the management of the asset over its complete lifecycle; and the allocation of project risks to the partner that is best able to manage them, such that governments are protected in case of large cost overruns, revenue shortfalls, or facilities that are unavailable for their users (Infrastructure Canada, 2012). The Mayor of Winnipeg provides an explanation for why he supports PPPs, which is similar to the rationales put forward across the country:

"Public-private partnerships promise better value, timeliness and accountability for public infrastructure projects. That's exactly what the City of Winnipeg experienced with our 3.5 kilometre Chief Peguis Trail Extension. The project, including an underpass, multi-use pathway and pedestrian overpass, was completed one year ahead of schedule thanks, in large part, to this innovative approach."

The emphasis on value for money as the driving rationale for PPPs in Canada is the result of both technocratic and political factors, a response to the criticisms of the first wave of PPPs. Canadian provinces have set up the institutional structures and procurement procedures to place the realization of achieving value for money at the centre of the approach to delivering PPPs. Canadian governments across the country have established special purpose PPP procurement

agencies or departments that are designed to bring a level of rigour and in-house procurement expertise that can level the playing field when governments negotiate with sophisticated and experienced concessionaires. These agencies, which now exist in six of the ten provinces, are staffed with personnel that have public and private sector expertise in project finance, law, business management, accounting, and project management. In collaboration with hired consultants and advisors, the special purpose PPP agencies have developed standardized procurement processes, assessment methods such as public sector comparators, risk matrices and value for money evaluations, and legal contracts that have increased the speed and lowered the transaction cost of using PPPs. Government PPP planners see such measures as bringing a level of rigour and detail to upfront project planning that is not always realized in traditional procurement, and they have built industry confidence in Canadian governments as a viable partner, thereby attracting the largest global firms to the marketplace. The PPP agencies have also developed web sites where they post extensive project documentation such as technical design studies, concession agreements, and summary value for money reports, providing a level of data reporting and transparency that has not typically been followed on traditionally procured projects (see Siemiatycki, 2007).

At the same time, the emphasis on using PPPs to deliver value for money has been designed to depoliticize this approach to infrastructure procurement. For the political architects of second wave PPPs in Canada, depoliticizing PPPs was a crucial aspect of their project. In the spring of 2012, I interviewed David Caplan, Ontario's first Minister of Infrastructure, who was responsible for developing and rolling out the province's approach to second wave PPPs. In our interview, Caplan explained how if PPPs were going to be successful in Ontario, political considerations

made it necessary to change the narrative on PPPs to making them about value for money and protecting the public interest.

People's perceptions were clouded and they equated this type of method (PPPs) to build and finance infrastructure with privatization and so we found that there was really no public appetite for privatization and what we had to do was to change the lexicon - change the language and that is why we came up with and looked for the most boring term that we could possibly find - what we called AFP, alternative finance and procurement. But we use the same principle basis - although a little bit different. We put up front that first and foremost public interest is paramount - things like that. Value for money must be demonstrated. Process must be fair. All of these kind of thing just as extras - safeguards - that this is being done from a particular way and a particular perspective and you know what you are getting involved in.

Caplan also explains how political considerations shaped the institutional design and PPP models selected in Ontario.

We knew that in particular, the ideological left would put significant and fundamental concerns and that we had to address them because many of them are legitimate. And so we really wanted to prepare for what we knew was going to come our way and the very first step was the question of privatization. So, it was important whenever we heard privatization we would say, public-ownership. We could counter-balance that and at least have a conversation with the public about that. The industry, also, wanted us to be more aggressive to undertake a whole lot of projects and we told them that our approach, at first, was going to be more modest. That we would want to use those as learning opportunities and we would want to grow as we became more comfortable with building in additional elements.

To be certain, the experience that Caplan articulates from Ontario is only nationally representative up to a point, as each province has its own specific histories and politics associated with implementing second wave PPPs. Nevertheless, the underlying conditions are strikingly similar. PPPs have faced similar challenges across the country, most notably union opposition and a healthy dose of public skepticism towards privatizations that could reduce

public ownership or government oversight and long-term control. In response, the technocratic and political answer to the challenges with first wave PPPs has been in part to undertake what Hodge and Greve (2010) refer to as a ‘language game’, an effort to rebrand PPPs to identify and promote value for money as the driving rationale for delivering infrastructure through PPPs.

At the same time, however, this national emphasis on value for money as the primary motivation for using PPPs in Canada has also involved taking significant steps to mitigate against the critiques of PPPs as a form of privatization, and has shaped the local practice and partnership models applied in a number of important ways. In particular, PPP practitioners in Canada have been especially cognizant to find a balance between transferring project responsibilities and risks to the private sector on the one hand, and on the other maintaining government control and oversight over infrastructure service provision.

PPPs as a Procurement Strategy

PPPs in Canada have been conceptualized and applied rather narrowly as a procurement strategy, rather than as part of a broader program to recast the roll of government in the planning and provision of public services. This has two important manifestations, both of which serve to maintain a high level of public control and oversight over infrastructure delivered through PPPs. First, PPPs in Canada typically follow the same prioritization and selection processes as traditionally built projects. To this end, in most provinces, perspective provincial infrastructure

projects are analyzed and prioritized by civil servants within the line government ministries and approved by the relevant minister and the Treasury Board. The role of the provincial special purpose PPP agencies is to provide analysis of whether specific projects are viable as PPPs (which is often required by legislation if the project is above a certain threshold value), and run the PPP procurement and delivery process once the project is approved. As Infrastructure Ontario's Executive Vice President for Major Projects makes clear, "we don't make the decision as to which projects need to be built. We do not make the decision as to where the project is to be built. That is part of the political decision making process. The politicians decide" (Personal Interview, 2012).

Second, the PPP models that have been applied in Canada tend to focus specifically on facility design, construction, financing and maintenance of the hard physical asset, rather than the private operation of the core public service itself. This is especially the case for infrastructure involving buildings where the end user comes into direct contact with the service provider, rather than transportation, energy or waste and water facilities. To this end, within the PPP hospitals that have been built, all medical and nursing services are publicly programed and funded in the same way as a traditionally delivered hospital; likewise the guards in most PPP prisons are trained, deployed and funded through the public correction services; and the teachers and curriculum offered in PPP schools are part of the public education system. Where operations of public buildings extend beyond the maintenance of the physical plant, they typically involve non-core operational services such as food services, parking, cleaning and laundry. There is also limited opportunity for the private sector partner to make decisions on service levels that are outside of the contractual terms agreed at the time that the concession is signed. In this sense, government

maintains tight control over the facility, both in terms of its programming and the quality of service provided to the public.

The application of PPPs in Canada thus stands in sharp contrast to the experience of other countries such as Spain, where PPPs have been used to more aggressively involve the private sector and reform the way that public services are planned and delivered. In Madrid, for instance, between 2003 and 2012 the regional government has implemented a PPP program to significantly overhaul the regional school system. Private concessions have been granted for almost 60 schools serving tens of thousands of students, where the concessionaires are responsible for deciding how big and what types of facilities each new school should include, financing the building construction, hiring teachers, student recruitment, curriculum development, and levying student fees. The Canadian emphasis on PPPs as a procurement strategy rather than a more fundamental transformation of the provision of public services has been especially important in blunting criticisms about PPPs as a form of privatization.

Not Major Source of New Infrastructure Money

Second wave Canadian PPPs have not been widely seen or used as a mechanism to raise new sources of funding for critical public infrastructure, or reduce the need for public investment in such facilities. In fact, many large Canadian PPPs receive substantial upfront public investment, in addition to the private financing that is invested in the initial capital costs of the project. For

instance, only around one third of the \$2.1 billion Canada Line light rail project in Vancouver was privately financed, with different levels of government contributing \$1.4 billion in construction costs. In Quebec, the provincial government contributed around \$1 billion towards the capital costs of the McGill University Health Centre and the L'Universite de Montreal hospital PPPs (Boardman and Vining, 2010). Even in sectors such as highways that have the potential to be self-funding through tolls, upfront public investment is common. For example, in Alberta, the Anthony Henday Drive ring road PPP in Edmonton received \$925 million from the provincial government and another \$37 million from the Federal Government of Canada towards the upfront construction costs. And in Quebec, both the A25 and A30 PPPs received relatively small but not insignificant public subsidies to cover a portion of their capital costs.

In this context, PPPs have been primarily used to privately finance some of the upfront costs of public infrastructure privately, with the initial capital investment repaid directly through government availability payments. User fees have not been a common feature of second wave Canadian PPPs. Some of the sectors where PPPs have been most commonly applied such as health care and justice do not lend themselves to the application of user fees. Concerns about political acceptability have also limited the application of tolls on transportation projects, where they are more widely used internationally. Of the 12 Canadian highways and bridge PPP projects that have been approved since 2003 and are now operational across the country, only four generate new revenue from users through tolls or other fees.

The emphasis of Canadian PPP planners on realizing value for money has guided the amount of private capital invested in PPPs, and the structure of the PPP arrangements themselves.

Government project sponsors have sought to structure PPP deals so that sufficient private debt and equity is included to ensure that the concessionaire has ‘skin in the game’ and an incentive to manage project risks assigned to them, rather than more broadly as a way of replacing the need for public infrastructure investment. To this end, given the high cost of private borrowing, with interest rate spreads ranging from 150 to 400 basis points above those available to Canadian governments, public sector sponsors of PPPs have combined public and private financing in order to make the projects more affordable, or to “buy down” the rates of future user fees. As explained in a report documenting the merits of the financial structure to deliver Winnipeg’s

Chief Peguis Trail Extension PPP:

The partial public funding provided by the City is intended to leverage the City’s lower borrowing rate, while still requiring the private sector to provide the majority of financing for the Project thereby maintaining the risk transfer benefits associated with private financing. (Deloitte & Touche, 2011: 20)

Beyond conventional long-term PPP concessions, Canadian infrastructure planners have also widely applied shorter-term design-build-finance type PPP arrangements where the concessionaire’s initial investment is repaid entirely by the government sponsor following the substantial completion of construction, and the facility is then operated and maintained publicly. Such partnerships are designed to specifically incentivize on-time and on budget construction on facilities where there is a need to closely integrate the new and existing infrastructure, but such models only temporarily delay the timing of public funding. Finally, during the financial crisis of the late 2000s, when the global credit markets seized up and the cost of private borrowing rose

dramatically, Canadian governments stepped in and converted numerous PPPs in the delivery pipeline to more traditional publicly financed design-build contracts when their private sector sponsors could not raise sufficient funds. Taken together, the range of PPP models applied reflects more of a pragmatic than ideological perspective on the place of private financing in infrastructure procurement.

While on an aggregate level PPPs have not been widely applied as a way of raising new money for infrastructure, there are different practices between the large provinces that have considerable fiscal capacity to borrow money and have become sophisticated users of PPPs, and those jurisdictions that are more cash strapped and examine the possibilities of PPPs on an *ad hoc* basis. In particular, smaller provinces and territories as well as municipalities that often have borrowing limits or restrictions established by their senior government overseers have been particularly attracted to using PPPs as a way to raise new money for major infrastructure projects. In the Northwest Territories, for instance, the territorial government had no prior experience with PPPs, but was motivated to examine a PPP to deliver the proposed \$55 million Deh Cho Bridge across the Mackenzie River by the fact that the project was considered beyond their fiscal capacity. Consequently a PPP toll bridge was seen as the only way to deliver the project without requiring public borrowing. Ironically, this project ran into severe financial distress when project construction costs more than tripled and deficiencies in the facility design were uncovered. The territorial government ultimately assumed the project debt to keep construction on track (Auditor General of Canada, 2011).

Interestingly, however, it is the prospect of attracting federal government funds that is becoming one of the key motivations for municipalities and small provinces and territories to deliver infrastructure through PPPs. In 2008, the federal government created the \$1.2 billion P3 Canada Fund, “designed to incent consideration of P3s in public infrastructure procurements, in order to achieve value for taxpayers and other public benefits.” In a context where the federal government has no formal statutory role in funding local infrastructure, many municipalities have come to see the use of PPPs as the ‘only game in town’ if they are to attract new federal government funding for their critical infrastructure projects, a view that the federal government has not disavowed. As the federal Member of Parliament for St. John, New Brunswick explained in 2013, the city’s proposal for a critical water treatment project would receive no federal money unless it was delivered through a PPP. "In no uncertain terms we were told two-and-a-half years ago, the only source of funding, the only opportunity to make this happen is through P3 Canada" (Canadian Broadcasting Corporation, 2013).

On Balance Sheet Financing

Following on the experience with the first wave of PPPs in Canada, PPP practitioners and politicians have come to the conclusion that off-balance sheet financing is not an appropriate rationale for delivering infrastructure through a PPP. Canadian provincial governments do not face legislated debt limits like their European counterparts, and are therefore not under the same structural pressure to limit public debt. Moreover, off-balance sheet financing does not add economic value to the PPP transaction. It may in fact add transaction costs to structure the deal

or lead to the inappropriate allocation of project risks to achieve a desired accounting treatment. Off-balance sheet accounting of PPPs also limits public transparency and accountability over a major category of public investment (Boardman and Vining, 2012).

To this end, the practice of treating PPPs off of the public balance sheet has been largely abandoned during the second wave of PPPs in Canada. As the Canadian Council for Public-Private Partnerships, the industry's national trade organization explains in a report, "government officials and business people agree with accountants and auditors that accounting should not drive PPP transactions. Such transactions should be driven by the commercial merits of the deal" (CCPPP, 2008: 2). Even if politicians or project planners were inclined to use PPPs as a strategy to move investments in public infrastructure off of government balance sheets, it likely would not be effective in influencing their government's credit rating or obscuring public debt levels. Our interviews with two separate private bond ratings agencies in Canada revealed that each scrutinize and include government payments towards infrastructure PPPs as part of their assessments when evaluating government debt obligations.

Limited Demand Risk Transferred

To date, Canadian PPPs have been primarily structured to focus on transferring construction and availability risk to the private sector, while only very limited usage or demand risk has been transferred to the private sector partner. In most long-term concession style PPPs in Canada, the

private concessionaire recoups their initial investment through availability payments paid by the public sector sponsor at scheduled intervals over the life of the concession period, provided performance targets are met. In the case of the Canada Line, for instance, only 10% of the concessionaire's scheduled government reimbursement depends on ridership targets being met, while factors related to facility availability and service quality determines whether the remainder of the payment is made. Many other Canadian PPP concession agreements have no provision to dock the concessionaire's payments if facility demand is below forecasted levels. This has led Boardman and Vining (2010, 381) to argue "P3s appear to have generally been low-risk for the private sector equity investors." Yet is this altogether negative?

The downside of transferring limited demand risk to the private sector, of course, is that the government partner is exposed to significant financial risk when usage expectations are not met. In the case of the Golden Ears toll bridge in greater Vancouver, for instance, traffic volumes and toll revenues have not met predevelopment forecasts during the initial years of the concession. Because the public sector sponsor assumed the demand risk, they have been required to subsidize the cost of their availability payments to the concessionaire out of general revenues, reducing money available for other priorities. Additionally, some analysts like Flyvbjerg et al. (2003) propose that requiring infrastructure projects to attract private sector investors with their own risk capital at stake from user fees provides a check on the potential for governments to select politically motivated projects that may be financially unviable. Yet the use of guaranteed availability payments eliminates this private sector function.

However, by not attempting to transfer significant levels of demand risk to the private sector partner, Canadian PPP planners have avoided a common source of some of the most acute challenges that PPP projects have faced globally. As a World Bank study on PPPs bluntly reports, “allocating all demand risk to private operators has a poor track record” (Menzies and Mandri-Perrott, 2010: 2). As Siemiatycki and Freidman (2012) show based on international experience, contractual clauses designed to protect the long-term revenues of the private sector investors have resulted in governments losing control over fee setting and system wide planning, functions that are key to protecting the public benefit of infrastructure projects. Non-competition agreements are a feature of some road and transit PPPs, restricting where governments can build future infrastructure facilities. PPP concessions have sometimes included contractual terms that lock in long-term decisions that may not be acceptable to future governments, and result in conflict between the partners and in some cases legal actions. And finally, demand is often dictated by factors beyond the control of the concessionaire of a specific piece of infrastructure. When usage levels and revenues have not met expectations, it has challenged the financial viability of the concessionaire, and contributed to demands by the private sector partner to renegotiate the terms of the PPP relationship or declare bankruptcy and threaten the provision of important public services.

The decision by Canadian public sector PPP sponsors to retain demand risk on most second wave projects has enabled them to maintain a high level of control over scheduling, user fee setting where applicable, and regional planning and facility integration into the broader network, conditions that are critical to the public acceptability of PPPs. Canadian project planners have also avoided one of the key sources of instability and conflict in concession style PPP

arrangements. While it is early in the concession period for most second wave PPP projects in Canada, none that reached the operational stage have faced a significant threat of financial failure or termination due to poor contractor performance. This stands in contrast to the numerous projects in other large and sophisticated PPP marketplaces such as Britain, Australia, Spain and Portugal, where unmet demand expectations on PPP projects have contributed to bankruptcies, uncertainty about the ongoing provision of important public facilities, and in some cases public bailouts (Siemiatycki, 2010).

Outstanding Issues

Second wave PPPs in Canada represent a significant evolution in the ideologies, rationales and partnership models from those used during the first wave of PPPs, and the initial project outcomes show promise. Many Canadian governments, such as those in the provinces of Ontario and British Columbia, boast that the PPP model is revolutionizing infrastructure project delivery, with every major second wave PPP built on time and on budget. As the head of the British Columbia agency responsible for delivering PPPs proclaimed,

“All British Columbia public private partnerships (PPPs) to date have been delivered on time and on budget. Performance-based, fixed-price contracts ensure that cost and schedule overruns don’t happen and that project risks are transferred to the private partner. Taxpayers don’t pay for a design that doesn’t work or for a service that isn’t provided to the contractually bound standards set by government.” (Blain, 2009: 1)

Nevertheless, there remain some critical outstanding issues with the way that PPPs are being practiced in Canada, which challenge their value, public benefit, and in some cases the viability of this infrastructure procurement model. First among them is whether Canadian PPPs actually deliver value for money, or whether they pay too high a price to achieve cost and availability certainty. A review of the official *ex ante* value for money studies commissioned by governments across Canada show that PPPs are an expensive way of delivering infrastructure. In Ontario, *ex ante* value for money reports produced for the province's PPP agency show that the base construction, financing and operation costs and transaction costs of delivering 28 infrastructure projects was estimated at \$7.2 billion through PPPs compared with \$5.5 billion if traditional procurement was used, a difference of \$1.7 billion or 30% (see Siemiatycki and Farooqi, 2012). In the case of Winnipeg's Chief Peguis trail, the official value for money report showed that the project would have base, financing, administrative and transaction costs of \$131.4 million using a PPP and \$111.7 million if delivered through traditional procurement, a difference of \$19.7 million or 18% (Deloitte and Touche, 2011). And in the case of Vancouver's Canada Line rapid transit system, the final value for money report showed that the estimated gross cost including base construction and operation, administration and financing of the project was \$2.2 billion for the PPP and \$1.92 billion for a comparable project procured traditionally, a difference of \$141 million, or 15% (CLRT, 2006).

In these studies of value for money, it is only after calculations of estimated risk retained by the government associated with each procurement model is considered that PPPs are assessed as providing better value than traditional procurement. To be certain, major cost overruns and facilities that do not function as expected are challenges that have commonly plagued

infrastructure mega-projects (Flyvberg et al., 2003). Yet the ‘risk premiums’ assigned to the traditional procurement option when Canadian governments carry out *ex ante* value for money assessments have varied and sometimes been very high, upwards of 50% of the base construction costs in Ontario and Winnipeg in some cases, with no publicly available data to demonstrate whether such large premiums are empirically warranted (Siemiatycki and Farooqi, 2012). In this context of empirical uncertainty, Boardman and Vining (2012: 125) propose that a key form of value provided by PPPs is in fact “political benefits to governments, from attempting to reduce political risk that can arise from project risk even when this is more costly.”

A second common concern with contemporary Canadian PPPs relates to the meaningfulness of the stakeholder engagement in the project delivery process. To date, the Canadian special purpose PPP procurement agencies have largely followed what Edelenbos and Teisman (2008: 618) refer to as a “project management” approach to infrastructure procurement, which is highly outcome oriented and focused on design efficiency and risk management. However, the result has sometimes been PPP planning processes that do not suitably consult with or create enough buy in from the various stakeholders involved. In some cases, tensions have arisen between the special purpose PPP agency running the project procurement process and the local municipality or agency responsible for operating and integrating the new infrastructure into the wider landscape. Another source of tension has been the invoking of confidentiality of commercially sensitive information during the PPP tendering process, which in some cases has made it difficult for community stakeholders to scrutinize the impacts that projects will have while they are being planned, leading to subsequent public backlashes and legal challenges (Siemiatycki, 2007).

Third, recent PPPs in Canada are not immune to procurement, contract management problems and even outright project failures, regardless of the financing structures followed and incentives and penalties built into the PPP contract. In Quebec, the provincial auditor general conducted a study into the procurement of a billion dollar PPP to modernize McGill University's aging health centre. The study criticized the province's PPP agency for carrying out a value for money assessment that was methodologically flawed and did not support the conclusion that a PPP was more advantageous than conventional project delivery. Nevertheless, the Quebec government chose to proceed with the modernization as a PPP. Once under construction, police uncovered evidence of an alleged multi-million dollar corruption scheme involving senior executives with the selected PPP concessionaire and the health centre's CEO, with charges having been laid in the case. And in the Northwest Territories where the Deh Cho Bridge PPP was bought out by the government mid way through construction, a report by the Auditor General of Canada found that the territorial government lacked the necessary skills to manage cost, scheduling and facility design risks, resulting in a deal structure where all project risk effectively resided with the government. These experiences highlight that alongside the incentives and penalties ideally built into the PPP model, project success is dependent on the same factors that impact the outcomes of traditionally procured projects: the skill, experience, integrity and probity of the public and private sector partners involved in the project.

A fourth critique of PPPs is that the procurement process followed is not conducive to achieving architectural or design excellence, which is critical to ensuring the public benefit of large infrastructure projects that will be a part of communities for generations (Colussi and Grdadolnik, 2007). The PPP process, with its value focused client and large multi-disciplinary

concession teams, often includes extensive value engineering exercises that can reduce the creativity and quality of design where it minimizes cost. More importantly, private sector concessionaires on PPPs are especially risk averse with their facility designs given that they are responsible for construction and availability risk. As such while PPP projects have been designed by some of Canada's leading architects, to date no second generation PPP project procured by a Canadian special purpose PPP agency has been awarded the country's top commendation for architectural quality, the Governor General's Medal.

Finally, despite efforts to rebrand and reform PPPs to address past criticisms, PPPs remain a politically contentious issue in Canada, and a political consensus about their merits is far from assured. Canada's large public sector unions such as the Canadian Union of Public Sector Employees and the Ontario Public Sector Employees Union, continue to be vocal and vociferous critics of PPPs, conflating them with privatization and arguing that they worsen conditions for service workers. The country's centre-left political party at the national and provincial levels, the New Democratic Party, opposes PPPs on the grounds that they are more costly than traditional procurement while favouring well capitalized multinational concessionaires over smaller local firms in contract selection. And community opposition still has the potential to delay project approvals or halt projects entirely that are particularly unpopular. In 2011, for example, residents of Abbotsford, British Columbia voted in a referendum to reject a fully funded PPP water treatment plant that was slated for construction in their community, amidst concerns that the project would lead to the privatization and loss of control of their public water resource. This was all the more surprising since Abbotsford is a constituency that consistently votes for conservative politicians, and there is not a strong local union presence or anti-privatization

activist base. While PPPs have grown in popularity with Canadian governments over the past decade, they face pockets of resistance that can mobilize broader community opposition if a PPP deal as structured appears to put the public interest in jeopardy.

Conclusions

Over the past decade during Canada's second wave of PPPs, the country has developed a distinctive set of PPP institutions, models and practices. Nearly all private capital invested in PPPs is repaid through availability payments and few deals include the transferring of demand or revenue risks. Nor have PPPs been widely used to raise substantial new funding for infrastructure, transform government decision-making or public service delivery, or move the costs of infrastructure funding off of the public balance sheet. Based on the analysis provided above, it would be fair (if provocative) to ask whether the majority of projects being carried out in Canada are PPPs at all, when using the common international definitions? Canadian PPPs are primarily structured as incentive based contracts designed to transfer construction cost and delivery time risk to the private sector partner. Most do involve some amount of up front private sector investment in the project. Penalties for lack of availability of the hard infrastructure are common aspects of the long-term concession agreements, but little demand risk is transferred to the private sector. In sum, Canadian projects do meet the definition of a PPP, but most would be at the low end of the spectrum in terms of private sector responsibility within the partnership.

Indeed, if the second wave of Canadian PPPs can be deemed successful, it is because of the conservative partnership models and risk transfer arrangements that have for the most part been

applied. Canadian PPPs have focused on identifying and leveraging the relative strengths of each partner, which in this case has meant maintaining a strong roll for the public sector in owning the asset, designing project specifications, and ensuring public control related to key features of their long-term operations. These parameters are a result of both the application of the technocratic expertise housed in the special purpose agencies, and the context of public skepticism towards PPPs that has made it politically challenging to implement partnerships that more aggressively transfer responsibility to the private sector.

To be certain, a critical outstanding question remains whether Canadian PPPs are too expensive, and more specifically whether too high a price is being paid to transfer what is effectively construction and availability risk to the private sector. An important area for future study is whether lower cost alternative approaches to risk management rather than risk transfer exist, which do not involve the high cost of involving significant private sector financing. One area for exploration is whether the current special purpose agencies that are tasked with procuring only PPPs could have their mandates broadened so that their extensive staff expertise could be applied to the delivery of all large infrastructure projects, whether using traditional or PPP models.

Nevertheless, the overriding strength of the recent Canadian PPP approach is that the partnership models being designed are more like traditional procurements than outright privatizations, and have been applied in most provinces by skilled procurement professionals within the special purpose PPP agencies. As a result, Canadian PPPs have largely avoided the frequent contract renegotiations, high profile conflicts between the partners, and even project bankruptcy or government bailouts that have more frequently plagued projects in other countries that are

experienced users of PPPs. The key lesson learned from the Canadian experience with second wave PPPs is that they do not have to be a radical transformation from traditional procurement approaches in order to be successful.

References

- Airoldi, M., Chua, J., Gerbert, P. Justus, J and Rilo, R. (2013). *Meeting the Infrastructure Challenge with Public-Private Partnerships*. Retrieved June 7, 2013, from https://www.bcgperspectives.com/content/articles/public_sector_transportation_travel_tourism_meeting_the_infrastructure_challenge_with_public_private_partnerships/
- Auditor General of Canada. (2011). *2011 March Report of the Auditor General of Canada: Northwest Territories Deh Cho Bridge Project—Department of Transportation*. Retrieved June 7, 2013, from http://www.oag-bvg.gc.ca/internet/English/nwt_201103_e_34999.html
- Auditor General of Quebec. (2010). *Report of the Auditor General of Quebec to the National Assembly 2010-2012. Special report dealing with the watch over the projects to modernize Montreal's University Hospitals*. Retrieved June 7, 2013, from http://www.vgq.gouv.qc.ca/en/en_publications/en_rapport-annuel/en_fichiers/en_rapport2010-2011-chu.pdf
- Blain, L. (2009), PPPs Provide Benefits to BC, *Partnerships BC*. Retrieved January 27, 2012, from <http://www.partnershipsbcc.ca/files/documents/20090407BCWideOP.pdf>
- Boardman, A.E. and Vining, A.R. (2012). The Political Economy of Public-Private Partnerships and Analysis of their Social Value. *Annals of Public and Cooperative Economics*. 88(2), 117-141.
- Boardman, A.E. and Vining, A.R. (2010). P3s in North America: renting the money (in Canada), selling the roads (in the USA). In *International Handbook on Public-Private Partnerships*. Hodge, G.A., Greve, C. and Boardman, A.E. (eds). Cheltenham: Edward Elgar.
- Bovaird, T. (2004). Public-Private Partnerships: from Contested Concepts to Prevalent Practice, *International Review of Administrative Sciences*, **70**, 199-215.
- Canadian Broadcasting Corporation. (2012). Saint John council votes in favour of P3 water deal. Retrieved June 7, 2013, from <http://www.cbc.ca/news/canada/new-brunswick/story/2013/03/26/nb-p3-water-saint-john.html>
- Canadian Council for Public-Private Partnerships. (2008). *Public Sector Accounting for Public-Private Partnerships in Canada*. Retrieved June 7, 2013, from http://www.pppcouncil.ca/pdf/pppfinance_072008.pdf
- CLRT. (2006). *Canada Line Final Project Report*. Retrieved June 7, 2013, from http://www.partnershipsbcc.ca/files-4/documents/Canada-Line-Final-Project-Report_12April2006.pdf
- Colussi, D. and Grdadolnik, H. (2007). Public Private Partnerships: Roles for the architect in a new procurement environment. Retrieved June 7, 2013, from http://www.raic.org/continuing_education/presentations/RAIC07-manual_e.pdf

Coghill, K. A., and Woodward, D. F. 2005. Political issues of public-private partnerships. In *The Challenge of Public-Private Partnerships: Learning From International Experience*, ed G. Hodge and C. Greve, 81-94. Cheltenham UK: Edward Elgar Publishing Limited.

Deloitte and Touche. (2011). *Chief Peguis Trail Extension Project Value for Money Report*. Retrieved June 7, 2013, from <http://www.winnipeg.ca/publicworks/MajorProjects/ChiefPeguisTrail/PDF/2011-11-25-CPTEP-ProjectReportFinal.pdf>

Edelenbos, J, Teisman, G R, (2008). Public – private partnership: on the edge of project and process management. Insights from Dutch practice: the Sijtwende spatial development project. *Environment and Planning C*, 26, 614 – 626.

Engles, E. Fischer, R. and Galetovic, A. (2011). Public-Private Partnerships to Revamp U.S. Infrastructure. *Brookings Institution*. Discussion Paper 2011-02.

Flyvbjerg, B., Bruzelius, N. & Rothengatter, W. (2003). *Megaprojects and risk: An anatomy of ambition*. New York, NY: Cambridge University Press.

Garvin, M., & Bosso, D. (2008). Assessing the effectiveness of infrastructure public-private partnership programs and projects. *Public Works Management and Policy*, 13(2), 162–178.

Grimsey, D., and Lewis, M. (2004). *Public private partnerships*. Cheltenham, UK: Edward Elgar.

HM Treasury. (2012). *A New Approach to Public Private Partnerships*. Retrieved June 7, 2013, from http://cdn.hm-treasury.gov.uk/infrastructure_new_approach_to_public_private_partnerships_051212.pdf

HM Treasury. (2006). *Value for Money Assessment Guidance*. Retrieved June 7, 2013, from http://www.hm-treasury.gov.uk/d/vfm_assessmentguidance061006opt.pdf

Hodge, G. and Greve, C. (2007). Public-private partnerships: An international performance review. *Public Administration Review*, 67(3), 545–558.

Hodge G., and Greve C. (2010). Public-private partnerships: Governance scheme or language game? *Australian Journal of Public Administration*, 69(Suppl. 1), S8–S22.

Huxham, C., and Vangen, S. (2000). What makes partnerships work. In S. P. Osborne (Ed.), *Public-private partnerships: Theory and practice in international perspective* (pp. 293–311). New York, NY: Routledge.

Infrastructure Canada. (2011). *Infrastructure Spotlight: Improving Canada's Infrastructure Through Public-Private Partnerships*. Retrieved June 7, 2013, from http://www.p3canada.ca/_files/P3_eng.pdf

Menzies, I. and Mandri-Perrott, C. (2010). Private sector participation in urban rail. *Grid Lines*, 54, 1-4.

Shaoul, J., Stafford, A., & Stapleton, P. (2007). Partnerships and the role of financial advisors: Private control over public policy? *Policy & Politics*, 35(3), 479–495.

Siemiatycki, M. and Farooqi, N. (2012). Infrastructure Public-Private Partnerships: Delivering Value for Money? *Journal of the American Planning Association*, 78:3, 283-299

Siemiatycki, M. and Friedman, J. (2012). The Trade-offs of Transferring Traffic Demand Risk on Transit Public-Private Partnerships. *Public Works Management and Policy*, 17:2

Siemiatycki, M. (2010). Delivering Transportation Infrastructure Through Public-Private Partnerships: Planning Concerns. *Journal of the American Planning Association* 76: 43 – 58.

Siemiatycki, M. (2007). What's the Secret? The Application of Confidentiality in the Planning of Infrastructure Using Private-Public Partnerships. *Journal of the American Planning Association*.73(4), 388-403.

Whitfield, D. 2010. *Global Auction of Public Assets*. Nottingham: Spokesman Books.

Whitfield, D. 2006. *New Labour's Attack on Public Services*. Nottingham: Spokesman Books.

Yescombe, E.R. 2007. *Public-Private Partnerships: Principles of Policy and Finance*. Burlington MA: Butterworth-Heinemann