

## SELF-INTEREST SPRINGS ETERNAL: POLITICAL ECONOMY REASONS WHY PUBLIC-PRIVATE PARTNERSHIPS DO NOT WORK AS WELL AS EXPECTED

AIDAN R. VINING<sup>1</sup> AND  
ANTHONY E. BOARDMAN<sup>2</sup>

### Introduction

In many countries public-private partnerships (PPPs) deliver a wide range of goods and services, including roads, bridges, water treatment plants, schools, hospitals and prisons. In a “classical” PPP, a government typically uses a consortium of private sector firms to finance, design, construct, operate and maintain some new physical public infrastructure. Despite the increasing use of PPPs, evidence shows that many PPPs have produced unsatisfactory outcomes, including high transaction costs and project bankruptcy.<sup>3</sup> We argue that many of these problems ultimately stem from the conflicting goals and motivations of governmental actors and their private sector “partners”. Furthermore, although society must delegate operational authority to governments, governments are not society. Governments (being a mix of politicians and bureaucrats) can act in their own interest, often in ways that are antithetical to the interests of society as a whole. Additionally, private sector firms have their own self-interests, which are rarely congruent with the interests of society.

In order to explain why PPPs can fail to deliver social value, it is necessary to briefly explain what that means, that is, to provide a benchmark for comparison purposes. The most appropriate normative criterion for evaluating the social value of PPPs is *social welfare* (Boardman and

Vining 2011). In contrast, most of the criteria that governments and proponents of PPPs explicitly or implicitly use to justify the use of PPPs – such as deferring expenditures (“we don’t have any money to do this”), placing expenditures “off-budget”, better “value for money” and more “on time and on budget” – are inadequate or irrelevant. Indeed, using these criteria to deliver public infrastructure can lead to the destruction of social welfare, rather than its enhancement.

### The political economy analysis of PPPs

Broadly speaking, our theory of PPP behaviour and performance can be described as a political economy (PE) theory because it focuses on the consequences of individuals, firms and institutions (governments) engaging in primarily self-interested behaviour. (PE theory is also known as public choice theory or rational choice theory.) According to Buchanan (1996, p. 12) “(PE) analysis attempts to relate the behaviour of individual actors in their various capacities as voters, as candidates for office, as elected representatives, as leaders or members of political parties, as bureaucrats...to the composite of outcomes that we observe or might observe.”

PPP projects are government projects, even though private-sector agents deliver and manage them. From a principal-agent perspective, a government is the principal and the private sector participants are agents. To understand the behaviour of PPPs it is essential to consider the goals of both “partners”. In addition, where there are user fees, it is useful to consider the goals of project users.

First, let us consider governments. Oversimplifying somewhat, we posit that in their use of PPPs, governments essentially seek to maximise votes (Downs 1957) or political benefits. Governments routinely seek to obscure their level of spending and the tax requirements associated with that spending (Borcherding, Ferris and Garzoni 2004). If the political costs of direct taxation and expenditures increase because of debt and deficits, governments will move to more opaque methods of raising revenue or expenditures (Sauer 2001). They do so because elected officials act as though they believe that



<sup>1</sup> Simon Fraser University.

<sup>2</sup> University of British Columbia.

<sup>3</sup> See Boardman and Vining (2012) for a review and discussion of empirical studies. This paper also draws on that previous study in other respects. Also see Hodge and Greve (2007).

voters do not exhibit rational expectations with respect to expenditures (Marlow and Joufaian 1989; Joufaian and Marlow 1991). Ura and Socker (2011) summarise this fiscal illusion argument as follows: "...factors that attenuate the link between taxes and government spending (such as deficit financing or tax complexity) distort perceptions of the costs and benefits of government services and can lead to inefficient resource allocations." In sum, incumbent governments wish to provide current users and (myopic) voters with the benefits of infrastructure projects, while deferring their costs to future politicians, future voters and users. Given that a current (democratic) government faces some positive probability that it will not be in power in the future, it usually exhibits a high political discount rate, that is, it attaches a low weight to future costs. All other things being equal, it prefers to defer budget recognition of current expenditures to future governments and to defer taxes to future taxpayers. Where governments face public sector borrowing limitations, their goal is to keep borrowing off their balance sheets until future time periods (see Burret and Feld 2014 for the evidence).

A fundamental difference between a PSC (Public Sector Comparator) and a PPP concerns the timing of cash flows. In a PSC, government incurs large "up front" costs and relatively low costs "over time" (typically for 30 years); whereas in a PPP, government pays nothing "up front" and a lot more "over time".

Governments can therefore garner political credit for delivering project benefits instantly, while transferring many of the government costs to the future. However, the government cash costs are merely shifted, not eliminated. Boardman and Vining (2010b) characterise this government strategy as "renting the money". Can "renting the money" increase social welfare? Probably not. The government's payments are transfers from a social perspective. Even if the PPP's operating costs were lower, the PPP would require compensation for arranging the financing and assuming risks, and government transaction costs would probably be higher, as discussed later.

Another dimension of vote maximisation concerns governments' calculations of political risk associated with unsuccessful infrastructure projects. When governments engage in major infrastructure projects, project risk often "morphs" into political risk. Very large cost overruns or drastically overestimated revenue projections are hard to hide and can be exploited by the media and opposition parties. From a normative perspective,

different project risks should be allocated to the party that can mitigate them at the lowest cost. From the PE perspective, however, there are benefits to governments from attempting to reduce the political risk that can arise from project risk, even when such attempts do not reduce costs. In effect, a PPP can buffer governments from both the negative financial consequences of projects and the political risks that the latter entail.

Finally, PPPs may provide political benefits to politicians by channelling financial benefits to aligned interest groups like merchant banks, investment banks, large construction companies and consultants.

The primary goal of private-sector participants (firms) is to maximise profits. Sometimes this reality gets lost in the "partnership" rhetoric and in governments' desire to deliver services. More precisely, firms wish to maximise the present value of their future risk-adjusted cash flows *at all times* during the contract. There are two components: cash flows and risk. As far as cash flows are concerned, the initial private-sector participants obviously want to maximise the present value of their cash flows over the entire life cycle of the contract, and will develop an initial profit-maximising strategy. Over time, as events unfold, especially unforeseen events, firms' optimal strategies will often change (Dagdeviran 2011). For example, some members of a consortium may find it profit-maximising to sell their equity interest almost immediately. Other firms may be quite aware that PPP contracts operate within a milieu where governments seek to maximise votes and could exploit this situation opportunistically. They may pander to governments' desire for lower expenditures in the short run, expecting that they will be able to extract more profits later through renegotiation of incomplete contracts (Dagdeviran 2011).

In terms of risk, private sector participants will forego some expected profits if they can reduce risk sufficiently. Indeed, firms often turn out to be more risk-averse than public-sector participants had expected. One potential reason is that firm managers and investors typically bear the consequences of taking investment risks that turn out badly more directly and personally. Whatever the reason, firms often require high premiums to accept risk or may not be prepared to accept certain kinds of risk at all. Of course, they will be unable to obtain a high risk premium if the bidding process is highly competitive, but often it is not, due to numerous barriers to entry stemming from the nature of the project, its size and complexity, steps taken by the government itself (for ex-

ample, restricting bids to domestic firms), expertise in contracting with government or other barriers.

Finally, we consider (potential) project users who have to pay tolls or user fees. Again simplifying somewhat, users will lobby for free access (that is, a zero price) to project services, even when the social marginal cost is positive (non-zero). It is difficult, although not impossible, for future users to get organised (there may be a collective action problem) *before* the project payment regime is finalised. Thus, users tend to have little influence over whether a project is developed as a PPP or as traditional government procurement. However, users can and do mobilise after the infrastructure has been built and tolls are imminent or in place.

Taxpayers, by contrast, have paid almost no attention to PPP issues, whether because of the well-known collective action problem (Olsen 1965; Sandler 1998) or because of fiscal illusion (Dollery and Worthington 1996). In practice, therefore, they can be largely ignored from the PE perspective.

### Political economy analysis and the social welfare consequences of PPPs

Governments' tendency to maximise votes, firms' tendency to maximise profits, and paying users' tendency to want free infrastructure services, along with taxpayers' tendency to be rationally ignorant and myopic, lead to some predictably negative consequences. Of course, our criticisms of PPPs should not be seen as an endorsement of traditional government procurement, which also has many problems (Flyvbjerg 2014). This section examines the behaviour and outcomes of PPPs based on our analysis of numerous peer-reviewed studies (Boardman and Vining 2012). We contrast these behaviours and outcomes with the objective of social welfare maximisation and attempt to provide explanations for them from a PE perspective. Overall, studies on this topic to date have adopted a wide variety of empirical and critical perspectives. Some simply documented obviously bad outcomes such as strategic behaviour, bankruptcy, eventual government take-over or disputes over cost overruns. A few studies adopted an explicit social welfare evaluation perspective.

Much of the evidence about PPP performance comes from value for money (VfM) studies. Many of these studies claim that PPPs have lower total costs (in present value terms) than a notional alternative called the

public sector comparator (PSC) that is representative of traditional public-sector provision. However, such conclusions should be greeted with scepticism. Many scholars have questioned the accuracy, depth and objectivity of VfM studies (Heald 2003; Shaoul 2005; Edwards et al. 2004; Shaffer 2006; Boardman and Vining 2010a; Johnston 2010). As an indicator of social welfare, VfM studies have many potential problems. First, they only consider the cost to government and ignore impacts on consumers, producers or employees. They therefore omit important segments of society.<sup>4</sup> Second, transaction costs are omitted or are likely to be under-estimated for reasons we discuss later. Third, VfM studies have often been conducted by the same government agency that is responsible for deciding whether to engage in a PPP in the first place (Vining and Boardman 2008b). These agencies may be biased. Fourth, it is very difficult to obtain independent corroborating evidence as the relevant data resides in the government agencies that are responsible for promoting PPPs. Fifth, most VfM studies use inappropriate discount rates (Johnston 2010). Moore et al. (2004) and Boardman, Moore and Vining (2010) argue that the appropriate real discount rate to use in a social welfare evaluation of any government project is in the region of 3.5 percent, while some VfM studies use real discount rates in the region of seven percent and others use discount rates of about one percent. In some extremely biased VfM studies, PPP's costs are discounted at the PPP consortium's weighted average cost of capital, while the PSC's costs are discounted at the government's borrowing rate, which is much lower.

In fact, some *ex post* evaluations find that PPPs do not have lower costs in any meaningful sense. Edwards et al. (2004), for example, concluded that the UK Highways Agency paid a 25 percent premium on the construction cost of its first four PPP road projects in order to ensure that they were built "on time and to budget". Similarly, Blanc-Brude, Goldsmith, and Valila (2009), in their examination of European road project PPPs carried out between 1990 and 2005 conclude that *ex ante* construction prices of PPPs were approximately 24 percent higher than for traditional road procurement. They find that this is roughly equivalent to reported *ex post* cost overruns for traditionally procured roads.

We now turn to risk transfer by governments. Governments usually transfer *most* of the design, construction and operating cost risk to the PPP. PPP proponents often maintain that this transfer is a major benefit

<sup>4</sup> For example, the comparisons are not always "like with like", that is, there may be quality differences between the PPP and the PSC.

of PPPs. However, from a social welfare perspective, “a transfer is a transfer”. There are risks associated with any project. If welfare weights are equal to one (usually the appropriate assumption), and a given risk is simply transferred from the government to the private sector, any reduction in government risk is completely offset by an increase in risk held by private-sector equity and/or debt holders. The change in social welfare is zero.

What matters from a social welfare perspective is whether a PPP will reduce the cost of the negative outcomes. PPPs might potentially be better able to reduce some risks than traditional public-sector provision due to superior managerial competence or superior cost-containment incentives and behaviours. Nonetheless, private sector participants are compensated for bearing these risks. Risk transfer should not be double counted or treated as an additional benefit, but it often is. Furthermore, governments always remain as the *residual* financiers and risk holders. Whenever a private-sector consortium goes bankrupt, governments often feel compelled to move forward with the project (Dagdeviran 2011). Given that governments should ignore “sunk costs”, completion of most projects is appropriate. In practice, however, some private-sector investors also receive a significant reduction in their “haircut”. In effect, the private sector has a put option (although one without a strike price), which is probably under-priced in most PPP contracts.

The evidence suggests that PPP consortia are usually unwilling to accept revenue risk, which depends on demand (sometimes called use risk) and pricing (tolls). Vining and Boardman (2008a) found that PPP projects with the highest use risk were less likely to have this risk transferred to the private sector. These PPP projects were “greenfield” projects. Not surprisingly, the private sector is more willing to accept use risk and revenue risk in “brownfield” (concessionary) projects where there is a user track record, e.g., US road concessions where traffic volumes (at least at current toll levels) are easily verifiable.<sup>5</sup>

Vining and Boardman (2008a) also observed that use risk was typically higher in larger projects, indicating that the private sector may be especially unwilling to take on use risk when projects are large. Governments with little experience of PPP negotiations seem particu-

larly unable to transfer *any* revenue risk and often end up essentially guaranteeing private-sector profits; see, for example, the Zagreb Wastewater Treatment Plant in Croatia, and the Horgos-Pozega Highway in Serbia (Bacheva-McGrath et al. 2008).

For the reasons discussed above, private sector participants may try to renegotiate contracts when they observe, or can create, an opportunity to do so (Posner, Ryu, and Tkachenko 2009; Dagdeviran 2011). Such actions increase governments’ transaction costs. VfM studies do include some estimated transaction costs, but the accuracy of these estimates is highly questionable. Many PPP projects are likely to have high transaction costs because they often have many of the following characteristics: high asset specificity, high complexity, high uncertainty, high construction or use risk (or both), low *ex ante* competitiveness and poor government contract management skills (Vining, Boardman and Poschmann 2005). PPP infrastructure projects always have unique characteristics. They are often fairly complex and may suffer from considerable uncertainty, given that they are usually long-lived and life cycle use can be influenced by many exogenous factors. Of course, complex and uncertain projects are exactly where governments would like to reduce their risk exposure, but they tend to have high transaction costs. While government contract skills in some countries are improving, they are often still poor. In these cases, governments are particularly vulnerable to opportunistic behaviour by private sector participants. Bacheva-McGrath et al. (2008) document many PPP projects in Eastern and Central Europe that have exhibited high transaction costs, including the M1/M15 motorway in Hungary, the Trakia Highway in Bulgaria and the Horgos-Pozega motorway in Serbia. In sum, PPP contracting can be thought of as government contracting out under unfavourable circumstances. Vining and Boardman (2008a) argue that transaction costs have been high in the past even in developed countries. It is probable that when accurate estimates of government transaction costs are added to government production costs, the potential cost superiority of PPPs is considerably diminished or eradicated in some jurisdictions.

PPP advocates often treat the sale proceeds from concessions as a benefit without appropriately considering the opportunity cost. Brown (2007 p. 322), for example, claims: “One of the key drivers of value in the Indiana Toll Road, Chicago Skyway, and Texas SH 121 leases was the ability of the concessionaire to make an upfront payment in return for the future cash flows that the pro-

<sup>5</sup> It is debatable whether the sale of existing facilities should even be considered as PPP “infrastructure” projects: they are essentially financial engineering projects; see Ashton, Doussard, and Webber (2012) and Snyder and Luby (2012). Such projects are unlikely to increase social welfare as we discuss later.

ject would produce.” Concession sales are similar to “renting the money” because government cash flow is higher upfront and lower in the future than would otherwise occur. As discussed earlier, this strategy cannot be explained by social welfare maximisation. But, it can be explained from a PE perspective. The obvious benefit is that governments get money *now*, which they can use to obtain political benefits like reducing current taxes or engaging in other voter-desired projects.

An additional attractive feature of concession sales from governments’ perspective is that users might be willing to pay higher tolls to the PPP than to a government-managed project, although evidence is hard to find. Nonetheless, greater distance from toll payers may reduce a government’s political risk when tolling and allow PPPs to impose or increase user fees.<sup>6</sup> The PPP may act as the “bad cop” and then share the higher toll revenues with government. This strategy presumes a certain naivety on the part of user-voters or an inability to overcome the collective good problem. It does not always work. Users can be an effective lobby group and, on occasion, they have forced governments to “buy out” the PPP operator.

How well do private-sector participants in PPPs fare? As one might expect, it varies considerably. Some PPPs have resulted in well-publicised bankruptcies, such as Metronet in the UK, the South Bay Expressway in San Diego, and the Cross-City Tunnel in Sydney, Australia. It is important to remember that some degree of private-sector partner bankruptcy is optimal from a societal risk-allocation perspective. Many PPP bankruptcies, however, impose high transaction costs on governments. Furthermore, many bankruptcies have been instigated by stand-alone subsidiaries, suggesting some degree of opportunistic behaviour by private sector actors (although not technically participants because of the arms-length corporate structure).

Many private sector firms have specialised in PPP projects. This strategy allows firms to be compensated for assuming non-systematic risk and then reducing this risk through diversification. Presumably, these firms earn *at least* a normal return from this business. Given the numerous barriers to entry, the returns are likely to be higher. The empirical evidence concerning private sector returns from individual PPPs is slim, as firms do not publish financial data on individual projects. However, Vecchia, Hellowell, and Gattic (2013) find that

<sup>6</sup> Interestingly, where the infrastructure is congested, political benefits and social welfare may be aligned by a PPP imposing higher tolls.

private sector participants in PPPs that provide hospital facilities in the UK earn an *excess* return of almost ten percent on average.

Finally, it is important to note that in PPP negotiations, governments often get sucked into an “escalation of commitment” (Ross and Staw 1986; Dietz-Uhler 1996). For a government, there is often more at stake in terms of political outcomes (and symbolism) than there is in terms of the project outcome itself (Edelman 1985; Brown 1994). Politicians have been vulnerable to escalation of commitment for two reasons. First, those initiating the PPP agenda have usually made an ideological commitment to the PPP process. Second, although many of the economic costs on a particular project may be sunk at some given point, the political costs are not sunk. Politicians in executive positions (as well as government PPP contracting agencies) want to avoid the perception that they have made bad investment decisions or that they are vacillating or weak. As a result, even if a PPP develops major problems, political proponents are unable to (credibly) threaten to “pull the plug” on a project. Knowing this, private sector participants may “up the ante”, especially if they sense desperation on the government’s part. This problem can be most severe when a PPP is still in the construction phase and/or where a project has already started and the contract has not been finalised. The most severe manifestation of the escalation of commitment is government ending up guaranteeing all or a large part of the debt of a project. In the Metronet case, for example, the government ended up guaranteeing 95 percent of the loans (in a project that was 88.3 percent debt financed) (Vining and Boardman 2008b, p. 154–156). Such strategic actions tend to increase private-sector participant profits (or at least reduce their losses) at the expense of the government.

## Conclusion

Proponents of PPPs tend to assume that the following premises are true: (1) there is a shortage of public funds available for infrastructure; (2) private-sector providers of private capital can, and will, provide the funds at a similar cost as public capital and then combine it with better (cost-) efficiency to deliver superior (i.e. lower cost) projects; (3) because the private-sector and public-sector are “partners”, some of these cost savings will be passed back to the public-sector so that the public sector is better off than it would have been if it had financed and managed a PSC. The PE approach that we have expounded here shows why both public-sector

and private-sector participants in a PPP want to believe these premises. Furthermore, even if they do not, the approach explains why they espouse them; namely, because it is in their self-interest to do so.

The most critical issue is the motivation (i.e. the goals) of governments because all PPPs are government projects. Our basic premise is that governments are vote-maximising entities. The idea that governments will spend now to garner votes while imposing costs on subsequent governments and taxpayers, as we have emphasised, is not a new or startling idea. However, the application of these PE ideas to PPPs does not appear to be as widely recognised or accepted. Indeed, much of the current PPP literature has a “Pollyanna” feel and does not evaluate PPPs based on any clear or explicit behavioural theory or against any clear welfare function.

In this short paper, it is beyond our scope to discuss the “shortage” of public capital premise except to note that the idea is suspect. As we discussed above, in a PPP, the government’s cash costs are shifted (later), they are not eliminated. Either way, these costs will be paid for by society as a whole (i.e. primarily taxpayers) sooner or later. The shortage of capital is not likely to be less of a problem in the future than it is now and the willingness of taxpayers to pay tax is not likely to be less in the future than it is now. Whenever costs occur, they should be discounted at the opportunity cost of public funds, which is given by the social discount rate (see Moore, Boardman, and Vining 2013a, 2013b). This rate does not change over time, at least not over the contract period of a typical PPP.

If the PE reality dominates, is there any possibility of better decision-making regarding the choice of project procurement method (i.e. PPP vs. PSC)? We live in hope, and have provided some rules for better contracting elsewhere (Vining and Boardman 2008b). However, the PE perspective suggests that it will be difficult for governments to implement better institutional design. Politicians will remain politicians who seek re-election by providing what appear to be “free lunches”, while firms will still try to take advantage of political impulses in order to increase their profitability. There are nevertheless two reasons for believing that better rules have some hope of being implemented. First, politicians face political competition. Dramatically dysfunctional PPP outcomes, such as bankruptcies and abandonment that anger users or voters, end up being costly in political terms (especially if they show up within an electoral cycle), as well as from a social welfare perspective.

Second, there is evidence that ideas, including those relating to better institutional design, do indeed influence voters, stakeholders and governments. In view of this fact, taxpayers that unite in self-organised interest groups, may eventually realise that they have to foot the bill.

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