

**PUBLIC-PRIVATE PARTNERSHIPS: WHAT
GOVERNMENTS SHOULD DO (MOSTLY TO
THEMSELVES)**

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THIS PRESENTATION...

- This presentation (and the paper) examines P3s from a positive theory perspective (that is, how the parties actually behave).
- The various kinds of P3s are alternatives to government provision and contracting-out.
- The positive theory perspective is based on an examination of recent experience in North America (Boardman, et al., 2005; Vining, et al., 2006; Vining & Boardman, 2008).
- Also based on case study evidence from a number of countries, including the U.K. (Pollock, et al., 2000; Broadbent & Laughlin, 2004; Grout & Stevens, 2003; Pollitt, 2005; Shaoul, 2005), Ireland (Reeves, 2003), the Netherlands (Klijn & Teisman, 2003; Koppenjan, 2005), Denmark (Greve and Ejersbo, 2003) and Australia (English, 2005; Hodge, 2005).
- We apply the positive perspective to Metronet, the massive London Underground P3.
- We conclude with some “rules” for government.

THREE MAJOR OPTIONS FOR INFRASTRUCTURE DELIVERY

- There are three major structural options for infrastructure delivery (although many variants of each):
 - Direct public provision
 - Contracting-out
 - Public-private partnerships (P3)

NORMATIVE PERSPECTIVE ON INFRASTRUCTURE DELIVERY

- Normative criterion to judge provision of infrastructure by government?
- Minimize the sum of total social costs.
- More specifically: minimize the sum of production costs, transaction costs and negative externalities.
- Even more specifically, as costs for infrastructure occur over time: minimize the net present cost (NPC) of the sum of production costs, transaction costs and negative externalities.

THE MAJOR COST DIFFERENCES BETWEEN OPTIONS

- **Direct public provision:** high production costs because of lack of scale (including learning economies), expertise and especially X-inefficiency (see cites in paper).
- **Contracting-out:** reduced production costs because of competitive pressures (competition for the contract). But, increased transaction costs (and perhaps externalities) because government now has to negotiate, renegotiate and monitor contracts. Also has to bear costs to demonstrate capability to bring back in-house. Transaction costs are particularly high when projects are idiosyncratic, complex and uncertain (Globerman and Vining, 1996).
- **Public-private partnerships (P3s)** can reduce production costs, but similar to contracting-out, have high transaction costs and externalities because of goal conflict.

WHO'S MAXIMIZING WHAT?

- While the language of “partnership” is endemic to P3s, the basic premise of this paper is that the public and private participants have conflicting interests (Trailer *et al.*, 2004), because they have different goals (objective functions).
- Private sector participants goal (objective function) is to *maximize risk-adjusted profits*.
- Public sector participants goal (objective function) is to *minimize the sum of expected present, on-budget net public expenditures and political costs*.

PRIVATE SECTOR GOAL IN MORE DETAIL

Private sector participants wish to:

- *Maximize risk-adjusted profits over the contract life. Given that the contract cannot be fully specified ex ante this implies that private sector participants maximize the expected net present value of the initial contract and at any other time during the life of the contract.*

PUBLIC SECTOR GOAL IN MORE DETAIL

The public sector participants (in this case, it is primarily politicians rather than civil servants) wish to:

- *Minimize the sum of the current government's current expenditures, on-budget debt and political costs. Over the life of the P3, there may be several governments. With each new government, the objective function restarts anew; in other words, the prior government cannot totally commit the new government to the project or the existing contract.*

CONSEQUENCES OF PRIVATE SECTOR GOAL

- *Ex ante*, private sector participants wish to maximize the NPV of their profits *over the contract life*.
- At any point in time after the project has started (*in medias res*), private sector participants want to maximize the NPV of future profits, computed at that time.
- This emphasizes that profit maximization is not a one-period phenomenon: if private sector actors find new profit opportunities as the contract unfolds, they will seek to capture them.

CONSEQUENCES OF PRIVATE SECTOR GOAL (cont'd)

- Of course, if contracts are written very tightly, they will have no opportunity to increase profits over time.
- However, there is usually some scope to engage in this form of behavior or opportunism. (The evidence certainly suggests that governments often perceive many contract renegotiation efforts as opportunistic.)
- It seems to be a particular problem if the private sector partner changes ownership, perhaps because new owners are less bound by tacit “understandings”.

CONSEQUENCES OF PRIVATE SECTOR GOAL (cont'd)

- Private sector participants are *risk-adjusted* profit maximizers: willing to forego some profits if they can reduce risk sufficiently.
- Private sector participants may be considerably more risk-averse than public sector participants, at least *ex ante*.
- The Canadian P3 evidence indicates the willingness of private sector firms to bear user risk quite rationally declines with the level of user risk (Vining and Boardman, 2008).
- The evidence from the U.K. and Australia also shows that governments have not been very successful at shifting risk to the private sector (Shaoul, 2002; Asenova and Beck, 2003; Edwards and Shaoul, 2003; English and Guthrie, 2003).
- Contract negotiations associated with attempts to shift risk have been extremely costly (Li, 2003).

CONSEQUENCES OF PRIVATE SECTOR GOAL (cont'd)

- One reason for not taking on risk is that private sector managers and equity investors bear the consequences more directly and personally if risks turn out badly.
- As a result, they require high premiums to accept risk, especially use risk (also called revenue or demand risk).
- Many private firms are relatively unfamiliar with the particular use risks associated with government projects, although this is less true of the global firms that specialize in P3-type projects. As a corollary, however, these sophisticated firms are aware that they often have little control over many of the factors that drive demand and that use risk is almost always potentially subject to *ex post* manipulation by their political partners or their successors.

CONSEQUENCES OF PRIVATE SECTOR GOAL (cont'd)

- Private sector firms will formally accept use or demand risk if the premium is high enough: just as we all can get a fixed-price contract for our house renovation if we are prepared to pay a high enough price.
- But, this price premium is usually so high that we usually opt for the variable labour-and-materials contract where the price is not fixed.

CONSEQUENCES OF PRIVATE SECTOR GOAL (cont'd)

- In order to further minimize their risk, even when use-risk has been avoided, sophisticated private sector partners are likely to:
- Form “stand-alone” P3 corporations and subsidiaries (Brown, 2005; Hood, Fraser, and McGarvey, 2006). This reduces their worst-case costs because they can declare the stand-alone corporation bankrupt.
- Limit capital exposure through the use of extensive third-party debt financing (Roll and Verbeke, 1998). Large consortia of European and South American banks have often taken on this debt.
- Fairly quickly selling off much or all of their equity to other parties, sometimes to syndicates, limited partnerships and close-end funds.

CONSEQUENCES OF PRIVATE SECTOR GOAL (cont'd)

- The likelihood that P3s will deliver projects to government with at lower prices depends on private sector partners having the appropriate incentives to equate profit maximization with project cost minimization.
- If, firms are *de facto* remunerated on a “cost-plus” basis because of poorly written/enforced contracts they have an incentive to increase, rather than lower, project costs (McAfee and McMillan, 1988).
- If firms can form stand-alone corporations or limit their equity participation, they may have opportunities to minimize losses (a form of profit maximization) even though this raises costs for government.

CONSEQUENCES OF PUBLIC SECTOR GOAL (cont'd)

- the governmental goal of minimizing the sum of current government expected expenditures, on-the-books expenditures and debt and political costs implies that (current) governments display some degree of political self-interest and values the political benefits that result from the minimization of both current expenditures (on and off budget) and on-budget debt (Coghill and Woodward, 2005).
- Political self-interest explicitly introduces the public choice idea of vote-maximizing behaviour by politicians.
- This raises aggregate social costs and specifically transaction costs (Downs, 1957; Mueller, 2003).

CONSEQUENCES OF PUBLIC SECTOR GOAL (cont'd)

- There is consensus that removing a project to an off-budget organization does not alter the social costs and benefits (Jenkinson, 2003; Vining, Boardman and Poschmann, 2006).
- But, it is attractive to governments that face budget constraints: “An example of this...stratagem is Ispa, the Italian off-budget agency created to form PPPs and raise capital by issuing state-guaranteed bonds, so as to finance new infrastructure, while complying with the European Stability and Growth Pact” (Maskin and Tirole, 2008).
- This also appears to be a factor in the attractiveness of P3s for other governments as well (e.g., Reeves, 2003; Shaoul, 2006).

CONSEQUENCES OF PUBLIC SECTOR GOAL (cont'd)

- Governments prefer off-budget expenditures to on-budget expenditures because voters receive infrastructure benefits, but are less likely to perceive costs: fiscal illusion (see Vining and Boardman, 2008, for further discussion).
- The positive theory perspective focuses on the goals of the *current* government. Holding all else constant, a current government prefers future expenditures that appear on future budgets (with potentially different politicians) or are paid by future users to present expenditures. Of course, deferring expenditures (costs) does not lower costs *per se*; in general, we expect deferment to raise the NPC of projects.

CONSEQUENCES OF PUBLIC SECTOR GOAL (cont'd)

- When considering P3s, government must trade-off the political benefits that “future and off-budget” expenditures generate against any other political costs and benefits.
- These costs could relate to current or eventual public dissatisfaction with subsequent private sector “gouging”, poor service, high user prices or whatever.
- In sum, the objective function focuses on the *expected* costs for the *current* government.

CONSEQUENCES OF PUBLIC SECTOR GOAL (cont'd)

- The governments', especially politicians', expenditure-costs-versus-political-costs equation can change unpredictably.
- Political costs can shift from a weighting of "0" *ex ante* (i.e., before construction) to a weighting of "1" *ex post* (i.e., after construction completion, but before the expiration of the P3 contract).
- Additionally, future political costs do not have high saliency for current politicians. But obviously, once they do arise, they have high saliency for the new cohort of politicians.

CONSEQUENCES OF PUBLIC SECTOR GOAL (cont'd)

- When political costs do rise the private sector participant may be able to “hold-up” government and extract additional payments of various kinds.
- Governments (especially elected politicians subject to voter discontent) often panic when faced with rising political costs (Gausch, Lafont and Straub, 2008).
- Increasing user fees most often provoke user-voter discontent.

CONSEQUENCES OF PUBLIC SECTOR GOAL (cont'd)

- Politicians have a tendency for “escalation of commitment” (Ross and Staw, 1986; Dietz-Uhler, 1996).
- Politicians may be vulnerable to escalation because a government beginning a P3 process is committing to relatively radical ideological change. Thus, there is symbolism as much as substance at stake.
- P3s often involve some degree of arm-wrestling with “nattering nabobs of negativism” (i.e., civil servants) that favor traditional government production or contracting-out.
- Also, politicians in executive positions—governors (in the United States), premiers and prime ministers (in Canada)—abhor the perception that they are vacillating or weak.

CONSEQUENCES OF PUBLIC SECTOR GOAL (cont'd)

- Political escalation of commitment can encourage the private sector to engage in strategic behavior: “making their best offer first”, especially if they sense desperation.
- This problem can be severe when a P3 is still in the construction phase. There is only one candidate provider and the “fundamental transformation” has taken place.
- Problem is well known in defence contracting (Melese et al., 2007).
- Escalation of commitment is a function of politicians in power at that time (a intra-government cohort problem).
- This does not detract from *government's* difficulty with committing to future actions (Kydland and Prescott, 1977); an inter-governmental cohort problem.

THE BOTTOM LINE ON GOAL CONFLICT

- Goal conflict between participants in a joint venture is not surprising.
- Still, if the potential gains from private provision are large due to superior private sector efficiency, P3s could produce “win-win” outcomes.
- But, a number of factors associated with infrastructure projects both raise the transaction costs of utilizing the P3 format to deliver these projects and reduce the likelihood that the public sector will achieve its cost-reduction goal.
- Transaction costs in P3s are likely to be high because infrastructure projects present relatively complex contracting situations, especially larger projects that embody technological innovation.
- Indeed, one can think of P3s as simply contracting-out under unfavourable conditions.

THE METRONET CASE (1)

- Goal conflict emerged in its starkest form when the parties soon disagreed on the fundamental nature of the contract.
- The government acted as if it had purchased an output-based, fixed price contract. The private sector acted as if it had agreed to a series of heterogeneous, cost-plus contracts (UKHCTC, 2008: 12-13).
- This created ongoing conflict and was inevitably the source of much of the *ex post* transaction costs during the relatively short period that the contract was operational.
- This fundamental disagreement seems unbelievable in an enterprise of this magnitude.

THE METRONET CASE (2)

- Metronet illustrates the difficulty of risk transfer, even though it was a major initial rationale for the P3 contracts.
- The House of Commons Committee of Public Accounts (UKHCCPA, 2005: 11) noted that by the time of contract finalization there was almost no risk transfer to the private sector (i.e., to the “Infracos”).

THE METRONET CASE (3)

- As with many infrastructure P3s that require large capital expenditures, Metronet had a high debt-to-equity ratio. But, even so, the Metronet debt ratio was high: 88.3% debt to 11.7% equity (Blaiklock, 2008).
- So, if there had been risk transfer, in the worst-case scenario of bankruptcy, it would largely have been borne by debt holders.
- However, the government guaranteed 95% of their £3.8 billion loan (Economist, February 7th, 2008).
- The House of Commons Transport Committee estimated even then that the banks charged £450 million more than they would have for debt issued directly by the government (UKHCTC, 2008).

THE METRONET CASE (4)

- The five equity participants—WS Atkins, Balfour Beatty, Bombardier, EDF Energy and Thames Water—split the equity requirement of £350 million between them, approximately £70 million each.
- This amounted to approximately £250 million total after taxes upon bankruptcy (the eventual outcome); for these corporations, this was certainly not a huge write-off.
- Furthermore, these firms were major suppliers to the project.
- The UK House of Commons Transport Committee described this as a “tied supply chain” (UKHCTC, 2008: 7-8). Indeed, Metronet received £3 billion in service charges from 2003 to 2007, or approximately 60% of all capital expenditures.
- A large percentage of this was passed on to Bombardier or to Trans4m, a stand-alone corporation owned by the other four equity partners.

THE METRONET CASE (5)

- The overall transaction costs were, and will continue to be, extremely high.
- The House of Commons Public Accounts Committee (UKHCPAC, 2005: 14) estimated the (*ex ante*) transaction costs of Metronet as follows:
“Transaction costs for the deal were £455 million, or 2.8% of the net present value of the deal.”
- London Underground’s own costs were £180 million.
- It also reimbursed bid costs of £275 million.
- The Department said that it had learned a lesson about controlling bid costs.”

THE METRONET CASE (5)

- Two circumstances raise the probability of high transaction costs:
- (1) When the government initiating the P3 has poor contract management skills (Boardman and Hewitt, 2004). Governments with weak contracting ability and experience do not have the skill to write appropriate contract provisions for them *before* the contract is finalized.
- (2) When a public sector leader gets caught up in an escalation of commitment cycle and is determined to deliver the project as a P3.

GOVERNMENT RULES (1)

Rule 1: Establish a jurisdictional P3 constitution.

- This rule is really a meta-rule. Adopt as closely as possible quasi-constitutional provisions to ensure transparency for all P3s.
- The most important requirement for real transparency is that there be consistent and timely budget reporting on anything that smells remotely like a P3s.
- Another aspect of transparency that is valuable is the deposit and public availability of all contracts (Siemiatycki, 2007).
- Legitimate trade secrets should be protected through the sealing of specific contract provisions.
- A neutral third party should adjudicate the legitimacy of particular claims to secrecy.

GOVERNMENT RULES (2)

Rule 2: Separate the promotion P3 agency from the delivery P3 agency.

- Separate the agencies that:
- (1) Analyze the desirability of projects; that is, perform the (*ex ante*) social NPV of the project.
- (2) Decide which of the alternative provisioning forms to employ (government production, contracting or P3): does a P3 provide the best social value?
- (3) Administer the P3 process—the agency that organizes the tendering of bids, selects the partners, makes the final decision whether to proceed with a P3 and monitors contract implementation.
- (4) Monitors and evaluates the overall success of projects: did the P3 provide the best social value?

GOVERNMENT RULES (3)

Rule 3: Ensure that bidding is reasonably competitive.

- Ideology should be kept in check and public sector entities should be encouraged to bid. They may have valuable knowledge that would give them a cost advantage. This will not work for major projects unless mechanisms are in place for them to access private capital markets and package the necessary complementary skills (which may be in the private sector): could result in a “mini-P3” rather than a “maxi-P3”.
- The (government) P3 promoter should be pro-active in searching for bidders when they are not expected to be an “optimal” number of bidders. What is optimal? There is surprisingly little hard empirical evidence on the impact of bidders (competitors) on driving down prices to competitive levels. But, at least 3 or 4.

GOVERNMENT RULES (4)

Rule 4: Be wary of projects that exhibit high asset-specificity, are complex or involve high uncertainty, and for which in-house contract management effectiveness is low.

- When projects involve high uncertainty and are complex (they often go together), changes in plans and/or implementation are inevitable after the project has begun.
- Long-term projects (many infrastructure projects have life-cycles of 40-50 years) involve a fair amount of uncertainty.
- Once one participant (usually the private sector participant), has made an asset-specific investment, the costs of renegotiating can be very high. The ability to renegotiate at reasonable cost be thought of as a valuable option (there are usually not many options available with major infrastructure projects as they involve high asset specificity and significant scale).

GOVERNMENT RULES (5)

Rule 5: Include standardized, fast, low-cost arbitration procedures in all P3 contracts.

- This reduces transaction costs from lawsuits. In certain cases, monetary costs have been high. Even more problematically, they have taken an extremely long time to complete.
- It will normally make sense to think about two distinct arbitration procedures: (1) One for those disputes that the parties agree are minor. This procedure should be subject to strict specified time limits (never more than several weeks). It probably makes sense to have “shotgun” decisions: the arbitrator simply announces a decision and the remedy (if so, obviously remedies and penalties must be specified ex ante). (2) One for disputes that at least one party considers to be a major breach of contract. In this case, the arbitrator would be able to declare a breach of contract sufficient to abrogate the contract. While these procedures may seem draconian, the reduction of legal dispute costs provides reasonably symmetric benefits to both parties.

GOVERNMENT RULES (6)

Rule 6: Avoid stand-alone private sector shells with limited equity from the real principals.

- Discourage the private sector partners from establishing a subsidiary, stand-alone corporation. If this does occur, make the parent company co-sign the contract and accept significant liability. Of course, in a few circumstances it may be difficult to work out which corporation this is.
- If there is a stand-alone corporation, ensure that a required debt-to-equity ratio for the project is clearly specified. A too low debt-to-equity ratio can make it profitable (on the margin) for equity participants to declare bankruptcy.
- Limit large consortia of equity holders. With large numbers, it may not be in the interests of any equity holder to provide organizational leadership (a public good), even though it means walking away from a significant equity investment. This “large numbers” phenomenon certainly played a role in the collapse of Metronet.

GOVERNMENT RULES (7)

Rule 7: Have a direct, legally-enforceable conduit to debt holders.

This rule, of course, begs the question of why governments could access this capital directly themselves. Of course, some do. But, that is a story for another day.