To P3 or not to P3:
P3 assessment practice, P3 deal structures, and the will to P3 as a tax shield

by

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MA (English & American Literature; Leiden University; 2003)
BSc (Electrical Engineering; Queen's University, 1989)

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ABSTRACT

If public-private partnerships (P3s) represent much beyond alternate service delivery (ASD) re-branded, then it is the addition of private financing (PFI) that differentiates P3s from plausible procurement alternatives. With PFI as the incremental difference, this paper analyzes the will to P3 given the nonrecourse finance deal structures used in P3s in practice. The will to P3 is shown to be a debt interest tax shield – one firms garner without facing the trade-off between asset exposure and borrowing costs. The latter, lenders' monetization of the default risk of tax-transparent but limited liability P3 project companies, is P3 endogenous risk – incident on governments through P3 fees. In order to avoid assessing the causality of PFI to risk transfer beyond that achievable in ASD with fixed-price contracts and performance adjustments, P3 value for money (VfM) assessments are shown to reference an implausible alternative of pure public provision. Therein, the value of P3 risk transfer with which a non-P3 alternative is decisively discredited is shown not to be analyzed, but rather imported from guesstimates on early P3s.

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ACKNOWLEDGEMENTS AND DEDICATION

Kind thanks to my committee and to their support staff for having facilitated the thesis process.

This work is dedicated to Mimi – to our recent publicly closed private partnership.

I understand this concern on behalf of the tax-payers. People want value for money and a cost-effective service.

Capital asset management framework in Terry Gilliam's *Brazil*

Habit is a great deadener.

On assessment practice in Samuel Beckett's *Waiting for Godot*

2 + 2 = 5

Risk transfer objectified in George Orwell's *1984*

Introduction

Analyzing the will to P3

If *public-private partnerships* (P3s) mean much beyond a re-branding of *alternate service delivery* (ASD), then it is most significantly the addition of private financing, the *private financing initiative* (PFI), that differentiates P3s from plausible non-P3 approaches. This paper considers *the will to P3* as it is revealed by the legal and financial transaction structures deployed for P3, and as it is implied by P3 *ex ante* comparative project assessment approaches. As to approach and layout, this paper's examination of the structuring in P3s of ASD procurement around PFI towards garnering firms a *tax shield*, the tax benefits of leveraging, is preceded by a critical genealogy of the P3 *value for money* (VfM) assessment.[i]

Methodology and Contributions

This paper's methodology and contributions are arguably novel. There is scant literature that considers the perspective of P3 practitioners of P3s being ASD structured around PFI, that analyzes the legal and financial deal structures of P3s as they are in practice, that stresses ASD as the plausible basecase to P3s, and that uses informed and objective materials to structure its methodology and inform its analysis. This gap in the literature will be discussed.

To begin, towards this paper's central thrust that the will to P3 is a tax shield, this paper analyzes models of real P3 deal structures, sourced largely from rating agency reports. The subjects of this analysis are especially the implications on risks bearing and taxation for firms arising from these deal structures. The theory of the firm's debt-versus-equity structuring in imperfect markets provides some theoretical backdrop to this analysis. This paper's primary and indeed novel contributions are as follows: First, models of real P3 deal structures in several recent P3s are contributed – including recent means for *liquidity support* and their ramifications

on risk bearing by firms or by governments. Second, the will to P3 as a tax shield is uncovered and analyzed, with various evidence given – including the value of debt written off against P3 margins (and resultant negligible tax rates) of a P3 in the Canadian Province of Ontario by a well-known engineering, procurement, and construction firm. Third, a foundation is laid for the informed analysis of P3s as they are in practice – especially from within financial economics.

Furthermore, this paper structures a critical genealogy of stated P3 assessment practice on the foundations of cost-benefit analysis, and further informs it by real P3 deal structures. Contributions arising are as follows. First, the implications on P3 risk transfer of P3 assessment practice using the implausible basecase of pure public provision, instead of simply a non-P3-financed option. Second, P3 risk transfer is shown not to be the subject of analytical valuation, but instead that of a 'rule of thumb' by which the net present value of an already implausible non-P3 option is topped up to render unimportant issues such as the discount rate. Third, a further foundation is laid for the rejection of the analytical soundness of VfM assessments based on invalidating specific cost items as a result of the implications of real P3 deal structures on risk-bearing and taxation. These contributions will perhaps serve to re-focus P3 criticism from technical issues within mock P3 assessment to refuting the assessment framework itself – if not simply to directing criticism to the underlying tax avoidance motivation of P3s.

To continue on methodology and contributions, an array of high-profile academic literature on P3s and selected technical applications of economic theory to P3s are assessed in light of real P3 deal structures and of what P3 VfM assessment is in practice. The primary contribution here is to establish a gap between the real and the various academic considerations of P3s – unsupported by P3s in practice are especially the notions of P3s unburdening public debt or of any P3 risk transfer incremental to well-bargained for and well-asserted ASD contracts.

Constructively, recommendations are made for the application of financial economics to P3s – with specific issues being a recognition of real P3 deal structures, the valuation of the P3 tax shield, and the ramifications on the incidence of risk of various means for liquidity support.

Finally on methodology, high-profile criticisms of P3 VfM assessments are criticized in light of real P3 deal structures and of what P3 VfM assessment is in practice. Critics are shown to ironically implicitly make the case for P3s by assuming sincerity in VfM assessment practice – fixating on discount rates, not demanding a non-P3-financed option as plausible basecase, and accepting incremental risk transfer despite the implications of real P3 deal structures. This paper's contributions might re-focus P3 criticism from irrelevant technical issues in their mock VfM assessments to refuting the VfM assessment framework itself – if not to raising awareness of the will to P3s being a tax shield.

This paper is structured into two parts. Part one analyzes P3 comparative assessment practice – including the critical genealogy of VfM assessments, criticisms of criticisms of P3 VfM assessments, and other related issues. The analytical backdrop used towards establishing whether VfM assessments merit serious consideration is the tenets for economic evaluation of cost-benefit analysis. Part two models and analyzes P3 deal structures as they are in practice – including implications on use of debt, on taxes, on liabilities and risk-bearing, on resultant borrowing costs and on the true incidence of risks. The analytical backdrop is the economic theory of a firm's debt-versus-equity structuring markets made imperfect by taxes and financial distress costs. This paper's various theses are corroborated using the analyzed deal structures of recent Canadian P3s and with practitioners' considerations of P3 – credit rating agency reports, public sector accounting guidelines, construction contract law, firm financial statements, P3 procurement documents, reports by designers of P3 deal structures. Academic literature on P3s,

high-profile P3 criticism, and P3 advocacy are handled in the Introduction as a means to situate this paper, and as issues arise in the analysis. Their relationship to implications and motivations of real P3 deal structures are assessed with a view to allowing P3s as they are in practice to impinge on both academic writing on P3s and criticisms of P3s.

Scope – P3s are largely ASD plus PFI

This paper's consideration of P3s to be largely ASD plus PFI is informed by those who work with P3s in practice. Those who rate, advise on, or manage public procurement processes – credit rating agencies, financial services consultants, construction contract lawyers, accountancy standards, debt management specialists at ministries of finance, project managers at ministries of transport, etc – hold P3s to be ASD contracts being structured around PFI financing.

Certainly, P3 advocates, the P3 antagonized, and academics think differently about what P3s mean. Promotional aims see P3 advocates brand most any private sector involvement as a partnership in order to minimize criticism – not from those who are critical about P3s, but those who confound P3s with privatization. Academics mould P3s to mean what they need P3s to mean – and this largely to support further applications of theories or fields of study.

This paper views P3s as they are viewed by the least biased of P3 practitioners – not by P3 theorists, and certainly not by P3 advocates or those antagonized by P3 – and these hold P3s to be essentially ASD structured around PFI financing. For simplicity, this paper uses PFI as a placeholder for P3's private financing since P3s began in the UK as the *Private Financing Initiative*. Likewise, this paper uses ASD as a placeholder for the various names of the most plausible non-P3 financed option for capital projects procurement of private sector implementations. ASD is therefore the contracting out – ideally with well-bargained for and well-asserted clauses for risk transfer – of design, build, operations, and maintenance functions

to private sector parties. Indeed, confronted by this paper is the myth of the instrumentality of risk transfer to P3s – of risk transfer having any causal relationship to PFI beyond PFI being a vehicle for further after-tax profits, or of risk transfer not already being achievable through ASD.

Scope – How is ASD structured around PFI in P3s?

In brief, a P3 sees P3 project companies, formed by engineering, construction, and procurement (EPC) firms and operations and maintenance (O&M) firms, borrow from capital markets for their profits and project costs – debt whose servicing flows from government payments or leases as P3 fees. As to debt management, both P3s and ASD are ultimately financed through government revenues and debt issues. The interest rates markets charge are reflective of the time value of money, plus a premium for the perceived default risk – a premium well tempered by a government's stability, taxation powers, and other revenues sources.

Scope – ASD as sole plausible alternative for capital projects procurement

And yet, what is ASD? One official description of ASD is that:

> Alternate service delivery … is an improved process for governance and the delivery of public services and infrastructure, by sharing with not-for-profit and other public and private sector entities … ASD is about a fundamental change in the definition of the role of government, from a provider to a manager of public services and infrastructure … Operating structures can be partnerships between ministries, or government-owned not-for-profit agencies or for-profit corporations … Other common structures include the participation of third-party for-profit organizations.[ii]

However broad the above may be, what are most crucially of interest are "Other common structures [of] the participation of third-party for-profit organizations" in the delivery of public infrastructure and service projects, large capital projects, or simply public works. This paper considers ASD to be the contracting out to (or procurement from) private firms of the delivery of public works – whether that be for design, build, operations, maintenance, or any combination.

Ownership of the underlying asset or of its related service provision does not matter from the perspective of efficiency of the theoretical realm of *complete contracting*. There, by definition, contracts can be negotiated for any of the parties to cover any contingency. There, neither monolithic asset ownership, nor ASD, nor full privatization yields more efficient outcomes. However imperfect the complete contracting realm in practice, this paper's bias is that there is a valid (efficient and just) role for the private sector in the provision of public works. The premise underlying this paper is not that ASD is here to stay, but that ASD has long been here to stay.

The validity of ASD is challenged when the complete contracting realm that underpins it for the abatement of risks fails such that risks remain incident with the citizen-taxpayer through governments as their representatives. Consider government bargaining power crippled by political ideology, graft, influence peddling, etc – agency costs. Government responsibility for the provision of public works limits the possible extent of the complete contracting realm, although this is not a failure *per se*. Consider the immutable government responsibility for the continued provision of public works in the face of the uncertainties of *force majeur*. There, risks with limited means for abatement remain incident with governments. Moreover, public infrastructure and services embrace the characteristics of *public goods* and *natural monopolies*. The market failures that their private provision gives rise to are the reasons for the commissioning of public works by governments and for the regulation of private aspects of their provisioning. The validity of ASD is likewise challenged when equity motivations see redistributional goals better achieved through public provision. Further validating the use of ASD is beyond this paper's scope.

Large capital projects can be generalized to comprise DBOM as undertaken by EPC and O&M firms. If it is admitted that governments procured DBOM (or at least DB) from the private

sector long before P3s, then ASD as is hardly alternative. Otherwise, it is believed that governments staff themselves so completely so as to monolithically undertake all of the DBOM – as is implied by much writing on P3s. This paper's stance is that the latter position no longer prevails, and that procurement from the private sector characterizes contemporary public works. Instead of P3s being a mere euphonic rebaptization of ASD, P3s are PFI+ASD – FDBOM, as financing plus DBOM.[iii]

Construction contracting forms the legal core of ASD infrastructure projects. As outlined later in this thesis, construction contract law offers the legal means for risk abatement and understands the strategies of each of the involved parties towards their interests. This, in practice, means not risk transfer to firms, but risk avoidance by firms – through pushing back risks to governments or flowing them downwards to subcontractors. Nevertheless, fixed-price contracts, fixed-term contracts, completion bonds, performance adjustments, step-in rights, and termination sums have long been some of the key tools used to procure projects – at the core of which is engaging general contractors to take on projects and to subcontract tasks. Market power and political ideology undermines the extent to which governments can successfully bargain for and later assert risk transfer. Indeed, the context of imperfect markets underwrites the realization of the will to P3.

Scope – But what of bundling?

But what is to be made of academic suggestions that P3s bring not only PFI to ASD, but also some greater degree of bundling? P3 certainly suggest the notion of the bundling over longer-term contracts of the various project aspects of design, construction, operations, and management. However, as substantiated by rating agency considerations of the role of long-term, stable offtake agreements with governments, this paper considers long-term contracts in

P3s to be simply a requirement for PFI – not any characteristic alongside PFI. In general, this paper considers general construction contractors to have long undertaken the bulk of the bundling function by definition. Moreover, the turn-key nature of large infrastructure or service projects sees the significant project management rolls of planning, estimation, and cost containment undertaken by private sector partners – who pass them on to government through the tendering and implementation phases. This speaks against academic notions of public servants having any continued significant rolls within project management beyond establishing requirements and then being necessarily links in procurement and reporting chains. Finally, if bundling was the incremental result of P3s, then one would expect its benefits to be capitalized upon – to be monetized in P3 comparative project assessment practice by P3 advocates. It is not.

The role of general contractors in ASD procured projects for large capital infrastructure takes on, by definition, the role of managing, directly or through subcontracting, various design, construction, or maintenance tasks – in other words, bundling. Governments initiate such projects by engaging project principals for the varied expertise required on such projects – from external financial advisors through the technical expertise of architects and designers, general (or lead, main, or prime) contractor EPC firms, O&M firms (often one and the same), etc. The function of governments within the implementation of such projects is ultimately to marshal the process – that is, to perform a high-level coordinating role. Project oversight through the government's inclusion in high-level proceedings is part of its governance and accountability responsibilities, which, while interesting, are beyond the scope of this paper.[iv]

Of course, P3s may or may not bundle design-build (DB) with operate-maintain (OM) tasks. Howerver, if P3 mean anything other than simply the private sector's undertaking of DB, OM, or DBOM, then it is the inclusion of PFI financing as FDB, FOM, or FDBOM that sets the notion

of a P3 apart from simply being a new monicker for ASD. Bundling is not particular to P3 unless P3s are any ASD project that sees a main contractor subcontract project tasks. Although it is further beyond the scope of this paper, if P3s are held to introduce any bundling, questions similar to those asked by this paper on P3's introduction of PFI could be asked: Why was it introduced? In whose interest is it? If bundling is considered not to have occurred by general contractors in ASD, why can contracts for bundling be written more efficiently by such parties in P3s than they can by governments? What are its repercussions on the public purse? If there are benefits, are they attributable to purported P3 bundling? Was P3's PFI financing required to achieve bundling? Or was bundling a precondition for PFI financing?

As such, while P3s, in theory, may be considered by academics to be ASD plus PFI plus bundling, this paper underscores a focus on P3s, in practice, by considering them as largely ASD plus PFI – as do the more informed and more unbiased of practitioners in industry and government (however small their numbers or muted their output). As such, the motivations for and incremental repercussions of PFI+ASD over ASD and the legal and financial structures required for P3s are the scope of this paper – not those of any bundling.

Context – imperfect markets, oligopoly power, political ideology

The perfectly competitive market is the touchstone of economists interested in industrial organization. Indeed, the context for P3s is the lack of perfectly competitive markets for the provision of public capital infrastructure. Reasons for this are many-fold. One is oligopoly power among construction firms, which achieve economies of scale and may collude to divide markets. Another is that political ideologies may have implicit policies that favour one sector of the economy over the other. Indeed agency costs reflect themselves in undermined government bargaining power – undermined by political ideology or simply crippled by bureaucracy. This

paper takes these contributing factors as given. Results from imperfect markets are what economists refer to as rent extraction, or simply profit-making – with extra-normal profits being made when markets are particularly aggravated.

However academic the point is, P3s would not exist in perfectly competitive markets, since neither market power nor political ideology would allow any bottom line-augmenting overtures to firms, such as P3s are. Nor, however, would P3s exist in markets far more imperfect than they, since there inordinate market power and politically feasibility would make possible more direct forms of rent extraction. In that sense, while P3s have been sketched to lie somewhere in the middle on the continuum between purely private and purely public provision, might be more informative to consider the existence of P3s to document the current state of competitive markets for public capital projects procurement. In that sense, the shift from ASD to ASD plus PFI – or to P3s – represents a further shift towards imperfect markets.

Context – the understated supply-side driver of P3's PFI component

This paper addresses the specific means for rent extraction within imperfect markets that P3s as ASD plus PFI have been designed for – that of a debt interest tax shield. The tax benefits of structuring a firm's financing around debt – the classic tax shield benefits of leveraging – is a key tenet of corporate finance in real markets (taxes, asymmetric information, costs of financial distress, etc). That they form a motivation for PFI has been largely ignored in the P3 debate – and not without reason, since it is the firm, not the public purse that benefits.

But what are the supply and demand drivers of P3s? A very brief historical overview of the motivations for and introduction of P3s will further grounds the particular interest of this paper in the tax shield. In short, P3s were designed and marketed as a win-win solution for the needs

of both firms (higher after-tax profits) and politicians (the appearance of debt not increasing despite new capital investments). Supply for P3s met demand in this win-win situation.

This paper focuses overwhelmingly on that long-missing (or long-muted) discussion of the supply-side story of P3s – of why firms would want to structure ASD procurement contracts around PFI. The demand side for P3s comprises their various apparent public merits that P3 advocates and some academics advance. The supply-side drivers for P3s over ASD are the particular benefits for firms realized through PFI. Structuring ASD construction contracts around PFI to form P3s garners bottom line-augmenting tax benefits to firms through the ability to write off interest on debt servicing – the classic tax shield benefits of leveraging.

On the demand-side, the lease-back arrangements of early P3s allowed project debt to be booked by governments not as debt liabilities but as operating expenses. This was off-balance sheet treatment of P3 debt so as to meet the debt management needs of politicians while not interfering with those for capital projects procurement. Again, supply met demand with the win-win solution of tax benefits to firms and off-balance sheet treatment for government investment in new infrastructure. Peripherally, although not insignificantly, the addition of PFI brings additional opportunities for profits to the financial services industry – P3 transaction costs.

The postscript is that public sector accounting standards now recognize the preponderance of risk for capital assets being incident on governments. Although the end of off-balance sheet treatment for P3 debt has not affected the tax shield benefit to firms, it has required a shift in politicians justifications for P3s. As such, the notion of P3s offering risk transfer incremental to ASD has arisen as the prime justification to the public for P3s. Nevertheless, the context for P3s is a particular increment to the state of market imperfection. Correspondingly, the P3 tax shield is the P3-realized increment to rent extraction. It is the primary supply-side driver for P3s; it motivates firms to structure their ASD contracts around PFI; it is central to the will to P3.

Part One: A genealogy of P3 assessment practice

This paper analyses the will to P3 as it is implied by P3 *ex ante* comparative project assessment approaches and revealed by the legal and financial transaction structures deployed for PFI. The first part of this paper is a critical genealogy of VfM assessment practice – including examples from the United Kingdom (UK) and from the Canadian Province of British Columbia (BC). Owing to an implausible basecase of pure public provision, to implying that the risk of construction cost overruns could not be controlled in ASD, and to casting mere transfers as impacting net social surplus, there is little value for money in VfM assessments of P3s. Attempts by P3 opponents to discredit VfM assessments by questioning not their content, but by quibbling over discount rates and cost item magnitudes through sensitivity analysis, gives credence to the incredible – as has tragically been the case, the paper outlines, with recent criticisms of P3s.

Part Two: A deconstruction of P3 legal and financial deal structures

The second part of the paper deconstructs the *project finance* or *nonrecourse finance* (NRF) deal structures used in P3s for PFI. The *limited liability* and *limited partnership* legal forms used in NRF have different permeabilities of corporate asset risk exposure and tax benefit flow such that debt confers a tax shield to firms. In what forms the will to P3, firms garner a tax shield without having to face the trade-off between corporate asset risk exposure and borrowing costs, since the latter are passed on to governments in the P3 fees of long-term offtake agreements.

Academic contributions to the P3 discourse

"Western industrialized nations have almost thirty years of experience with public-private partnerships." Linder and Vaillancourt Rosenau's opening introductory remark in *Public-Private Policy Partnerships* (2000) obscures the fact that those years of experience have been with ASD. With the exception of the newcomer of PFI financing, P3s are essentially ASD. Referring to private sector involvement as a P3 is more an effort to re-brand ASD or euphemize contracting out – pandering to the privatization debate, which is beyond this paper's scope.[v]

This paper differentiates itself from academic literature on P3s in a number of ways: First, little attention is paid to the acronymic administrivia of P3s, to the jargon of procurement or administrative processes therein. Instead, the incremental effects of P3's PFI financing is focussed on. Second, popular P3 platitudes are subject to thorough analysis. The most popular platitude, that P3s are instrumental to risk transfer, is examined in light of the real financial and legal deal structures used for P3s – and also, however briefly, in the theoretical light of *incomplete contracting* in order to underscore where risks are ultimately incident. Third, taking a page from accountancy considerations of P3s, the substantive rather than formal, aspects of P3 procurement are addressed. The latter view fuels myths such as those that P3 leases result in ownership transfer or that P3s yield risk transfer relative to well-asserted ASD contracts. Fourth, by positing ASD as the most plausible basecase procurement scenario against which P3s as PFI+ASD ought to be compared, this paper focuses on PFI as the incremental difference. Fifth, recognizing that P3s are more about communications than they are about economics, this paper critiques stated P3 assessment approaches – again against the ramifications of real P3 legal and financial deal structures. Sixth, the will to P3 is explored through an analysis of the legal and financial deal structures specifically deployed for P3s.

Pro-P3 chorus…

Academic voices in the pro-P3 chorus aim to add analytical austerity to the celebratory consensus between P3 promoting groups, anti-tax factions, and right-of-centre think tanks. Consider Linder and Vaillancourt Rosenau's *Public-Private Policy Partnerships* (2000), Grimsey and Lewis' *The Economics of Public Private Partnerships* (2005), or "The Economics of Public-Private Partnerships" (2004) by De Bettignies and Ross in *Canadian Public Policy*. However, neither of these two volumes of academic papers nor this recent high profile article address the NRF deal structures of P3s, their implication of limited risk transfer, their resultant culpability for higher P3 borrowing costs, and their deployment towards a tax shield for EPC and O&M firms.

When pro-P3 academic papers do admit to the private sector's higher relative cost of borrowing, inventive explanations result. Applying induction to the following from De Bettignies and Ross (2004) suggests disturbing policy. Here, government preference for P3s would imply a preference for financing the default risks of selected private firms.

> [W]e note that a comparison between the borrowing rates charged to governments and to private partners is not necessarily comparing apples with apples, as the private borrower is acquiring a put option with its loan and this must cost it something. To see this, assume that because of its very low probability of bankruptcy, the government can borrow at the risk-free rate of interest, say this is 5 percent over 20 years. If a private borrower had an equally low probability of bankruptcy it would also be able to borrow at 5 percent, but in fact over the course of 20 years there is a not-insignificant chance it will be unable to meet its debt obligations. Thus, a loan contract with this private borrower, say at 7 percent, is actually a combination of a loan plus an option to "put " the remaining portion of the debt back to the original lender. … The important observation here is that the government does not get this put option when it pays 5 percent, it must repay the loan in full, no matter what. This is not to say that the cost of borrowing has to be identical when we take the put option into account, it is just to point out that the listed rate exaggerates the difference.[vi]

Of course, while it may be economically true to suggest that the government has bought itself an option to rescind the construction of essential capital infrastructure, realistically this is not so – and rating agencies will have no part in it. As such, the government has been convinced to buy a put option that it will never use. This suggestion exists only in the minds of those looking to

justify higher P3 borrowing costs – or simply as paper-generating devices for academics looking to make their mark on P3s. The rating differential – P3 endogenous risk – reflects the lenders relative trust of the debt servicing capability of governments versus P3 project companies.

Having anticipated questions about PFI being largely the sole incremental difference to ASD as the baseline procurement option, academic pro-P3 literature has recently begun to suggest that financing and construction are complementary – that they should be seen as bundled.

> It is very likely that there will be important complementarities associated with combining the financing task with the construction and possibly also the operation/maintenance task.[vii]

With the above, De Bettignies and Ross (2004) evidently disregard real P3 deal structures. There, for construction and engineering tasks, a limited liability P3 *project company* (or P3 *concessionaire*) sub-contracts the very EPC firms that spawned it. By definition, an EPC firm is a general contractor – which has long performed bundling and subcontracting. If financing and construction were complementary, capital markets would reward this with lower borrowing rates. They do not. Instead, because lenders have limited recourse to corporate assets, the P3 financing process is fraught with insistence on debt servicing guarantees – be they from EPC and O&M firms, via insurers, or extracted from commissioning governments. What rating agencies consider complementary to financing is simply positive credit characteristics – at the centre of which is government ability and liability.

…procurement process administration…

The neutral academic ground on P3s is that pertaining to procurement processes administration. It is typified by incantations that risk ought to be transferred to the party best poised to manage them, but does not – unlike the work of construction contract lawyers – illuminate the relative interests and bargaining powers of firms (and their impact on the ultimate incidence of risks). There, the dominant risk management strategy is that pushing back risks to

government or flowing risks downwards to subcontractors. One notable example not dealt with by papers purporting to reveal the mysteries of risk transfer is the push-back of inflation risk to governments, which undermines incentives to timely completion. Another is the passing on to governments of the insurance costs used to raise P3 debt ratings for appeal to institutional lenders (discussed at length later in this paper). Instead, the basics of the administration of a risk management framework are laid out (planning, risk identification, noting of expected impacts, logging in risk registry, review of risk assignments, monitoring). While these efforts have value in their capturing public administration work, they do not (and, to be fair, do not aim to) address a P3s relative assessment – let alone capture factors pertinent to the will to P3. No mysteries are revealed – certainly not of risk transfer. However, necessary administrative processes are outlined.

…muted scepticism…

The muted scepticism of P3s that does emanate analytically from academia (when P3s are not used as a vehicle to discuss an author's particular model or theory of bargaining, contracting, discount rates, etc) tends to address not the supply-side of motivators of P3s, but simply the demand-side. The reasons why firms would want to structure ASD contracts around PFI are not analyzed. Instead, as though there is a pull for P3s from governments that is not a push from firms, the purported benefits to governments from P3s form the explanations for P3s. Vining (2005) is no different in that regard. Consider there a government's "desire" for P3s.

> At the heart of the partnership approach is governments' desire to bring private money and management to public-service provision. The reasons for involving private capital are clear enough. The process provides new money, managerial skill, access to innovative technology and novel approaches to service delivery. What is probably most important is that when private agents pledge their own resources, they have a strong incentive to closely monitor project management to ensure the best possible overall financial return on their investment.[viii]

Note in "new money" and "own resources" the flawed implication that public funds, through P3 fees, do not actually underwrite such projects (as they always have) – as though (instead of only subordinated debt but actual government equity) there is any actual equity staked by private partners. The words "innovation" and "novel" imply that it was not the private sector that would normally undertake the work – as though credit rating agencies do not applaud the generally non-novel, non-innovative, and therefore non-risky approaches use in recent transportation project P3s. Note finally the notion that public servants – and not EPC and O&M firms – do actual cost-containing project management work, instead of merely functioning as links in the project reporting chain. Vining (2005) does, however, conclude with thoughts on the issue of a government's successful bargaining, and assertion, of contracts that make risks contractually transferred truly incident on the private sector. However, the purported link between a P3's PFI financing and the bargaining for (and asserting of) ASD construction contract clauses for risk abatement are left unchallenged.

...or P3 discord

The P3 discord harmonizes with the pro-P3 chorus in inadequately recognizing real P3 deal structures, in not considering what P3s are incrementally responsible for, and in denying ASD as the sole plausible baseline procurement option for public works. Overwhelmingly, many P3 opponents believe their focus to be on P3s when in fact their arguments target ASD as private sector procurement or outright privatization – neither of which are debatable or debated in the P3 debate of ASD versus PFI+ASD.

Arguing ineffectively against P3s are union research branches, alternative policy think tanks, and academics either insufficiently analytically grounded or interested. Without grounding in CBA, magnitudes of cost items in VfM assessments are disputed, when in fact their founding

should be refuted. Without delving into the NRF deal structure of P3s and recognizing their incomplete contracting realms, the myth of risk transfer cannot be disputed effectively. Nor without considering substantive accounting treatments of P3 leases can the illusion of off-balance sheet debt be left for what it is – a short-lived illusion of not increasing debt while taking on liabilities.

Take for example this – the criticism in Cohn (2002) of risk transfer. The approach there lacks grounding in principal-agent contracts, in differing profiles of risk aversion, and in the resultant certainty equivalents some parties would be willing to pay others to insure their risks. In suggesting that the purportedly efficient transfer of risks forms a "self-balancing equation," Cohn (2002) raises the card-house of risk transfer to the proportions of a pyramid scheme.

> [Monetized risks] form an equation that tends to self-balance over the long-run … [A] state can transfer a specific risk, associated with a specific project, to a specific partner or set of partners. From the point of view of these partners, these are genuine risks and they, therefore, demand a reward for assuming them. However, the state will have to assume an equivalently valued risk of a different sort, either in the specific contract in question or in some future one. Even though the state is paying a risk premium to private investors in each contract, in the long-run it will end up holding risks of exactly the same monetary value as it began with, but will be out of pocket for the transaction costs and the premiums. The only way this equation will not self-balance is if one assumes the state can line up an infinite string of suckers to act as counter parties.[ix]

The above evidences that at the end of the P3 debate weak intellectual structure is matched against itself. Heroic myths about P3s and risk transfer are equalled by dystopian tragedies.

Whither the economics of P3s?

With P3s applying largely to the realization of public works, one would think that the literature on P3s "straddles the economics-engineering divide," as Grimsey and Lewis (2005) state in their introduction to *The Economics of Public Private Partnerships*. Certainly, engineering services are still the arguably appropriate core of what is contracted out in P3s.

Ironically, economics is kept appropriately far from the discourse around the will to P3 because of its abstractions from practical detail.[x]

Since P3 practice arguably leads sincerely stated P3 policy, P3s are paradoxically on the one hand desperate for policy enlightenment, but on the other hand desperate for policy obfuscation. Given their polarization of thought on P3s into the irreconcilable reaches of a continuum of perspectives, economics seem to have a natural role to play in the analytical middle ground.[xi]

Disappointingly, the advisory role of economics in P3s is ironically marginal. P3s are about market power and political pressure, billable consulting hours and financing fees, endless accountancy detail and legally limited liabilities, and strategic communications or public relations. Having much to say about the effects of taxes, economics contributes little as to how to avoid paying them. Institutional economics is denigrated by mainstream economics even though central to the will to P3 are the influences of the powers that be. As has been discussed, the context of P3s is imperfect markets – specifically, the power field of P3s is that between leaders of EPC firms and P3-willing politicians. What further undermines contributions from economics in the decision-making process is the tendency of economists to supercilious devil's advocacy. In P3s, owing to the billable hours possible, ample advocates abound.[xii]

Approach and thesis statements

This paper's inquiry into the will to P3 is nevertheless informed and structured by the economic approach – by its rigorous analysis, crisp modelling, scepticism of denials of underlying trade-offs, reverence for incentive effects, aversion to taxes, and focus on the margin. As to the latter, while modelling the NRF deal structures used in P3s focuses attention on the incentives of PFI financial services profits and the construction of PFI tax shields, focussing on the differential of PFI bears insights into the will to P3.

Central to the analysis are not the idealized complete contracting realms used in much academic literature on privatization, but incomplete contracting. There, ownership does matter, for their *residual control rights* make as immutable the bearing of significant risks as they do the enjoyment of the rewards of *public works*. Residual control rights confer *risks*, *rewards*, and *responsibilities* (3Rs). The alliteration of the 3Rs is used because they reinforce the notion of the transaction or exchange at the heart of public ownership.

Is there value for money in value for money assessments of P3s?

P3 advocates suggest that P3 approaches are causal to the realization of various benefits over traditional public works procurement methods. P3s are typically compared against the artifice of a *public sector comparator* (PSC) representing monolithic public provision. The insistence on benefits of P3s over non-P3 approaches underscores the need to consider the incremental difference between plausible approaches – and the difference is overwhelmingly the addition of PFI financing. Of the benefits for which P3s are apparently instrumental, efficiency did reign, but instead of being posed in terms of increases to net social surpluses, or increased cost-effectiveness, what is used is notably an *ex post* notion of value for money. Claims of risk

transfer look to have the staying power. This is arguably the result of risk transfer seeming responsible, being intangible, and yet being subject to monetization.

This paper's first thesis pertains to P3 *ex ante* comparative project assessment practice. There is little value for money in VfM assessments of P3s. VfM assessment would ideally attempt to assess the net social surplus that results from a P3 approach versus a non-P3 financed approach. The *referent group* whose aggregate well being is of interest would be that of the citizenry at large. In practice, however, VfM assessments function not as detailed and diligent analysis but simply as P3 advocacy. However, if VfM assessments are taken seriously, their weakness lies in their insistence on an implausible basecase – of pure public provision instead of ASD. This forms the core of the strength of public relations of P3s.

Competitive neutrality – not a cost item, but a transfer

This paper's second thesis is that the VfM assessment PSC cost item of *competitive neutrality* does not represent a change in the net social surplus of the referent group, but is simply a transfer between referent group members. As such, the penalization of non-P3 approaches by competitive neutrality has no place in an efficiency-based analysis. The cost item is strangely present in VfM assessments of P3s against ASD, where the sole difference is largely the addition of PFI.

The wild goose chase for a singular discount rate

The third thesis this paper offers is that the quest for a singular discount rate for project options financed alternately by public or private debt is a wild goose chase. Even this formulation is misleading, for P3 projects are not solely privately financed. Instead they are financed first by private debt, and then by public debt. Nevertheless, sound *ex ante* comparative project assessments would undertake sensitivity analyses over a range of rates. The lower bound

would be the near risk-free rate offered debt servicing-capable, endeavour-diversified, and revenue-generating governments. The higher bound would be the higher rates that P3 project companies borrow at, with the market risk premium reflective of their incarnation under NRF as high debt to equity ratio, limited liability *special purpose vehicles* (SPVs).

The tragic flaw of reviews of VfM assessments by union-commissioned forensic accountants is the implicit acceptance of the VfM assessment framework and its cost items. To borrow from accounting and auditing terminology, this paper undertakes a *zero-base* critical review of VfM assessments. The validity of the cost items of competitive neutrality and risk transfer are scrutinized from the ground up. Nevertheless, however unintentionally, VfM assessments do bear insights into the implicit policy drivers, incentives, and motivations of P3s.

What risk transfer?

The second part of this paper is aimed at dispelling the myth that a P3's PFI component is instrumental to risk transfer incremental to its core ASD component, on the endogeneity of risk to P3s, and on the tax shield of PFI-incurred debt as the will to P3. A triangulation of insights from economics, accountancy, and construction contract law support a series of theses regarding risk transfer. Economics contributes the incomplete contracting realm of public works with its importance of property rights and immutability of residual control rights. Accountancy standards reject the transfer of any substantive ownership of assets through P3 leases. Construction contract law represents P3 party interests to avoid, push back, or devolve risks, and codifies the mechanisms for risk abatement.

The risk transfer mythology of P3s is confronted on three levels – transferable risks, non-transferable risks, and P3-endogenous risks. In incomplete contracting realms, residual control rights and their attendant 3Rs reside immutably with the owner being the government as

representatives of the citizenry. A mythical realm is entered once one insists on the formalities of P3 agreements instead of their substantive content. Considering the former, P3 mythology would have it that there is a full transfer of the 3Rs when public works are commissioned through P3s – and that a government retains neither residual control rights nor their attendant obligations. Debt rating agencies, accountancy standards, contract law, and well applied economic theory consider the latter. This paper's fourth thesis is that in the incomplete contracting realm of P3s, no incremental risk transfer is offered because residual control rights remain with governments. The caveat to this is that long-standard contracting measures to transfer transferable risks in underlying ASD contracts have been strongly negotiated and there is political will to assert them, a point which will be returned to in the conclusion of this paper.

Endogenous P3 risk

This paper's fifth thesis is that risk is endogenous to P3s. This thesis responds to applications of the capital assets pricing model (CAPM) that suggest that the government's lower relative cost of capital does not represent project risks. Analysis of the NRF deal structures of P3 support this thesis – one absent from compendia of academic literature on P3s. P3 project companies are created as *limited liability* companies with the expressed intention of ensuring that EPC and O&M firms are kept *bankruptcy remote* from the P3 venture. As follows, in the CAPM's consideration of a risk-free rate plus a market risk premium, the risk premium has less to do with project risks (either abated through complete contracting, or held immutably by governments), than with the default risk of the P3 project company.

Tax benefit transfer motivations

In the second half of this paper, the will to P3 is considered as it might unwittingly be suggested by the cost items of risk transfer and competitive neutrality in VfM assessments.

Although limited partnerships pass on only limited liability upwards to firms, they do pass on the full tax shield of having incurred debt, higher cost debt eventually incurred by citizen-taxpayers. As follows, the sixth thesis of this paper is that risk transfer can better be re-read as tax benefit transfer, although instead of the public benefiting from the former, firms benefit from the latter.

Monetized market power or political ideology

The seventh and final thesis of this paper is a somewhat quantitative Marxian re-reading of competitive neutrality. In what is reflective of the inevitability of P3s given market power and political ideology, competitive neutrality can be read as the shadow price implicitly charged as a political cost to governments by a non-competitive private sector for not having pursued P3-based procurement. That is, competitive neutrality can be read to quantify the marginal weight of dominant political ideology and market power. If naïve notions or strategic suggestions of there being competitive markets for engineering and construction services are finally dropped such that efficiency is no longer a *fait accompli*, are P3s a *fait accompli*? An inevitability? If so, then re-reading competitive neutrality as such monetizes this new institutional reality, which ties back to the context for P3s being imperfect markets.

Part I

Ex ante comparative project assessment

One obvious area for a contribution from economics to the P3 discourse is that of *ex ante* comparative project assessment. If decision-makers based their "To P3 or not to P3" decisions on rigorous analysis, how might a project's relative impacts on a referent group be assessed? Are such methods used? In lieu of their use, what methods are used? What are their origins? How are they being applied? Are factors pertinent to the will to P3 nevertheless exposed by such methods – by their content, form, or even forum?

The costs and benefits of cost-benefit analysis

Certainly, cost-benefit analysis (CBA) would have provided a framework for the broad, explicit, and at least attempted commensurate consideration of criteria upon which project decisions hinge. Consider comments from Amartya Sen on CBA.

> Cost-benefit analysis is a general discipline, based on the use of some foundational principles, which are not altogether controversial, but have nevertheless considered plausibility. Divisiveness increases as various additional requirements [valuation entirely through an analogy with the market mechanism] are imposed.[xiii]

Indeed, ethical caveats regarding the use of CBA are as follows: Firstly, the flawed premise of CBA is to select the project option offering not the greatest *Pareto Improvement*, but rather the greatest *Potential Pareto Improvement* (PPI), which leaves the compensation of losers either a hypothetical question or a question of the whims of winners. Secondly, CBA in its most limited form is inconsiderate of a project's relative distributional impacts. Thirdly, since both willingness to pay and willingness to accept are functions of wealth, the attempts in more rigorous CBA to make commensurate the non-monetary costs and benefits of project options, while certainly technically complicated, are philosophically debatable. Nevertheless, given

CBA's completeness in explicitness and rigour in monetization, this paper considers it to represent best practice. Further concerns about it are beyond this paper's scope.

CBA attempts to make explicit what is at stake and how it is valued. CBA would render transparent the monetization of all foreseen costs and benefits to the referent group – that is, present values of the policy motivations and implications. CBA would discount from calculation the solely distributional issues and normative considerations – that is, those costs or benefits that are only transfers between referent group members. CBA would calculate and catalogue transfers towards policy transparency. When augmented with sensitivity analysis (including the discount rate), and when mindful of a project's relative distributional impacts, CBA provides the gold standard for objective comparative project assessment.[xiv]

Doctoring CBA or: How I learned to stop analyzing and love P3s

To P3 or not to P3. If that is the question, it is one that should be posed prior to a procurement decision. The question would have been answered integrally by CBA. And yet, despite the additional costs PFI brings to public works procurement, those who marshal P3 processes for governments suggest that CBA is too costly. Moreover, as though the scrutiny of complexity was not at the core of procurement, let alone accountability, CBA is also considered to be overly complex.[xv]

Comparative project assessment for P3 has little to do with analysis and much to do with communications. P3 procurement processes therefore employ VfM assessments. In its connoting an *ex post* notion of a project's net benefit rather than one *ex ante*, the presumption of the term "value for money" is well taken – from accountancy. In short, VfM assessments add extra costs on purportedly optimal options for non-P3 procurement – and therefore tip the scale

towards the P3 option. Since VfM assessments are communicated as though they informed P3 decision-making, what follows is a critical genealogy.

Is there value for money in value for money assessments of P3s?

The VfM assessment framework starts with a stack of discounted costs held to be representative of optimal and plausible provision under the baseline non-P3 approach. This is the PSC. The catch-phrase *life cycle costing* – simply the use of discounting – is currently being used to refer to long-standard approaches to project assessment, as though governments had no experience planning for and managing long-term liabilities. In fact, life cycle costing is currently being celebrated as uniquely the result of a P3 approach.

When (without loss of generality) project benefits are identical, the PSC is compared to the stack of discounted costs associated with the P3 project. The PSC option typically finds itself penalized by such cost items as transferable risk and comparative neutrality (and sometimes also innovation and efficiency). The difference in discounted costs is the net present value of the lower cost project option – its "value for money".[xvi]

VfM assessment (UK PFI's framework; 1999)

The genealogy of VfM assessment frameworks – and of P3s themselves as PFI – begins in the UK. The first general VfM assessment framework presented is from the UK's 1999 Treasury Taskforce Technical Note "How to construct a PSC". Although furthermore beyond the scope of this document, if P3s are on the decline, then that decline has certainly started in the UK – if for no other reason than that it has had the longest experience there.[xvii]

Constructing a PSC sees "Base Costing" incurred for the PSC option; the P3 option instead sees "Cost of Service Payments" incurred. This corresponds to the notion of "specifying outputs rather than inputs" espoused by privatization advocates to underscore their preference for

governments to simply commission public works, to define performance criteria, and to pay for them through service contracts. This framework shows the private sector's higher borrowing costs in that PFI "Cost of Service Payments" outstrips PSC "Base Costing".

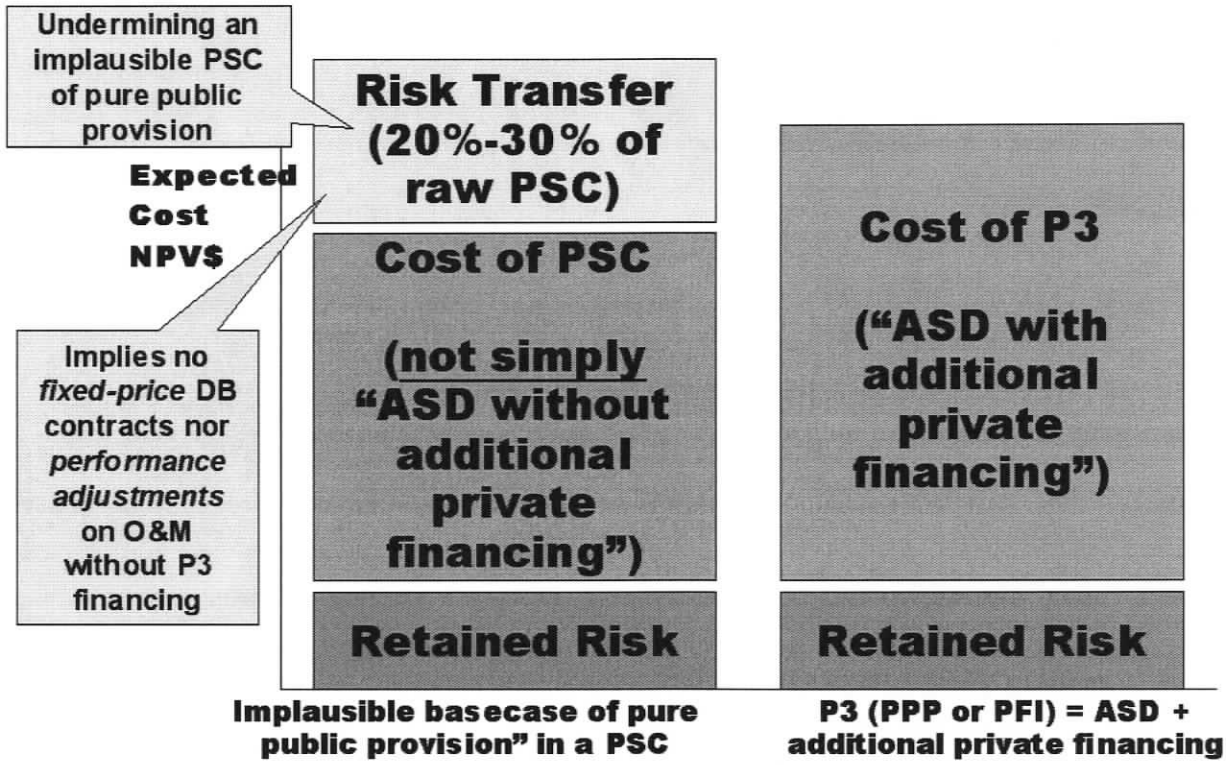

Figure 1 PSC and PFI in an early UK VfM assessment framework[xviii]

The story to emerge is that the P3 option results in a more cost-effective option as a result of risk transfer. Here, "Risk Adjustment" represents the costs of risks not transferred under a PSC option (regardless of its plausibly representing the most likely option to PFI+ASD). In contrast, "Retained Risks" represents risks not transferred at all. So begins the use of risk transfer as the card to trump the arguments of P3 opponents.[xix]

Subsequent audits of the UK's experience with PFI projects consider that "Risk Adjustment" is vastly overstated in VfM assessments – and yet, as is the case with auditor contributions elsewhere, the audits do not question the causality of PFI financing to transferred risks. The

overvaluation of risk transfer stemmed from statutory responsibilities (immutable government residual control rights and their 3Rs), successful risk avoidance (bargaining power), financial guarantees (as opposed to financial risk bearing), and subsequent government bail-outs of P3 project companies (whose limited liability protected assets of owner EPC and O&M firms). This paper will present evidence that the "Risk Adjustment" is not actually calculated with respect to the current project – let alone with respect to the instrumental role of PFI financing – but simply *guesstimated* from cost-overruns on past projects. The approach lives on.[xx]

VfM assessment (UK PPP LU framework; 2002)

A later submission from the UK for the London Underground (LU) also relies on risk transfer for the relative cost-effectiveness of the P3 approach. "Base Costs" of the PSC are topped up by "Risk Adjustments", by "Efficiency Adjustments", and by "Performance Adjustments". "Risk Adjustments" were made on the basis on input from workshops.

> At workshops held on 17th November 2000 and 12th November 2001, London Underground staff and their advisers reviewed the risks on an asset-by-asset basis. Consideration was given to:
>
> • The historical out-turn costs of 225 London Underground investment projects for the years 1996/7 to 1998/9, after excluding the effects of projects not similar to those within the PPP contract such as line extensions;
>
> • Evidence of cost over-runs in the wider construction industry.
>
> The cost overrun risk range was defined by the minimum, most likely, and maximum values. The average "most likely" Investment cost over-run was 17% with top and bottom values of 24% and 11% respectively.[xxi]

Their numbers of ~20% for purported risk transfer have had immense staying power. The topping-up of the PSC with ~20% of itself for risk transfer has been adopted wholesale in VfM assessments in other jurisdictions. To what extent were other confounding factors examined? Nevertheless, the use of such UK-based guesstimates of construction cost overruns has been wholeheartedly adopted in BC for a P3's supposed risk transfer benefits Abbotsford P3. Consider the adoption of guesstimates versus the assertion by P3-promoters there.

> We are using a risk transfer model that is so complex that only a few people in the province understand the ins and outs of it.[xxii]

Despite experience from earlier privatizations of other rail infrastructure and services in the UK, the "Performance Adjustments" suggest that a PPP option would deliver a greater level of performance, of social benefit. The PPP option would exceed performance targets; the PSC option would fail to reach them. In what is reminiscent of what was undertaken with the "Risk Adjustment", a comparison is made at the same performance level by disassembling PPP benefits into an additional social benefit (whose valuation methodology is left unstated) that reduces PPP costs and into a social "disbenefit" that penalizes the PSC.

> London Underground has sought to reflect these different levels of performance by adjusting both estimates by the social benefit/disbenefit of the higher/lower performance levels predicted relative to the targets. This has the effect in the financial analysis of increasing the value of the PSC by £1.4bn, representing the social cost of poor performance, and decreasing the value of the PPP bids by £0.8bn, representing the social benefit of good performance. This is generated from ongoing performance levels, timing differences in the delivery of upgrades and ability to maintain stations and facilities to the required standards. Applying this adjustment to the cost comparison results in a net movement of £2.1bn.[xxiii]

This VfM assessment framework introduces "Efficiency Adjustments" by which both options are adjusted to expectations of their relative abilities to improve on operational management.

> London Underground has considered how it could improve its performance in managing costs and risk over the 30 year period. This is reflected in the Efficiency adjustment. … Efficiencies cover a number of areas where improvement could be expected but the amount are estimated via an annual percentage reduction of the risk adjusted Base Costs.[xxiv]

But what of the difference in borrowing costs between governments and limited liability P3s companies? Inventing the notion of "stable funding" they "do not believe that the inclusion of the bond costs is appropriate."[xxv]

> [W]e do not believe that the inclusion of the bond costs is appropriate. Further, for the purposes of value for money, the source of funding should not be the relevant driver. If it is considered that stable funding could be provided then an appropriate comparator would be the traditionally funded PSC with the assumed efficiency included … One source of such stable funding could be a bond issue … Therefore, we do not consider the bond funded PSC to be a relevant comparator and instead we focus on a stable funded PSC option in its place.[xxvi]

The LU VfM assessment framework does admit there to be "Wider Issues" that inform the decision beyond what the "Financial Analysis" stacks up to be: Management autonomy, Capability of Bidders, Working relationships, Robustness of contracts, Flexibilities, Remedies, Risk allocation, Contract enforceability, Strategic issues, PPP contractual framework, Incentives in the performance specification, Long term partnership, Risk management. Whatever the case might have been, later government reviews of the LU PPP were less than enthusiastic. In support of this paper's concern that the PSC does not represent a plausible non-P3 option is the following submission by the UK Parliament Select Committee on Transport, Local Government and the Regions.

> It is a failure on the part of the Secretary of State that no appraisal has been undertaken as part of the decision-making process of the alternatives being put forward by TfL, which appear to this Committee to offer material and rapid benefits to the travelling public in London. The Secretary of State's evidence suggesting that Ernst and Young addressed this issue is mistaken.
>
> £100 million has been invested in developing and assessing the PPP contracts. After an exhausting four year process there are considerable vested interests in seeing the deal completed. However, the evidence we have taken to date shows that the basis on which the decision has been taken is flawed. The shifting sands of the rationale for, and the assessment of, the PPP have lead to a process that has lost all credibility in the eyes of the public and professionals in the field.[xxvii]

Nevertheless, what lives on from the VfM assessment for the LU P3 is primarily the "shifting sands of the rationale for, and the assessment of" P3s – especially the use of ~20% as a figure with which the PSC is additionally saddled. However, the comparison of PSC and P3 option at different benefit levels – comparing apples to oranges – has recently again seen application in the recent VfM assessment for the Sea-to-Sky P3 in BC.[xxviii]

Competitive Neutrality and its distributional motivations

Competitive neutrality appears an item in many current VfM assessments. Is it a cost or benefit, or does it represent a valuation of a transfer between referent group members? With it policy makers implore positive valuations of movements of social surplus to the private sector.

Does competitive neutrality, which evidently seeped up into contemporary VfM assessment practice from Australian P3 guidelines, need to be exorcised and sent back down under?

The distributional motivations of competitive neutrality are most clearly stated in the "Australian Government Competitive Neutrality Guidelines for Managers".

> The Australian Government … is committed to accountable and transparent administration [moral imperative?] and the efficient [efficiency imperative?] allocation and utilisation of public resources. One way to realise this commitment is to apply competitive neutrality (CN) policy to government business activities [so that they do] not enjoy a net competitive advantage over competitors by virtue of their public ownership …
>
> - [1]exemptions from taxes, for example income tax, payroll tax, land tax and stamp duty;
> - [2] cheaper debt financing, because governments may benefit from low-risk classification or implied or explicit government guarantees, leading to lower borrowing costs;
> - [3] the absence of any requirement to make a commercial rate of return (RoR) on assets; and
> - [4] exemptions from regulatory constraints or costs … planning and environmental regulation.[xxix]

Consider taxes, the first of government "advantages". Consider death and taxes. Those in P3s who cannot completely avoid taxes (firms) have seen to it that those who can (governments) are sentenced to the next best thing to death – castigation by competitive neutrality.

This paper had suggested that although VfM assessments of P3s cannot be taken seriously, their framework speaks multitudes about the will to P3. Certainly, the first of the "advantages" is founded in the anti-tax complaint. And yet, as this paper later reveals through an analysis of real P3 legal and financial deal structures, the tax shield yielded firms by PFI financing shows that the will to P3 stems from the depths of corporate tax despair, not that of citizens.

PFI's fatal flaw is made explicit by the second – cheaper debt financing. It is therefore absent from P3 discussions about competitive neutrality. When taken to the absurd, government purchasing managers would be reprimanded for procuring cheaper office supplies. The third issue raises the uncomfortable distributional issue of "a commercial rate of return" for whom? It is likewise absent from P3 discussions about competitive neutrality. Governments do not simply

have to make benefits as mere financial returns on their assets. With public works, governments aim to provide investor-users (current and future taxpayer-citizens) ideally cost-effective benefits, of which the benefits of usage figure centrally. As such, the very reason for government is reproached by competitive neutrality.

The fourth is an inconsequent suggestion that government endeavours are exempt to cost, process, regulatory, or other constraints. One anti-government hand criticizes the government's lengthy (and perhaps necessarily bureaucratic) processes of diligence as evidence of its inability to delivery services efficiently. The other hand suggests that that very same process does not exist, but rather that such processes more profoundly affect the private sector. Which one is it? Moreover, where regulation is taken as antidotes for the causes of market failure in market power, the fourth implies that such causes should not be mitigated.

Consider now selected policy justifications for competitive neutrality. What follows below debases the provision of public works (and, by extension, any appropriate regulation of the private sector therein) by portraying the business of governing as a "business activity" against which "business" is pitted.

> When you are conducting a government business activity and charging for a service or product, these advantages may translate into lower costs, and therefore lower prices. As a result, your business may operate with a cost advantage that is not available to private sector competitors.[xxx]

Competitive neutrality penalizes governments for their achievements of economies of scale in areas typified by natural monopolies and public goods. It suggests that were it not for governments, perfectly competitive markets would exist for public works.

> When assessing the value for money in the case of an in-house bid [the PSC], client teams must achieve competitive neutrality by ensuring that such issues as taxation, central office (client) subsidy of administrative costs, capital usage charges, and staff costing (including full pension and any redundancy liabilities) are dealt with fairly.[xxxi]

Competitive neutrality is overwhelmingly falsely premised because the most plausible alternative to P3 as PFI+ASD is not a monolithic "in house bid" for all of FDBOM, but rather an ASD of DBOM. The difference is overwhelmingly simply the financing. And yet, competitive neutrality bares the will to P3. Central to its terrain is imperfect markets – noncompetitive industrial organization and the ingrained institutional issues of the powers that be, both of which are there for the long-haul. Does competitive neutrality offer monetization of the cost of transgressing the political ideology and market power that render P3s an inevitability that has removed the question "to P3 or not to P3"?

The wild goose chase for the discount rate

Although it is an area seemingly deserving of attention, the hunt for an appropriate discount rate is a wild goose chase. Sound *ex ante* comparative assessments of P3s – that is, those utilizing a plausible baseline options of non-PFI financed ASD and those aware that real P3 legal and financial deal structures result in no risk transfer over that achievable through ASD – would apply sensitivity analysis over ranges of rates. And yet, although VfM assessments pose as comparative analysis, the question "To P3 or not to P3" was never seriously posed. Applying sensitivity analysis to either the cost items or discount rates in VfM assessments gives credence what is not credible – namely the risk transfer cost item that sandbags the PSC.

Harmartia in well intentioned, but uninformed P3 criticism

Where irony is speaking one thing, yet meaning another, dramatic (or tragic) irony occurs where dramatic personae realizes this unintentionally – which heightens their tragic plight. Shaffer (2006), while believing to criticize the VfM assessment of the Sea-to-Sky P3 in BC, tragically provides implicit supports for it inevitable pro-P3 conclusion. The *harmartia* (or tragic flaw) in Shaffer (2006) is that fixating on the technical minutia of what might be the

appropriate public sector discount rate gives credence to the structure of VfM assessments – risk transfer especially.

> [Shaffer (2006)] reviewed Partnership BC's recent value for money assessment of the Sea-to-Sky project. It specifically addressed the theoretical basis and practical implications of Partnership BC's assumption that the cost of government borrowing is the same as the weighted average cost of capital that the private consortium will incorporate into the annual lease fee that it will charge the government for the use of the highway. An alternative approach was presented to reflect more transparently the extra expected costs of the P3, and the critical value of the risk transfer – what the risk transfer would have to be worth to justify the private financing of the highway.[xxxii]

Risk transfer (of which there is none relative to the non-P3 financed option of ASD with fixed-term, fixed-cost construction contracts and performance adjustments) will always sway the numbers to favour the P3 option – regardless of discount rate. The use of the word "consortium" (instead of SPV or highly leveraged, limited liability P3 project company) suggests lack of consideration for the real P3 financial and legal deal structures based in NRF. Moreover, the alternate approach in Shaffer (2006) even explicitly accepts the centerpiece of pro-P3 arguments that P3s are instrumental to risk transfer over that brought by a well bargained for non-P3 financed approach. That approach simply uses separate discount rates for the P3 and the PSC – for the P3, the weighted average cost of capital; for the PSC, a public sector discount rate (PSDR) closer to government borrowing rates.

Moreover, the source of the premium on borrowing rates to NRF project companies is inadequately described in Shaffer (2006) – the lenders implore this, not the P3 project company.

> It is important to recognize that the 2.5% premium that the P3 [the P3 project company] will be paid [sic!] reflects the circumstances and costs it [the P3 project company] faces … contract risks (concerns about disputes with future governments)… In short, the 2.5% is the cost of the risk transfer under a P3.[xxxiii]

The premium on P3 lending represents the default risk faced by lenders lending to the highly leveraged, limited liability P3 project company – the P3 endogenous risk passed onto taxpayers through P3 fees. Lenders know that they have limited recourse to assets of the EPC and O&M

firms, and that despite government offtake agreements, the P3 project company can default more likely than governments would. Consider the failure of RailTrack (in the UK) to meet debt serving responsibilities. Also, it is not the risk to firms of disputes with future governments. The guesstimates of P3 risk transfer for the Sea-to-Sky P3 were ultimately based on cost and time overruns on pre-P3 London Underground work. These are risks that are assigned to the private sector not by PFI, but by bargaining for and asserting fixed-price and fixed-time contracts – unless, there is something in PFI that firms are interested in and have the bargaining power to assert exchange for writing such contracts. However, Shaffer (2006) does not suggest this – as this paper does in suggesting that firms can now demand PFI's debt interest tax shield in exchange for signing such contracts. Indeed, Shaffer (2006) is rather misleading in the suggestion that there is risk transfer relative to a non-P3 financed option.

To be fair, Shaffer (2006) does admit that risk transfer "has little to do with financing", that it "could be integrated with construction and transferred under design, build, operations contracts [DBOM, not FDBOM]", and that "risk transfer relative to what could be done under a PSC is modest." However, by concerning itself overwhelmingly with the discount rate, Shaffer (2006) inefficiently utilizes the talents and profile of its author – a better use of which would be to attack the myth of risk transfer at the core of VfM assessments.[xxxiv]

In general, P3 critics should avoid quibbling the over discount rates, recall what plausible alternatives to P3-financed options are, and inform themselves as to the implications of P3 NRF financial and legal deal structures. Quibbling over discount rates and over the magnitudes of cost items implicitly validates the structure of P3 VfM assessments – further occluding the fallacious basis for risk transfer (hand-me-down guestimates relative to pure public provision) and the tax shield that really is the will to P3.[xxxv]

CAPM and the endogenous risk of P3s

The CAPM is nearly canonical in the literature analysing interest rates – so too in critiques of the use of a lower PSDR for discounting cost and benefit streams for projects financed by government borrowing. The CAPM separates the pricing of risks in the returns demanded by investors from their demands for compensation for the costs of the time value of money. The CAPM's quantification of risks has inspired this paper's thesis that risks endogenous to P3 legal and financial transaction structures are ultimately incident on governments through their acceptance of higher P3 costs. Endogenous P3 risk reveals itself through the CAPM's deconstruction of higher interest rates on P3 bond issues than on government debt issues.

Out of WACC with government treasury borrowing powers

The confidant singular use in current VfM assessment practice of the *weighted average cost of capital* (WACC) for the discount rate is as misleading as it is misled. The domain of the WACC is interior to a firm – that of corporate finance, not that of NRF between firm and the limited liability project companies they might spawn. The WACC is one of several capital budgeting techniques used to discern the cost of capital to a leveraged firm. Frank (2002) is a particularly interesting paper on the WACC because it specifically considers the P3 context in its factoring in the P3 tax shield. The WACC can be formulated in a number of ways – including those that nod to the CAPM by unpack the costs of equity and debt into their component asset risk "betas". Below, the WACC is a function of the cost of debt (K_d), the rate of return required by providers of debt finance, the cost of equity (K_e), the rate of return required by equity investors, the gearing ratio (E/V and D/V, the ratios of equity and debt, respectively, to total capitalization), and the effective tax rate (T).

$$WACC = K_e \cdot (E/V) + K_d \cdot (D/V) \cdot (1 - T)$$

Although it factors in the debt tax shield that forms the core of the will to P3, using the WACC in VfM assessments suggests that private cost of capital is appropriate to the non-P3, solely publicly-financed option of ASD. And yet, the WACC is only an appropriate discount rate for a firm's own projects when project and firm have the same systemic risk, when the project's debt-versus-equity ratio equals that of the firm, and when project and firm have the same debt capacity. The debt-versus-equity ratios and debt capacities of P3 project companies are incomparable with the EPC and O&M firms that spawned them – let alone with government treasuries.

Keep in mind that with high leveraging, the WACC is overwhelmingly the cost of debt. However, by factoring in the tax shield the WACC is reduced – which is why P3 proponents claim that their VfM assessment discount rate is close to the public sector borrowing rate. The comparision between WACC and public sector borrowing rate is meaningless – especially when the former is reduced towards the latter because of a tax shield provided to the private sector at public cost. Constructively, a valid application of the WACC is in consideration of the value to the firm of P3's resultant tax shield – basic coursework in corporate finance. Overwhelmingly, though, the issue of which discount rate or rates is used to generate NPVs for either P3 or PSC costs does not matter. The P3 option in VfM assessments will always win out, but not because of the WACC – because of the PSC being additionally disadvantage by ~20% of raw PSC costs as purported risk transfer.

VfM assessment (PBC, PSC construction; 2002)

Partnerships British Columbia (PBC) is a crown corporation of the government of BC that promotes P3s and marshals P3 procurement processes. PBC does not itself have a VfM assessment practice, but rather VfM communications practice. PBC commissions financial

services firms to undertake VfM assessments whose frameworks are adopted wholesale from Australian VfM assessment frameworks – that is, early UK PFI VfM framework augmented with competitive neutrality.[xxxvi]

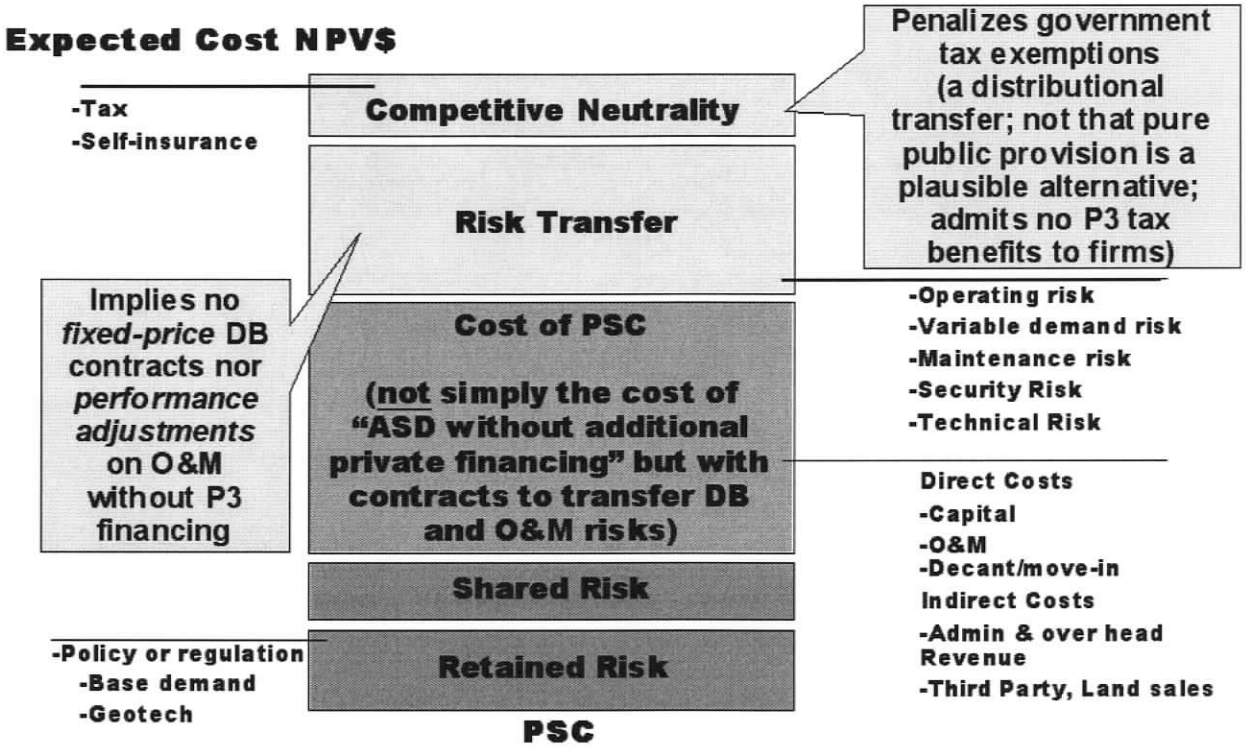

Figure 2 Stated PSC in contemporary VfM assessments[xxxvii]

Figure 2 is adopted from a PBC document on constructing a PSC. There, competitive neutrality's "Tax" (exemptions) and "Self-insurance" items are simply transfers associated with a preference to discount the risk pooling nature of government. As monetizations of pro-private sector distributional preferences they have no place in assessments of a project's relative social surplus. As to "Transferable Risk", part two of this paper shows that risk transfer incremental to ASD is anything but likely. Most of the risks listed above are often not even incident on private parties, but remain incident with governments. For example, recent P3s in BC assigns – directly

or by implication through higher P3 costs (associated with either borrowing rates or additional borrowing insurance) – volume risk, inflation risk, and lender default risk.

That "Transferable Risk" is portrayed as being greater than "Retained Risk" speaks contrary to assessments of P3s from the various vantage point considered by this paper. For example, public sector accounting practice considers P3 costs to be on-balance sheet precisely because the preponderance of risks fall incident on governments – be they those non-transferable, or simply those not transferred.[xxxviii]

VfM assessment (Forensic Audit of AHCC; 2002)

Consider the P3 for the "Abbotsford Regional Hospital and Cancer Centre (AHCC)". Although P3s add essentially only PFI to the *de facto* provision of public works through ASD, the BC Hospital Employees' Union (BC HEU) was concerned about the impacts on unionized employment of privately-operated hospitals. In 2002, despite appeals to the Canadian Freedom of Information Act, claims of commercial confidentiality prevented complete figures to be released to the BC HEU for a commissioned forensic audit of the P3.

> The reports [prepared by project consultants PriceWaterhouseCoopers] made available to us had been significantly edited by removal of all the numbers from the documents, which normally would make a meaningful financial analysis impossible. However, information was provided from an independent but unverified source that recreated these numbers. We used computer techniques to confirm the recreated numbers … have no reasons to suspect they are in error … [and] have used the recreated numbers as the basis for our review.[xxxix]

One challenge of Parks (2002) was to make the numbers work. Another was to undertake the sensitivity analysis lacking in the original VfM assessment. These two undertaken challenges in implicitly accept the flawed VfM assessment framework. The challenge not undertaken was to scrutinize the assessment methodology – to assess what the numbers purport to mean and if those meanings have validity as contributions to social surplus.

	PSC		P3	
Raw PSC Costs (FDBOM)				
NPV of Capital Costs (FDB)	156.80	-		
NPV of Hospital Services (O)	74.00	-		
NPV of Lifecycle Maintenance Costs (M)	8.50	-		
Raw PSC Costs		239.30	-	
Lease Costs PPP Tariff (FDBOM)	-			283.60
Transferable Risks (18% of Raw PSC)		42.90	-	
Competitive Neutrality		4.00	-	
Retained Risks:				
Capital risk during Concession Period	8.50		8.50	
Lifecycle after Concession Period	5.50		5.50	
Plant Maintenance Costs after É	18.60		18.60	
Total Retained Risks		32.60		32.60
Total NPV		**318.80**		**316.20**
Difference			**2.60**	

Figure 3 Forensic reconstruction of AHCC P3 VfM assessment ($m; 6% discounting)[xl]

While Parks (2002) laments the time-compromised "information gathering" and "incomplete analyses" that is felt to have contributed to the government's suspect assessment of the Abbotsford project, more data or more extensive sensitivity analysis would not have improved the quality of P3 project assessments. While more complete data as better ammunition would certainly improve the hunt for value for money, the hunt, even with sensitivity analysis as better aim, remains off target if guides or guidelines do not differentiate decoys from the real targets of social surplus. As with discount rates, the hunt remains a wild goose chase – and the goose a lark if the target was ultimately the maximization of other objective criteria (such as those stemming from ideology).

Parks (2002) considers neither the NRF deal structures used in P3s nor ASD as the de facto basecase procurement option. These have consequences for P3s yielding any incremental risk transfer and for the citizen-taxpayer's financing of the tax benefit transfer provided to EPC and O&M firms. Nor does Parks (2002) call into question competitive neutrality and its baseless position as an item impacting net social surplus – let alone that the opposite to a government's tax-preferential position is true in the form of a P3's tax relief to private firms. Nor does Parks (2002) consider accountants' own consideration of the preponderance of risk bearing as the determining factor for ownership – which would throw out the notion of transferable risks being greater than retained risks if the asset remains on the government's books, as the AHCC P3 does. By limiting the analysis to quibbling about the magnitudes of cost items and undertaking sensitivity analysis, Parks (2002) accepts not just the validity of the VfM assessment cost items, but also, implicitly, the sincerity of the VfM assessment framework. The efforts on information retrieval and reconstruction are admirable. However, forensic audit was dead on arrival.[xli]

VfM assessment (PBC's for AHCC; 2005)

Those agonized by P3s might be concerned that then-Auditor General (AG) of BC chose not to independently audit the decision to procure the AHCC via a P3. Instead, the then-AG reviewed aspects of presentation in PBC's "Project Report: Achieving Value for Money / Abbotsford Regional Hospital and Cancer Centre Project". To be fair, the then-AG has lamented the lack of support for his Ministry in general. The then-AG has also admitted that the key question (left untouched by VfM assessments or AG efforts) was the questionably instrumental role of a P3's PFI financing to secure risk transfer of construction risk that fixed-price, fixed-term ASD contracts had long achieved.[xlii]

> My work plan for 2004 included an intention to report on the Abbotsford Regional Hospital and Cancer Centre. My intent was to focus on the management practices used to ensure the project was delivered in a cost-effective manner [but not the P3 financing decision that undermine it]

> During discussions on the scope of my work, I found that Partnerships British Columbia planned to produce a comprehensive report on the … project up to the finalization of the Project Agreement. The scope of my planned approach would have duplicated much of the work carried out by Partnerships British Columbia in preparing its report. Therefore, I decided that my approach would shift from a direct report – where I issue a detailed report to legislators and the public – to an attestation report – where my opinion on management's written assertions would be attached to the Partnerships British Columbia report in the form of a Review Engagement Report.
>
> My work focussed on providing a review level of assurance [which] required Partnerships British Columbia management to provide my staff with sufficient appropriate evidence to support the key assertions made in its report [but not figures; only presentation, not content was reviewed]…
>
> When those who manage a significant government initiative report directly on their performance, the result is better accountability …. Including independent assurance that the reporting fairly presents the results. I appreciate Partnerships British Columbia's willingness to engage in this *leading-edge practice* [emphasis added] of having its Report reviewed by my Office. This is a *step forward* [emphasis added] in improving the openness, transparency and timeline of reporting …
>
> Yours truly,
>
> [signed
>
> Wayne Strelioff, FCA
>
> Auditor General

Figure 4 Auditing not the AHCC P3 VfM assessment, but its presentation[xliii]

No audit of cost-effectiveness was done – let alone one that scrutinized the notion of risk transfer being the incremental result of the P3's PFI financing. Instead, the two-page foreword by the Auditor General comprised not an audit of the VfM assessment, but simply agreement with its presentation style. This is evidently the future of AG audits of public procurement practices. This "attestation report" was evidently aimed at avoiding a duplication of effort. But does an audit not necessarily involve some duplication of effort? And yet, was the original effort even worth duplicating? Paradoxically, while evidencing the wider issues that inform the will to P3, the two-page report contradicts the contention that there is little value for money in VfM assessments. VfM assessments hold eminent sway.[xliv]

The accountability registered by PBC towards the appropriateness of a P3-financed approach is resigned to a second appendix in the form of a bar chart. In Figure 5, the stacks on the left- and right-hand side are the respective costs-items for the non-P3 approach and P3 approach to

the project's construction and maintenance. Common items are contributions to the project from the budgets of regional health authorities – real equity contributions that serve to "backstop" the losses of private partners. Here, note the ~20% equity contribution by the government versus the ~15% contribution by the private partner.

Note the individually identified PSC items for EPC (capital costs) and O&M (Repair and Replacement, and Maintenance). Recalling the trend in P3s to specify outputs rather than inputs, the P3 stack includes the monolithic P3 item P3 fees (cost of service fees). The goods and services (GST) tax items are simply transfers between referent group members. Note no relative *cost of funds* to capture net disincentive effects of taxation-based debt servicing. Mention of the need to incur public debt is taboo in VfM assessments.[xlv]

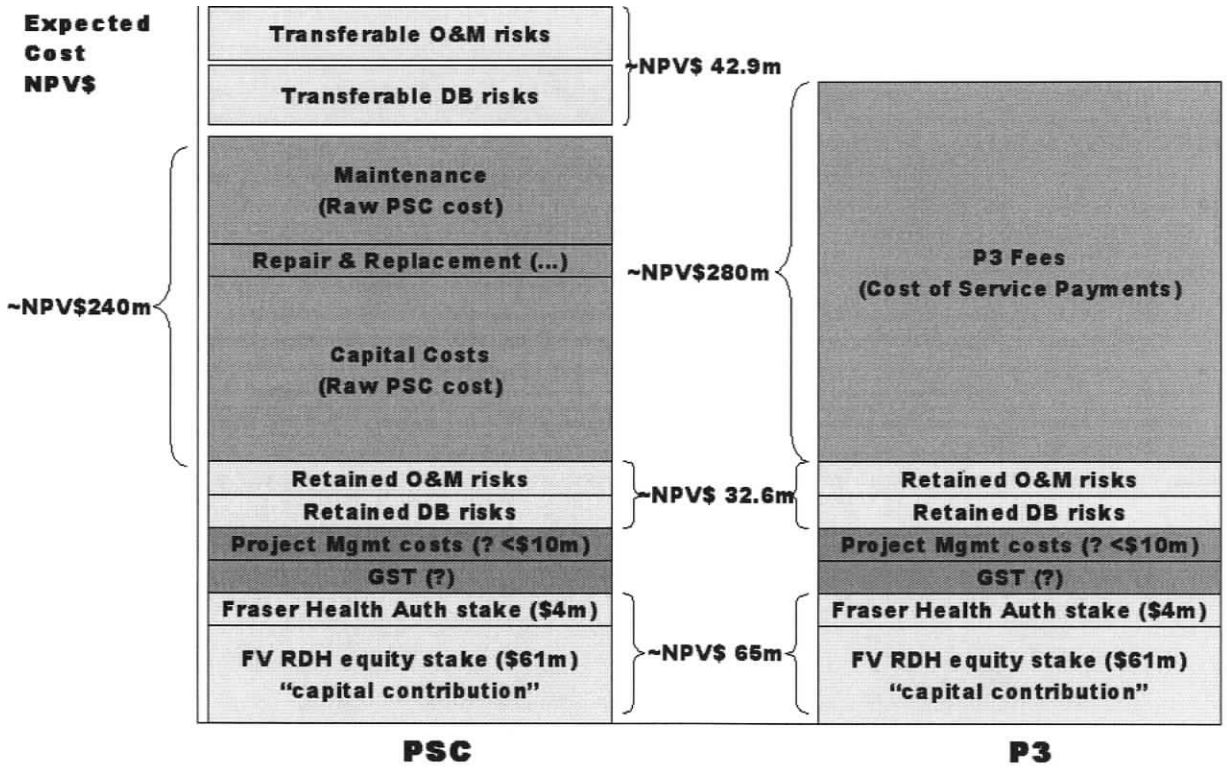

Figure 5 Apparent VfM assessment framework for AHCC P3[xlvi]

Since the AHCC was an early P3 marshalled by PBC, its VfM framework follows the UK "How to construct a PSC" document. Competitive neutrality had yet to be imported from Australia. Nevertheless, promoting the P3 option hinged on the risk transfer story – as P3 current P3 promotion relies on. Common items (8) and (10) ("Retained Development Risk" and "Retained Operating Risk") admit to government-retained risks. PSC cost items (9) and (11) as "Transferable Development Risk" and "Transferable Operating Risk" suggest that P3s are instrumental to risk transfer. These items push total PSC costs over that of the P3 option – at pretty much any discount rate or despite common ranges of sensitivity analysis.

Most notably, the Abbotsford P3 VfM assessment did not calculate its own value of the fixed-price / fixed-term contracts it used. Instead, it simply adopted work others had done – the ~20% figure of the raw PSC – from P3 project VfM assessments in the UK.

Risk Workshop

The majority of the capital risks were estimated during a risk workshop held October 24, 2001 and attended by representatives of PricewaterhouseCoopers LLP, Fraser Valley Health Region, BC Cancer Agency, and the BTY Group, who are the project's quantity surveyor. The total expected value of the capital cost risks is [redacted] The process used in the workshop was to:

1. Identify the risks that can affect capital costs.
2. Assign the portion of the capital budget associated with the risk
3. Estimate the severity of the risk in three categories: low, medium and high
4. Estimate the probability of the occurrence of the risk for each of the three categories of severity
5. Calculate the estimated value of risk using all of the above information.
6. Separate transferable from retained risks. This is done on an individual basis based on whether the private sector has the ability to manage the risk. The review of the probable allocation of risks indicates that under a DBFO arrangement, [redacted] is transferable, while [redacted] is retained by the public sector during the concession period.

Some risks that occur in the period up to and including commissioning were not individually risk-adjusted due to a lack of experience, information and/or time.

Lifecycle costs were estimated by the BTY Group over the building's 60-year expected life. Due to the lack of detail at the current stage of the project, a meaningful estimate of the life cycle cost risk adjustment was not possible. In order to evaluate the public sector against the private sector we instead relied on some rules of thumb. One of them is that the total amount of transferable risk is approximately [redacted]. This ratio is based on experience with healthcare PPP projects in the UK. In this project this equates to [redacted]. This means that the difference between the transferable capital cost risk of [redacted] and the total [redacted]

Figure 6 Hand-me-down risk transfer guesstimates for Abbotsford P3 VfM[xlvii]

These UK health care PPP figures on risk transfer were simply based on the same ~20% estimates from the London Underground workshop. Consider the discrepancy between the adoption of hand-me-down guesstimates versus the assertions by the provincial P3-promoters.

> We are using a risk transfer model that is so complex that only a few people in the province understand the ins and outs of it.[xlviii]

Curiously, the VfM assessment bar chart in PBC document suggests a near equivalence of DBOM costs (EPC and O&M costs) between the options, between P3 item and the sum of PSC's EPC and O&M items. As such, something of a free lunch is suggested. Risk seems to have been transferred at no extra cost, which to firms makes as much business sense as P3s themselves to the public. Subsequent VfM assessments celebrate an optimal trade-off, apparently uniquely realized through P3s, between risks and the costs of their transfer to the private sector. Risk transfer relative to ASD is a myth, as the second part of this paper outlines.

A later checklist attests to the purported instrumentality of P3 financing to the private sector's agreement to bear risks relating to "Financing", "Design (Fitness for Purpose)", Construction (Schedule & Cost), "Facilities Management Services (Standards and cost)", and Maintenance/latent defects". P3s could only result in the transfer of construction risk if such standard construction contract terms as fixed-price terms were technically linked to P3's largely sole incremental addition of PFI.

Opposing any notion of financial risk transfer is the successful insistence by EPC and O&M firms of inflation rate-indexed service payments and guaranteed returns on equity to the P3 project company. Evidence for the latter is not likely to be found given the transparency-inhibiting red-tape of commercial confidentiality. Moreover, the BC government take a partner

role in the P3 project company for the AHCC P3, which saw the Ministry of Finance contribute substantial equity – real equity through operating grant supplied via the local health authority.[xlix]

Primary partners in the AHCC P3 project company "Access Health Abbotsford Ltd." Are PCL Constructors Westcoast (the EPC contractor under a fixed-price contract), Johnson Controls and Sodexho (the O&M contractors O&M, including facilities management, under contracts with performance deductions), and banks Macquarie and ABNAmro (although the ABN Amro's share has since been bought out by Macquarie). That a bank is directly involved in the P3 project company might well reflect the guaranteed returns to lenders implicit in the government's ~20% equity stake. Late 2004 details of the deal were that ABN Amro both provided C$60 in equity in their partaking in the P3 project company and provided C$329 million to it in ~30 year loans. The loans have been rated A1 by Moody's and "priced at under 100bp over Canadian Treasuries" – which reflects "the client credit of the province of British Columbia". Indeed, it also reflects the provinces own equity stake (C$71.3 million contributed from the Ministry of Finance through the Fraser Valley Regional Hospital District) – and its implicit guarantee of the ROI of the P3 project company's partners ("backstopping" the losses of the private partner).[l]

Anything goes: The relativistic free-for-all of multi-criteria analysis

Those critical of VfM assessments would look with hope to policy documents revising or providing guidance to such processes. The UK "Value for Money Assessment Guidance" document, a relatively early document, holds to the risk transfer story in which in P3s,

> the public sector contracts to purchase quality services on a long-term basis so as to take advantage of private sector management skills incentivised by having private finance at risk.[li]

Instead of further objectifying VfM assessment approaches, multiple qualitative factors emerge (to complement dogmatic risk transfer) as a new theme in P3 project assessment. P3 advocates respond that critical investigations of P3s are academic, that they do not consider other

relevant criteria. Such policy squirming is formalized as multi-criteria analysis (MCA). Faster than the most speedily undertaken CBA, more powerful when it comes to hiding motives, and able to leap tall methodological criticisms in a single bound, MCA has become the tool of choice when P3 advocates are queried more deeply as to their assessment policies.[lii]

Goals / Criteria	"Do Minimum"	Preferred (pure public provision)	Preferred ("shadow" P3 bid)	P3 Bid (proponent's bid)
Service Quality	adequate	benchmark	best	best
Strategic Fit	good	best	good	good
Public Interest	good	best	best	best
Other Market Innovations	poor	N/A	best	best
Social & Economic	poor	good	best	best
Financial (risk-adjusted NPV)	$160m	$220m (PSC's NPV)	$215m	$220.5m

Lower apparent cost of a P3 stems from saddling the PSC with "risk transfer". No risk transfer without a P3 stems from considering pure public provision – and not ASD – as an option

Figure 7 MCA, a relativistic free-for-all (with VfM as a "Financial" criterion)[liii]

MCA legitimates swaying the results of sincerely undertaken and broadly considerate efficiency-based analyses by any vaguely specified, non-quantified, or non-monetized criterion. Nevertheless, the MCA in Figure 7 apparently points decisively to a P3. This PBC presentation is uncharacteristically honest. It notes the relegation of fundamentally flawed VfM assessments to mere "Financial" criteria – one falling far behind those of "Service Quality", "Strategic Fit", "Public Interest", "Other Market Innovation", and "Social & Economic". Is the last not redundant with a properly undertaken VfM assessment? Are "Strategic Fit" and "Public

Interest" not diametrically opposed – especially given the will to P3 being that of a tax shield, as the second part of this paper outlines? Why is better "Service Quality" attributable to PFI financing? Moreover, "Other Market Innovation" in recent transportation P3s in BC has been noted by risk rating agency ratings as favourably having been minimal. Anything goes.[liv]

MCA is a free-for-all of relativism. And yet, it is not relativism, but economic institutionalism that is defaulted to – the non-explicitly valued criteria of political ideology and market power as the will to P3 that remain absent from their trail of accountability. For its being an effective tautological tool, MCA has been noted (by Aidan Vinning, of CBA's Vinning and Boardman fame) to require "inoculation" by CBA. VfM, too?[lv]

P3s and their relative distributional impacts

Since projects do not affect everyone in the referent group identically, sensitive and sound assessments consider a project's distributional effects. Whatever their hopefully positive impacts on (Pareto) efficiency, of providing a PPI, it is lamentable that the distributional impacts of P3s on members of the referent group are not identified by organizations mandated to promote P3s and marshal P3 processes. The issue behind P3 policy is a distributional issue, although it has negative efficiency effects relative to ASD. Relative winners of a P3 approach are EPC and O&M firms. The relative loser is the public purse.[lvi]

Business Case Analysis

Part one of this paper concludes with brief comments on business case analysis. Business case analysis is a valid set of techniques when applied within the confines of a business enterprise where the referent group is that of its shareholders. Instead of general economics costs and benefits, only financial costs and benefits are considered. Net social surplus simply becomes bottom line profits. That VfM assessments indicate its having been used is only indicative of the

rigour of analysis EPC and O&M firms have dedicated to ensuring that PFI accords their interests. Along with valuation techniques for variously structured ventures (witness the WACC), business case analysis does bring to light the tax shield implications of debt, as part two of this paper considers to be central to the will to P3.

Part one of this paper discussed P3s as PFI+ASD, reviewed selected academic contributions to the P3 discourse, and provided a critical genealogy of VfM assessments as P3 *ex ante* comparative project assessment practice. The following three theses were supported. Firstly, owing to an implausible basecase of pure public provision (and not ASD) and an invalid cost items, there is little value for money in VfM assessments of P3s. Secondly, competitive neutrality is not a valid cost item for comparisons of relative social surplus between P3 and non-P3 approaches. Thirdly, the search for and use of a singular discount rate only gives credence to a hardly credible *ex ante* comparative project assessment framework.

Part two of this paper argues against the validity of the risk transfer cost item in VfM assessments. P3 risk transfer relative to ASD is revealed to be a myth, a revelation supported P3 NRF deal structures, by firming public sector accounting standards, the codification of interests and risk abatement mechanisms construction contract law, and the economics of incomplete contracting. An examination of P3 NRF deal structures reveals the will to P3 is being a tax benefit transfer to EPC and O&M firms – one in which avoid usual trade-off between corporate asset risk exposure and borrowing costs, since the public picks up the tab for the latter.

Part II

This paper's second part is aimed at uncovering the will to P3 and at dispelling the notion that a P3's PFI component is instrumental to any risk transfer over and above ASD at its core. These aims are pursued primarily through a thorough analysis of the legal and transaction structures of P3s. The myth of risk transfer is confronted on three fronts: Transferable risks were already transferred in well negotiated ASD contracts using long-standard construction contract law; non-transferable risks cannot be transferred; risks are introduced by financial and legal deal structures for the PFI component of P3s. That latter is the ironic endogeneity of risk to P3s, risk borne by governments in their monetized form as higher borrowing costs. Firming accounting treatments of P3 leases are also reviewed to underscore the incomplete contracting realm of P3s. Some of the contractual means for rational risk aversion between parties in P3s is outlined through a discussion of the interests of parties to P3 construction contracts.

The will to P3 arises as the tax shield for EPC and O&M firms made possible by PFI-incurred debt – a tax shield enjoyed without the normal trade-off between corporate asset risk exposure and borrowing costs since the latter is passed on to the governments. The will to P3 – to gift the tax shield – affixes new meaning to the discredited VfM assessment cost items of risk transfer and competitive neutrality. Risk transfer can be read as a first-estimate monetization of the tax benefit transfer to firms of this P3's PFI financing; competitive neutrality can be likewise be read as a preliminary quantification of the marginal weight of dominant political ideology and market power. That P3s apparently *must* be done is either a gesture to institutional economics or, as this thesis concludes with, to a surprisingly sect of Marxism.

P3s as project procurement postmodernism

Through the notions that the canon of public works procurement is expressly abandoned, that the objective criteria in evaluation are treated with disdain, and that language is a malleable means to suit the ends, P3s are entirely postmodern. P3 concession agreements are rooted in the contract law, which is entirely postmodern in its function as a toolkit for DIY (do-it-yourself) legal systems. P3 concession agreements see core ASD contracts surrounded by a complex web of commitments, incentives, liabilities, obligations, and promises that structure NRF for PFI. Proxying for universally held values in contract law is mutually held trust in the ability of contract negotiations and eventual litigation to solve problems. Solutions structured less by adversarial strategy and requiring less legal fortification arise when parties factor into their own interests those of the *other* – when Adam Smithian *fellow feeling* plays.[lvii]

Hip institutional economists will recognize this as *intersubjectivity*, which forms the core of Habermasian *discourse ethics*, *communicative rationality*, and its *communication action* – or, to debauch Hab's Teutonic prose with Business English, *satisficing*. Avio (2002) suggests that any future for institutional economics lies in integrating Habermasian communicative rationality as the basis for its now-absent normative framework. Three unresolved problems of social organisation raised by institutionalists are noted in as being "the legitimacy of the *status quo ante* …, the legitimacy of society's transaction structure …, and the problem of social order". All are eminently relevant to P3s.[lviii]

In P3s, the continued problems of the "legitimacy of society's transaction structure" are well evidenced. Most party to the P3 discourse are ill-informed about the ramifications of a P3's underlying transaction structures. Moreover, P3 processes do little to legitimating the *status quo*

ante in public works procurement processes when commercial confidentiality is readily summoned to hide from public scrutiny what are already Byzantine transaction structures.[lix]

In P3s, the legal and financial frameworks of contract law and NRF combine instrumentally with political ideology and the economics of market power. Taking mock equity stakes (not equity but subordinated debt) in limited liability *equity partners* of P3 project companies set up to incur P3 debt, EPC and O&M firms create a tax shield – one achieved without having to face the trade-off between corporate asset risk exposure and borrowing costs. That governments have been convinced to convince themselves to P3, to accept higher project costs because of higher borrowing costs associated with NRF is disdainful to the canonical adage of "no free lunch". P3s flaunt in a real policy context what postmodernists achieved only in the aesthetic realm – acceptance of the absurd.

The myth of risk transfer in P3s

Consider now the notion of risk transfer and P3s. And yet, what transferable risks does risk transfer involve? P3s are often enveloped in the privatization debate. And yet, ownership of underlying assets is irrelevant if all contingencies, liabilities, and responsibilities can truly be contracted around. In this, this economists' theoretical Coasian construct, there are negotiable prices for everything, immutable responsibilities for nothing, and perfect foresight as to the trustworthiness of counter-parties. As such, transferable risks are, by definition, those of a complete contracting realm.[lx]

The abatement of risks of the complete contracting realm has long been achieved in ASD construction projects by various mechanisms. When successfully bargained for, these realign incentives between parties to mitigate moral hazard problems in principal-agent relationships (fixed-price contracts), to secure project cash flows (take-or-pay), or even to insure against

financial risks (hedging, swaps, etc.). Pro-P3 arguments around risk transfer imply that P3s are responsible for the inclusion of such mechanisms in contracts for public works procurement.

Ownership does matter to the real realm of incomplete contracting. Ownership, such as that of governments, bestows residual control rights and its attendant 3Rs. As such, there are risks that can never be transferred, were never transferred through ASD, and could even less likely be transferred through PFI+ASD as P3s. These risks are those to which culpability cannot be attached such as those of *force majeur* (or Acts of God), those for which responsibility cannot be transferred (immutable government responsibilities to provide and maintain public works), or those owing to long-term contingencies. The last can be read as a failing, and not simply a bound, of complete contracting realms.

Finally, there are risks that were absent from ASD, but that are introduced by a P3's having added PFI to ASD. PFI achieves the objective of providing a tax shield to EPC and O&M firms by incurring debt. This is not done with corporate financing, which would make corporate assets liable for financing risks, but through NRF. There, the trade-off between borrowing costs and asset exposure is overcome by governments being the ones to incur higher borrowing costs through their P3 payments – and in some cases even to guarantee PFI debt servicing. The credit risk (or default risk) of P3 project companies is the additional PFI-introduced risk transferred to the public sector through higher P3 project costs. Some public-borne risk is therefore endogenous to P3s.

Risks and the legal and financial transaction structures of P3s

Arming EPC and O&M firms with PFI debt as a tax shield for ASD profits

What is it that motivates EPC and O&M companies to pursue public works contracts through PFI+ASD? EPC and O&M are well-trodden activities. Although often undermined by flawed planning leading to the risks of cost under-estimation, they are hardly speculative enterprises commanding high rates of return based on risks such as in high technology ventures. Recall the context for P3s of imperfect markets. Save rent extraction via direct handouts from governments or in addition to inflated estimates of project costs, how might EPC and O&M firms augment their bottom-line? Lower corporate taxes.

One route is for governments to be convinced to lower corporate tax rates. A far less politically sensitive route is to offer tax breaks for innovative research and development (R&D). While EPC and O&M firms have the critical mass to dedicate resources to the required grantsmanship, their activities are not sexy enough to qualify for R&D tax breaks. Guerrilla accounting tactics are called for, and with zealous governments, PFI answers the call. Indeed, since interest payments on debt are tax-deductible, EPC and O&M firms benefit when their ASD contracts revolve around PFI. The will to P3 has its genesis here. PriceWaterhouseCoopers, arguably the designers of PFI, write the following in a paper on the tax shield motivations of PFI.

> [S]ince debt service is paid out of pre-tax income, there is a tax benefit to additional debt … This benefit is reflected as a tax shield in the cost of debt [pertinent to the corporation's weighted average cost of capital]… When losses are made in a given period, the tax shield benefit is deferred to a subsequent period in which profits are made.[lxi]

ASD legal and financial deal structure – risk transfer, no tax benefits

So begins this paper's analysis of P3 deal structures. Figure 8 presents the simply deal structure for ASD – simply contracting. Citizens are granted the benefits of realized public works, which they pay for through their dual role as taxpayers. Representative governments commission private EPC & O&M, and finance their general undertakings with debt financing.

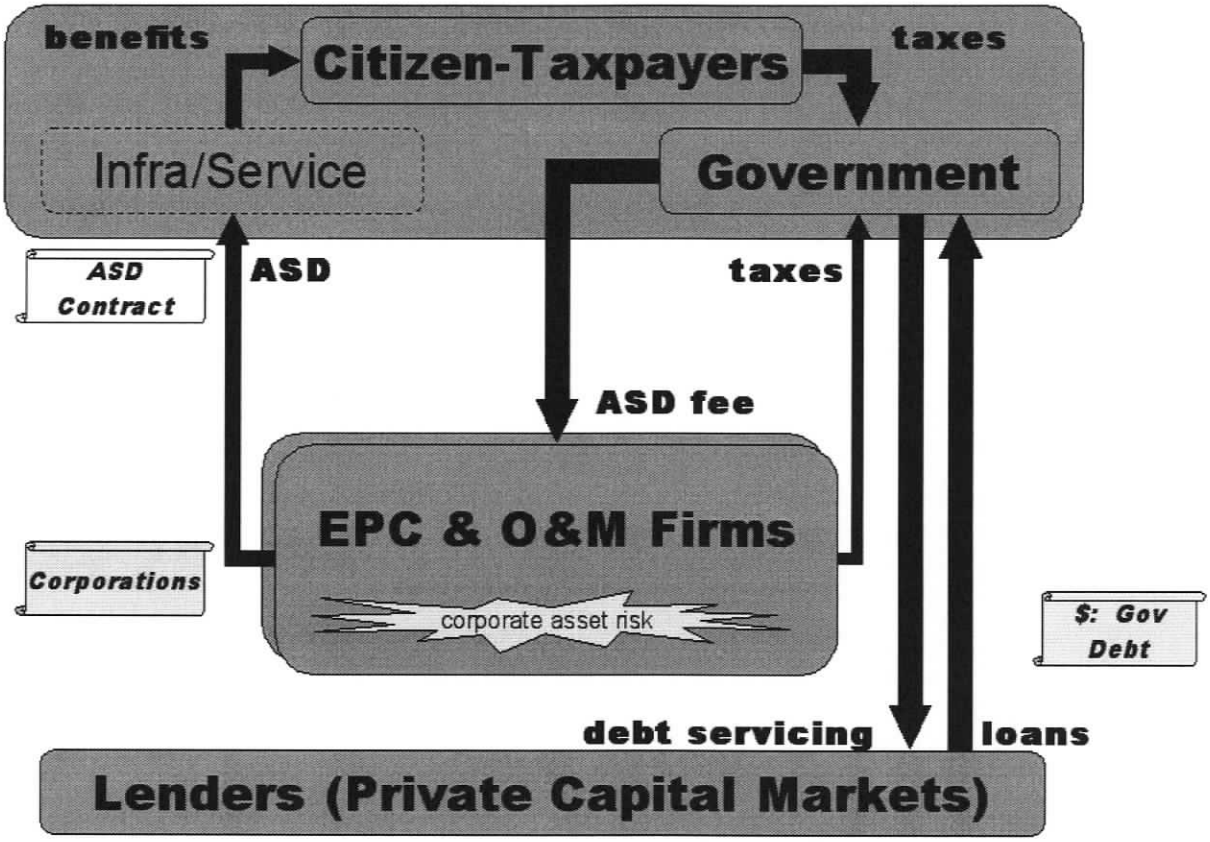

Figure 8 ASD deal structure (solely government financing; no tax shield)

Crucial to ASD is that private firms are contracted simply through the rewards of ASD profits. That Figure 8 indicates "solely with government financing" might seem pedantic, but it begins to frame how descriptions of P3s misleadingly suggest that private firms arrange financing, when in fact government financing underlies both ASD and P3s.

The model of ASD in Figure 8 does not consider user fees, which would represent a further shift towards outright privatization – albeit one that without take-or-pay clauses in ASD contracts exposes O&M firms to demand risk (or to the sovereign risks of governments putting projects on hold). Risks that can be transferred are those for which an incentive structure in contracts can be bargained for and that can be asserted in practice. The risks fall within the realm of complete contracting. EPC and O&M firms (and, in turn, their subcontractors) are commonly subjected to fixed-term contracts, motivated to exceed standards through performance penalties (and/or adjustments), and required to post completion bonds.

That Figure 8 denotes the types of financial agreement and legal forms involved is pertinent to understanding the differing risk, tax, and public debt implications of ASD and P3s. Here, EPC and O&M firms are corporations. As such, when mechanisms in its complete contracting realm are asserted, it is then corporate assets that are liable.[lxii]

As to corporate taxes, since ASD-structured projects do not see private firms issue debt, there is no tax shield from having incurred debt. Neither is there a tax shield from capital cost allowance (depreciation), since in ASD there is no transfer of ownership of the underlying depreciating assets (not that there is in a P3), nor any corresponding service lease-back. Figure 8 does show corporate taxes remitted to the same government that commissioned the ASD project, which might not be the case with different jurisdictions for project commissioning, tax collection, and corporate registration. Consider, then, taxes in Figure 8 to be that portion seen by the referent group of the jurisdiction commissioning the project. Finally, with no leaseback of public works, there is no question of an on-balance sheet accounting treatment for governments – debt is debt.

A benign description of P3 contracting structure?

A seemingly benign description of a typical P3 deal is as follows: A concession agreement is entered into with a P3 project company for DBOT (design, build, operate, and transfer back to the public entity after a long concession period). The P3 project company secures financing from lenders and manage the project's undertaking by contracted EPC and O&M firms.

The description is misleading for a number of reasons. First, it suggests that there is a substantive transfer of ownership between the public entity and P3 project company. Second, it hides the fact that the P3 project company and its mock equity partners are incarnations of the very EPC and O&M firms undertaking the work. Third, it implies that the sole financing involved is that arranged for by the P3 project company. Fourth, it makes no mention of the fact that the limited liability SPV structure of the P3 project company has bearing on project costs. Fifth, no mention is made of various schemes (bonding, letters of credit, insurance) to appease lender doubts of a debtor's debt servicing ability.

The risk-mitigating impetus of nonrecourse finance

Forget, for a moment, the procurement of capital projects through P3s. How are the large-scale projects of firms structured? Increasingly, they employ the deal structures of NRF and not the more direct corporate structure of corporate finance. As Figure 9 illustrates, while profits, losses, tax benefits and deductions, and liabilities flow through a general partnership, limited partnerships limit the flow-through of liabilities beyond to the extent of equity stakes. Minimum risk, maximum tax benefits. Indeed, as to minimizing risks, NRF isolates firms from project risks by establishing a SPV project company whose sole reason for being, as *single purpose vehicle* implies, is the project:

> Standard & Poor's defines a project company as a group of agreements and contracts between lenders, project sponsors, and other interested parties that creates a form of business organization

> that will issue a finite amount of debt on inception; will operate in a focused line of business; and will ask that lenders look only to a specific asset to generate cash flow as the sole source of principal and interest payments and collateral.[lxiii]

Be it a lone limited partnership or a collection of them in a general partnership, the limited liability form of the P3 project company sees risks to equity partners (and behind them firms) limited to their equity stakes. The goal is to keep equity stakes, and therefore also corporate asset risk exposure, low. That this results in lender demands for higher borrowing rates is an accepted trade-off if limiting recourse to corporate equity is of paramount concern.

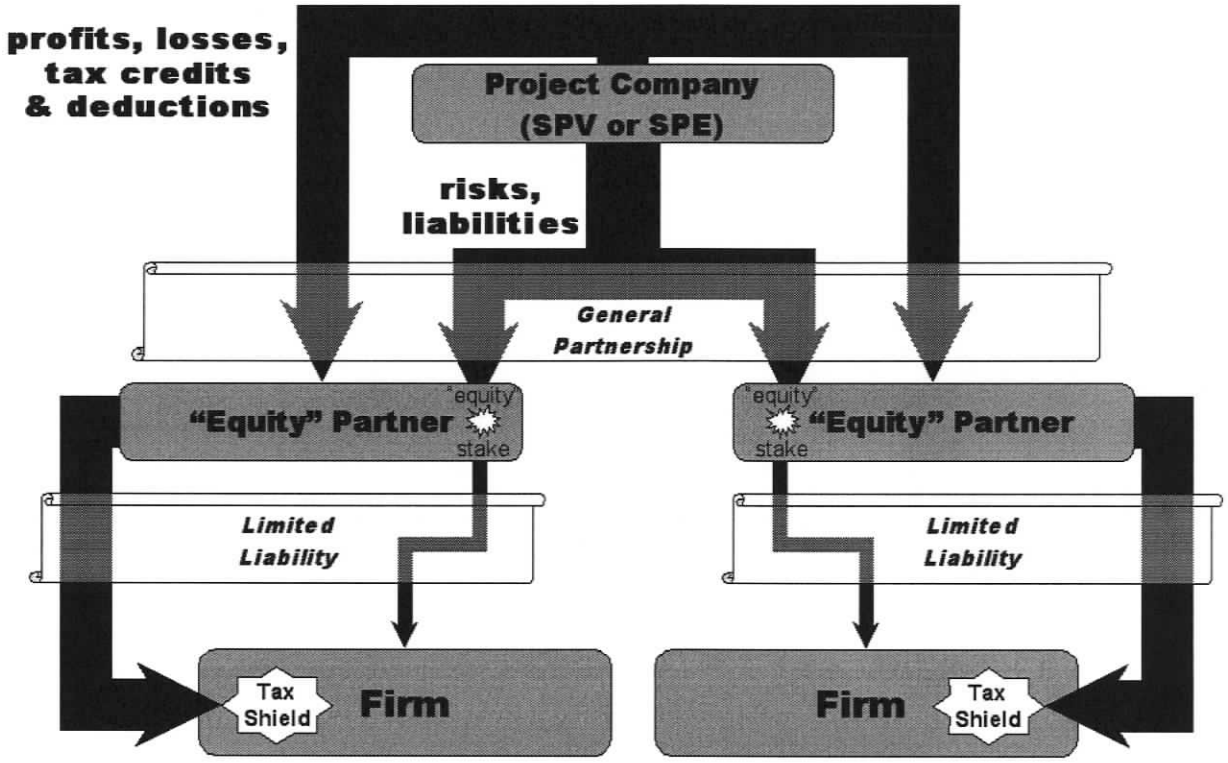

Figure 9 NRF partnership deal structure (tax transparent, but liability limiting)

As to taxes, the P3 project company books debt on-balance sheet (as opposed to Enron-styled), its limited liability and tax transparent form passes upwards to the corporations profits (or losses) and the accompanying responsibility for taxes – including, crucially, the tax shield of high leveraging. Given high leveraging, lenders look for *liquidity support* in project assets,

offtake agreements with well rated commissioners (governments), agreements having minimal volume risk (demand risks of tolls or shadow tolls), and more explicit debt servicing assurances.[lxiv]

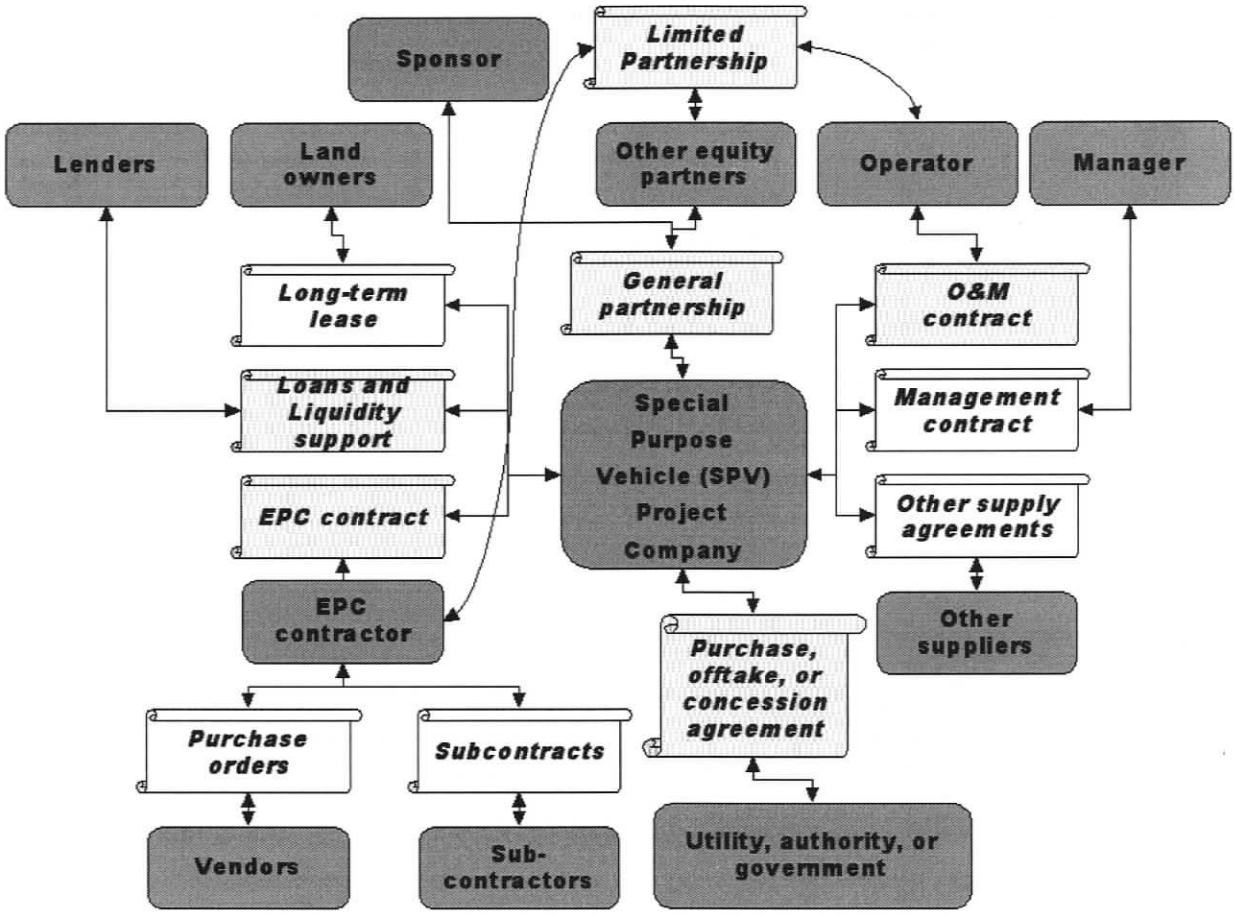

Figure 10 Agreements and assignments in a typical NRF construction deal[lxv]

In the typical NRF deal structure presented in Figure 10, the "Sponsor" denotes the limited liability progeny of the "EPC Contractor". There, "Other Equity Participants" are the limited liability offshoots of other contractors, such as the "Operator". The government (or a crown corporation) is typically both "Landowner" and "Utility". If it was a "Bridge Concession Agreement" or a "Hospital Concession Agreement" and not a "Purchase (or offtake)

Agreement", the "Utility" might be a "Transportation Ministry" or "Regional Transportation Authority" – or "Health Authority". The "Long-Term Lease" of land assures the "Special Purpose Project Company" exclusive access to the underlying land asset.

P3 legal and financial deal structure – adding PFI's tax shield

P3 legal and financial deal structures to add PFI to ASD are complex. However, without exposing the NRF deal structures specifically deployed for P3s, the implications on any additional risk transfer to ASD and on the tax shield motivations of P3s are obscured.

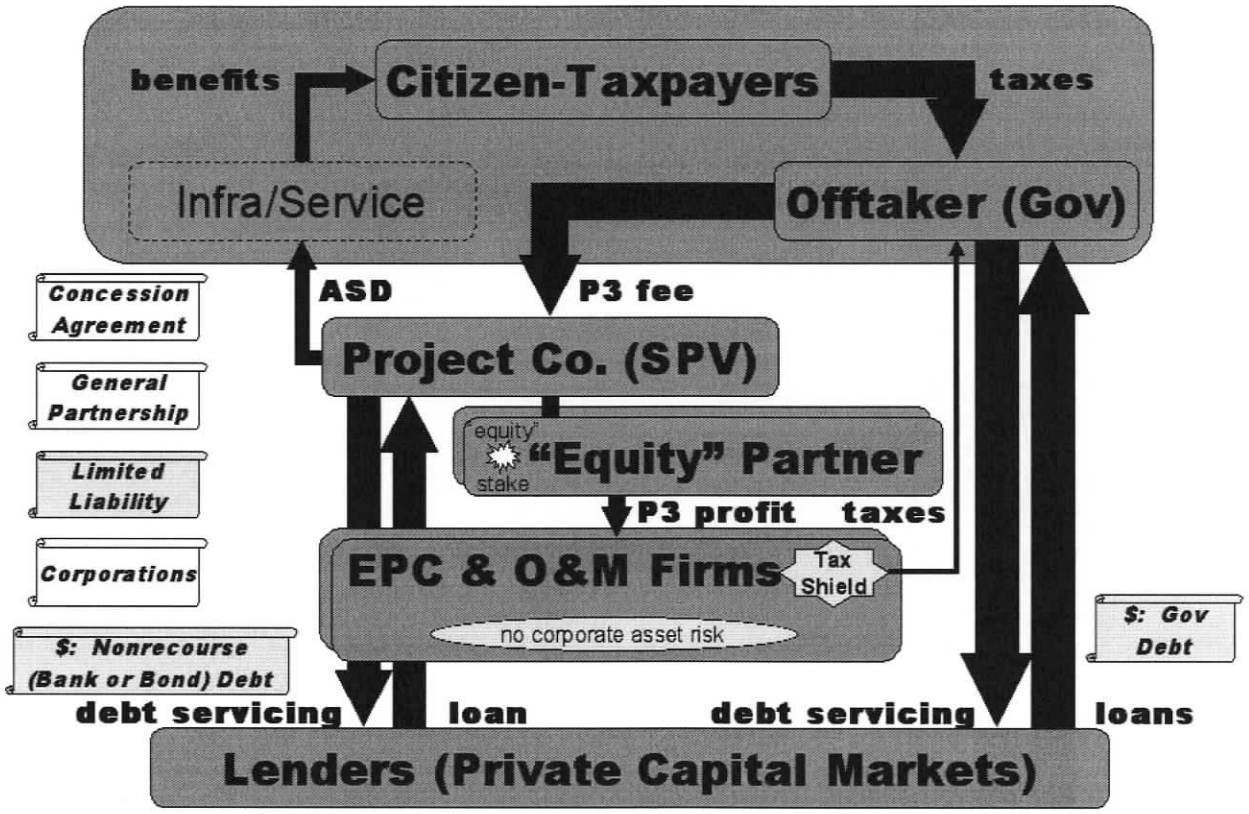

Figure 11 NRF deal structure for a P3 (tax shield; limited liability)

A key detail abstracted away from the above, but addressed later, is that the government might be an equity partner – a true equity partner, staking equity, and not simply subordinated debt. The AHCC P3 saw an equity position taken by the government in the P3 project company

far greater than others' equity positions. Implication? There is very limited risk transfer to firms, since the government was the partner in the P3 project company with equity to lose. Since subordinated debt used for the mock equity stakes was included in the P3's PFI financing, the government assumes the default risk of the P3 project company.

A P3 tax shield monetized – SNC Lavalin and the Highway 407 P3

A natural experiment of sorts emerges from SNC Lavalin's separate financial accounting of its 16.77% in the Highway 407 P3 in the Canadian Province of Ontario. In SNC Lavalin's 2005 annual report the extent of the P3 tax shield can be seen. In 2005, while revenues were ~$70m, only ~2% taxes were on ~$50m margins – largely because ~$50m in interests and other expenses were deducted. Beyond the essentially tax-free margins, this left a further net loss, which the company then uses to further reduce taxable income. To be sure, this paper does not suggest that the deductibility of 2005's interest on P3 debt was solely responsible for the ~$50m deducted.

Figure 12 The P3 tax shield (to SNC Lavalin for the Highway 407 P3)[lxvi]

Why not corporate finance for P3s?

Distinctly not the model employed in P3s as PFI+ASD, corporate finance sees essentially full liability of, or recourse to, corporate assets for project financial risks. This simple model is envisaged, or unknowingly implied, by the birds-eye view abstractions of P3s in typical writings. If, as shown in Figure 13, P3s employed corporate financing, the incurred corporate debt would trivially yield the tax shield. Yet, having full recourse to corporate assets, lenders would not demand as high a risk premium as with NRF. Higher asset risk exposure traded for lower borrowing costs is the trade-off accepted in corporate finance. And yet, the will to P3 has made it possible for EPC and O&M firms to beat this trade-off. With governments having been convinced to convince themselves to bear higher borrowing costs, corporate liability for debt incurred for a tax shield can be limited to that achieved under NRF.

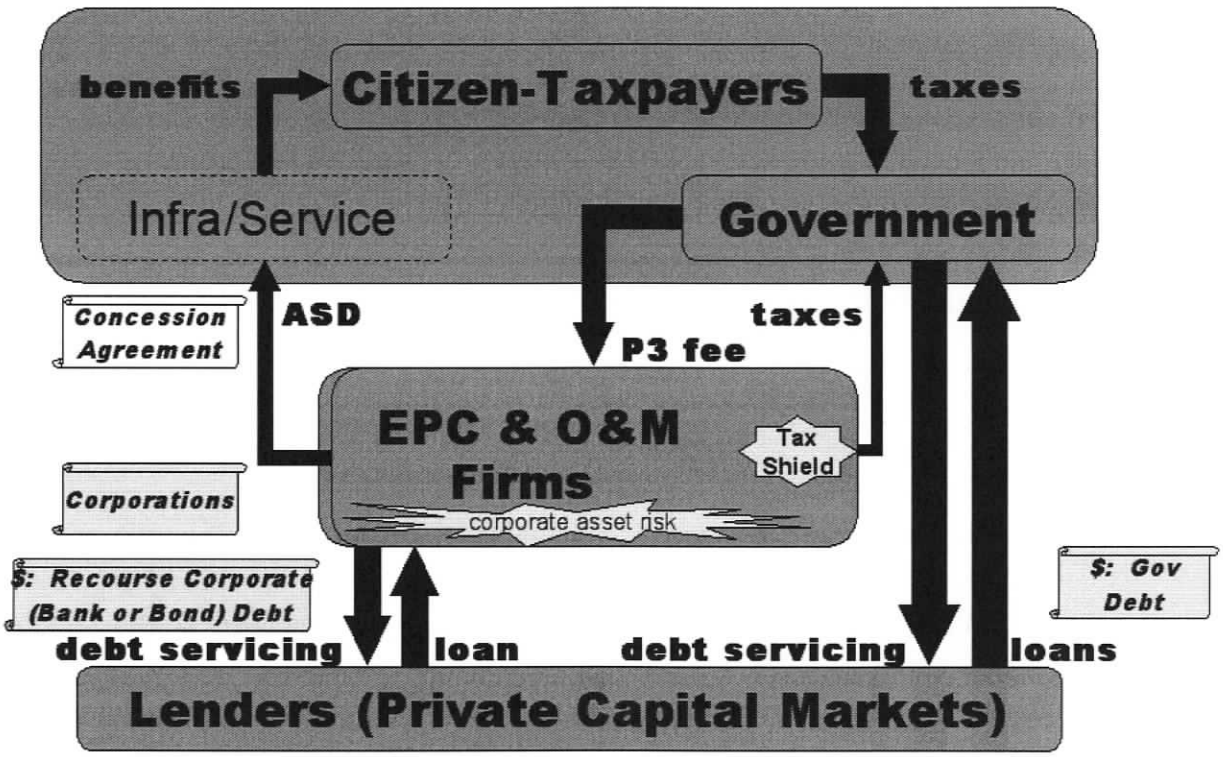

Figure 13 If PFI was done via corporate finance (fuller asset risk exposure)

How to lower project finance borrowing rates – assure debt servicing

With P3's use of NRF versus corporate finance having been shown to result in higher borrowing costs, what would see P3 bond issues better rated? P3 bonds would be more attractive to lenders if there was less credit risk or financial risk – if there was better *liquidity support*. Weighing heavily on risk assessments of P3 debt are the high debt-to-equity ratios (on the order of 75% - 90%) of P3 project companies. Financial risks are made more acute where concession fees have some contingency on volume (through tolls or shadow tolls), availability (through fixed-price contracts), or performance (through performance adjustments / penalties). The exposure of the P3 project company to such risks as demand, construction, and operating risks are liabilities that put lenders at risk of debt servicing obligations to them not being met.

A general debt management consideration for P3s is that timelines are often too long for banks. Resultantly, instead of bank financing through loans, bond financing is used. Somewhat schizophrenically, P3 lenders are often public sector employees through their pension funds. Such conservative institutional lenders often require at least A-rated investments, which P3s find difficult to live up to without improved liquidity support. P3 bond ratings are be bettered by various means. These are most often letters of credit (LOC) from the EPC and O&M firms behind P3 project companies or from banks, performance guarantees by EPC and O&M firms, insurance (*monoline insurance wraps*), or, as is currently being envisaged, government guarantees (CGF; *credit guarantee facility*). With guarantees removing uncertainties, CGF of course fully dissolves the myth of risk transfer.

Monoline insurance wraps allow P3 proponents to claim that borrowing rates for wrapped P3 loans are close to those of government rates. Although they are not presently possible in Canada due to insurance and banking industry regulatory issues, monoline insurance for a P3s have

recently been realized by going abroad. This brings slight exchange rate risk to P3 project companies, whose swap costs are eventually paid for by goverments in P3 fees. Nevertheless, resultant P3 costs to governments are higher for having been passed on the premiums for this insurance in P3 fees. As shown in Figure 14, P3 bonds are "wrapped" and their credit rating nudged up to that of the insurer. Was it not that the insurance premium was passed on to governments through P3 fees, one could say that financial risk was transferred.

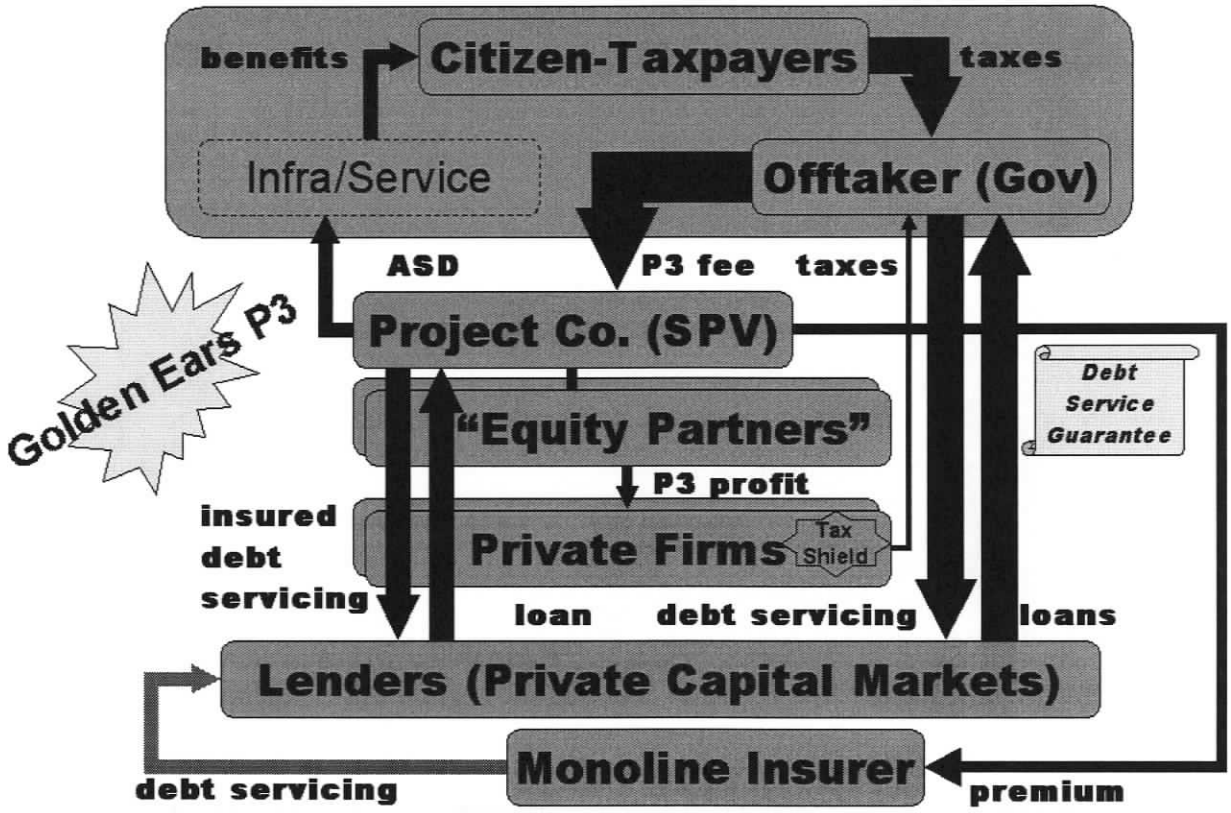

Figure 14 Monoline Insurance (premium for SPV's better rating in P3 fee)

Monoline wraps make their Canadian debut in 2006 with the Golden Ears Bridge P3 in BC. Despite a risk profile for the P3 that debt rating agencies report as having neither volume risk (the government levied tolls) nor inflation risk (P3 payments were indexed to inflation), nor significant performance adjustment risks, nor operations risks, or other offtake risks, the P3

project company's rating was BBB. In order to improve the debt's appeal to institutional lenders (such as the eventual lender, the Belgian bank Dexia), additional costs were incurred to wrap the P3 debt (through monoline insurer Ambac) up to an AAA rating. Pro-P3 communications spin will surely tout the AAA rating of the wrapped debt as nearing that of government ratings without mention of the premiums being passed on to the government in P3 fees. Already, P3 costs reported are simply those of estimated construction and operating costs, without including transaction costs, monoline insurance costs, or profits margins.

Liquidity support in the form of a LOC is, in essence, a pledge for a trouble-conditional cash injection. Pressure to secure LOCs from EPC and O&M firms would stem from lenders or debt rating agencies – or, less likely, by governments concerned that financial risk is unduly incident on them through the inclusion of higher cost P3 debt in P3 fees. In its introduction of limited recourse to corporate assets, a LOC lodges with firms some limited responsibility for the risks taken on by – and inherent to – the P3 project company. In Figure 15, the arrow from "Private Firms" to "Project Co." signifies the former's risk of capital outflow – the pledge.

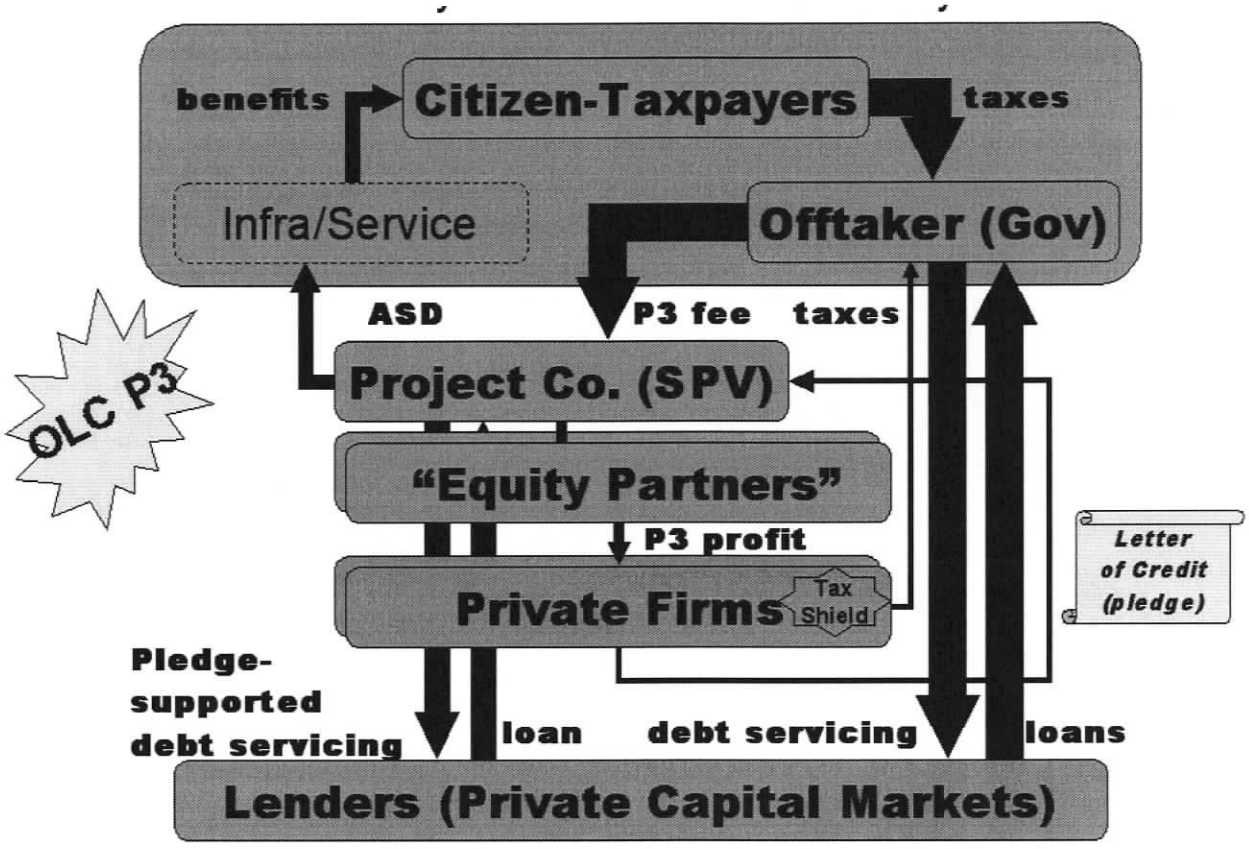

Figure 15 Letter of Credit (pledges to inject cash, but not full liability)

A LOC only suggests, but does not achieve, the fuller liability of the corporate finance model. As such, a LOC does not remove the endogeneity of risk to P3s, which remains incident on governments through its monetization as higher borrowing costs being included in P3 fees.

Liquidity support via CGF would occur because it is preferable to EPC and O&M firms for governments to be convinced that they wish to guarantee the debt servicing ability of P3 project companies. In Figure 16, the arrow from "Offtaker (Government)" to "Project Co." signifies the former's risk of capital outflow. Recall government bailouts of private firms providing public infrastructure or services with privatized public assets, such as the UK government's bailout of RailTrack. CGF formalizes a guaranteed bail-out into the fabric of P3 deal structures. It also quite directly formalizes the government's retention of the risks endogenous to PFI.

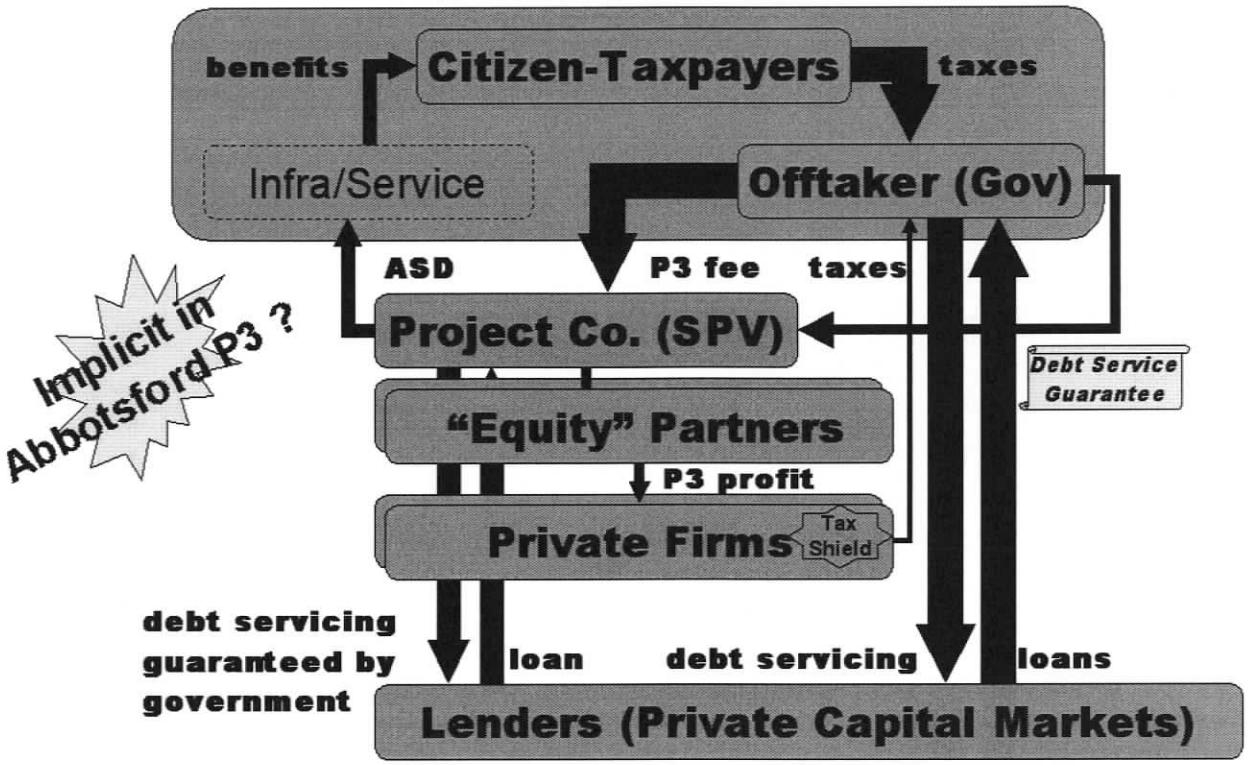

Figure 16 Credit Guarantee Financing (what P3 risk transfer now?)

Guaranteed return on equity and subordinated debt partners

What would fully erode the myth of risk transfer in P3s is the extraction, by firms from governments, of a guaranteed return on equity (ROE) or return on investment (ROI). As shown in Figure 17, an "ROI guarantee" sees governments make all risks fully incident on themselves. Moreover, the capital structures of P3 companies are even more highly leveraged than implied by their debt-to-equity ratios. Instead of injecting equity partners with actual equity, firms use *subordinated debt*, whose debt servicing is subordinated to that of senior debt. The resultant non-trivial default risk sees these lenders demand an extra risk premium, which in P3s are passed down and over to governments. Figure 17 shows such euphemistic equity partners.

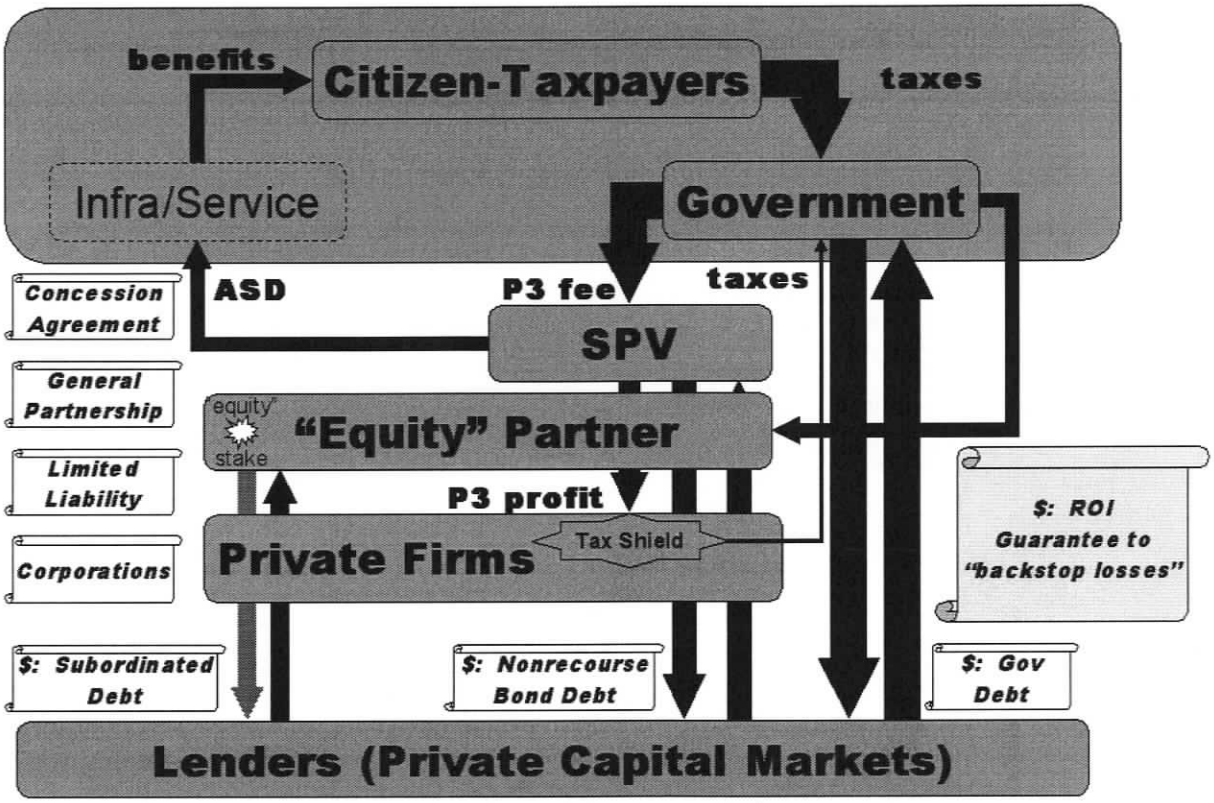

Figure 17 "Equity" Partners and ROI Guarantees (full erosion of myth of risk transfer)

An example P3 deal structure – Okanagan Lake Concession

Consider the recent P3 for FDBOM of a bridge upgrade in BC. As Figure 9 noted, a P3 project company might be a general partnership between multiple equity partners, which pass limited liability to their owner firms. Multiple equity partners arise from a project company having a concession for many activities, as is suggested in Figure 10. Figure 11 considered only EPC and O&M. Corresponding to its primary purpose of issuing debt, the P3 project company contracts EPC and O&M firms – the very firms (or their subsidiaries) that spawned the P3 project company. A single limited partnership suffices when contractors are all subsidiaries of the sole firm behind the P3 project company.

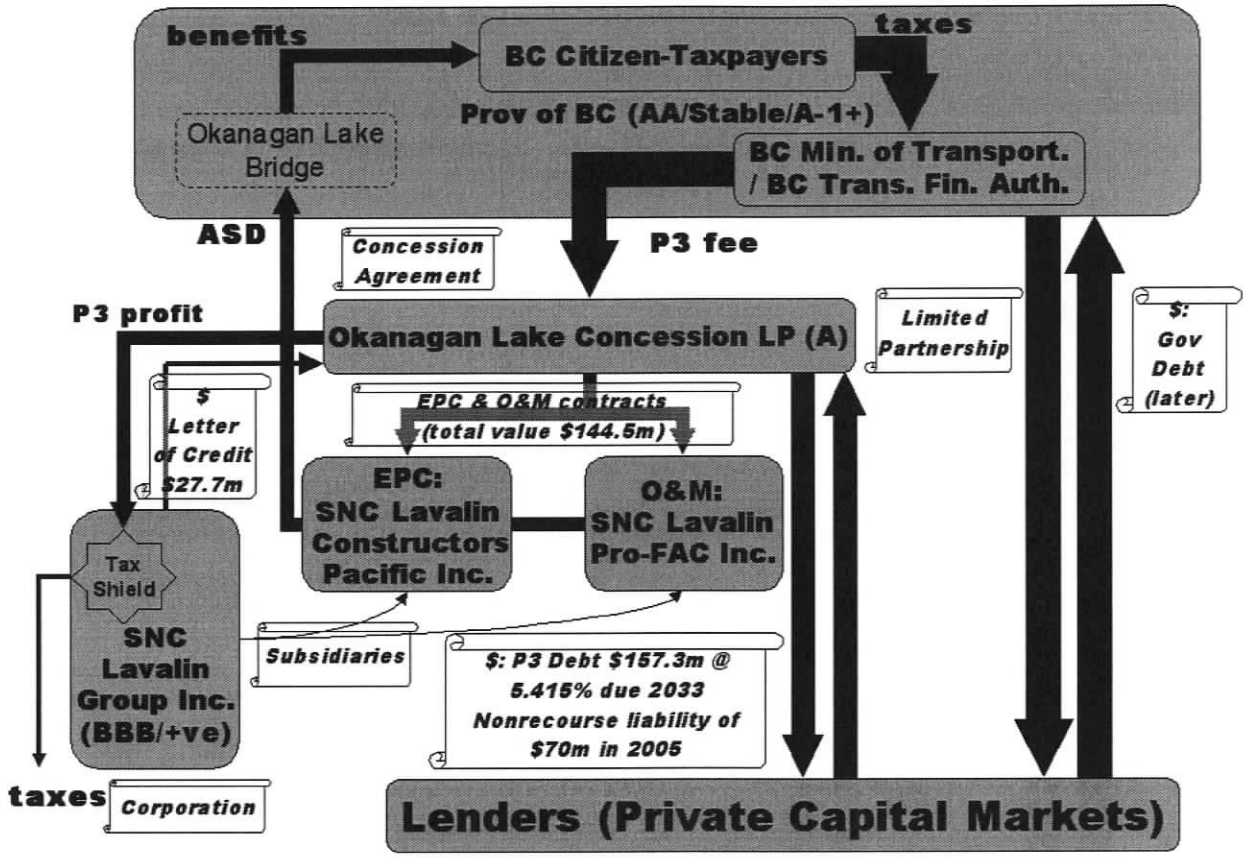

Figure 18 Deal structure for Okanagan Lake Crossing P3

As shown in Figure 18, a single limited partnership sufficed for the P3 project company. The "Okanagan Lake Concession L.P." (OLC) was set up as a limited partnership by SNC Lavalin to issue PFI debt and to contract out EPC and O&M activities. EPC was initially contracted out to a joint venture between SNC Lavalin Constructors (Pacific) and CMIB OKB Holding (a subsidiary of Vancouver Pile Driving, an unrated corporation). SNC Lavalin is now the sole partner. O&M went to SNC Lavalin Pro-Fac. Notwithstanding the sub-contracted role CMIB OK Holding might play, the prime contractors for O&M and EPC activities is SNC Lavalin.[lxvii]

And what of the debt-to-equity ratio of OLC on $144.5 million of debt? Indeed, the OLC P3 was initially estimated to have a capital cost of $100 million. However, the current figure has increased by $44.5 million (due, it seems, to increased costs of construction material and labour)

– and these costs are borne by the government. Interestingly, one of the evaluation criteria for the OLC P3 was the "Capacity to Invest Equity" – specifically, the "ability of the Interested Party to demonstrate financial capacity to invest at least CDN$10 million of equity capital in the Project." An equity stake of less than an order of magnitude smaller than the incurred debt is reason to look desperately for liquidity support.[lxviii]

With P3 projects companies having high debt-to-equity ratios, lenders, through the analysis performed by rating agencies, look for positive credit characteristics. The specific questions considered by rating agencies are:

> How certain or controllable is the revenue stream? Availability & service linked payments, not volume based [no demand risk]; contractual, not market price [no inflation risk].
>
> Does contractual conditionality represent a threat? Complex performance based payments, however; fragmented measurement regimes & market testing help [easily met performance targets]
>
> How difficult is it to meet the contractual or performance obligations? Low operating risk; minimal technology risk [no operations risk; no innovation risk][lxix]

Standard & Poor's credit rating for the OLC P3 bond issue offers poignant detail about its NRF deal structure and eventual appeal to its lender, the Ontario Teachers' Pension Plan Board (and the Sun Life Assurance Company of Canada). The liquidity analysis shows that SNC Lavalin was required to provide a LOC in order to improve OLC's debt rating. This bettered OLC's rating, which lowered OLC's borrowing costs, which resultantly lowered the government's overall costs. However, this was arguably not as low as could have been achieved if the project was simply undertaken as ASD with SNC Lavalin's EPC and O&M subsidiaries.

Liquidity support was also bolstered by performance guarantees from the EPC joint venture – contractual obligations to meet the obligations of the P3 project company to the concession agreement. The interesting question as regards the will to P3 is whether the requirement for a letter of credit and a performance guarantee was at the behest of a government interested in

lowering P3 costs or the result of a lack of lenders willing to extend debt. The latter, diminished market appetite for P3s, was instrumental it seems, since performance guarantees were deemed key to the analysis – "the guarantee [LOC] from a corporate entity [SNC Lavalin] rated 'BBB/Positive' provides residual credit support".[lxx]

Given such high leveraging, the rating of the OLC P3 debt issue was further propped up by such "positive credit characteristics" as a "supportive government offtaker" – namely, BC's AA/stable/A-1+ credit rating. The likewise liquidity support of "low indexation of availability payments from the offtaker" means that governments wrote minimal performance penalties into the concession agreement.[lxxi]

The OLC P3's NRF deal structure is a complex entanglement of subsidiary companies, limited partnerships, parent corporations, contracts, letters of credit, performance guarantees, etc. Although the deal structure of the OLC P3 might suggest that it, with some extra government bargaining power, might approach the fuller corporate liability of the corporate finance model presented in Figure 13, it will not. The LOCs that make up for the mock equity stakes taken in P3 project companies are simply pledges that still do not change the underlying limited liability nature (and purpose) of the nonrecourse relationship between P3 project company and firm. While rating agencies and lenders recognize this (and accordingly demand a risk premium), governments either do not, or, have seen reservations stifled by the will to P3.

Irrelevance of the irrelevance proposition

The possibilities of NRF in a P3-willing climate show that P3 legal and transaction structures are eminently relevant to firms' investment decisions . P3s are an example of the irrelevance of the *debt irrelevance proposition* of Modigliani and Miller (1958) in the face of market imperfections – specifically corporate taxes on profits, although others include bankruptcy

distress costs, and asymmetric information between firms and lenders. Value is, in fact, created for the firm by leveraging when interests payments on debt are deductible. There, the value of the firm increases by the present value of the tax shield. The trade-off theory of capital structure (tax savings due to additional leveraging versus costs to equity holders of financial distress) is then what becomes applicable to P3s. In the NRF deal structure used in P3s, that trade-off is specifically between borrowing costs and corporate asset risk exposure. And yet, that trade-off towards the debt tax shield of high leveraging is not actually faced, since governments incur the higher borrowing costs through P3 fees and since asset risk exposure is limited by NRF deal structure. This is central to the will to P3 and to the reason why risk is not transferred by P3s, but is instead endogenous to them.[lxxii]

Accounting for P3s – preponderance of risks, de facto ownership

The undoing of the myth of risk transfer is substantially aided by the substantive treatments of P3 leases as capital leases by public sector accounting practice. The growing accounting treatment of P3s underscore that the no more of the risks transferable through ASD can be transferred through P3s. Seeing P3s leases as capital leases iterates that the risk, rewards, and responsibilities associated with immutable ownership have not been transferred.

Exit off-balance sheet accounting treatment of P3 leases

Although having faded as serious pro-P3 argumentation, off-balance sheet debt was a stated motivation for P3s. That off-balance sheet treatment meets the debt management (or perception) needs of governments has been discussed as being a counterpart to the tax shield benefits of P3s to firms. For the Abbotsford AHCC, the government decision was, in fact, swayed towards a "Design Build Finance Operate" (P3) from "Design Build Operate" (ASD) by the potential for off-balance sheet treatment. Despite mention in the decision transcript shown in Figure 19 of reasons of additional risk transfer, there are, of course, no "additional mechanisms for risk transfer due to the private investment and ownership position" for two reasons: First, the government was the primary equity contributor through regional health authority. Second, typical to P3s, the deal was very highly leveraged, and even the low equity stakes were not true equity, but subordinated debt.

Characteristics	Design Build	Design Build Operate	Design Build Finance Operate
1. Length of partnership	Short	Med-long	Long
2. Long term interests of private and public sector aligned. Is the private sector responsible financially incented past construction phase?	No	Yes	Yes
3. Is there a trade off between initial capital investments against operational needs? For instance is there an incentive to put in more expensive floors during construction because they are more durable and/or easier to clean?	Possible	Likely	Likely
4. Does the private sector fund shortfalls during construction?	Yes, depending on contract terms	Yes, depending on contract terms	Yes
5. Is there scope for innovative design?	Yes	Yes	Yes
6. Is there scope for alternative use? Is the opportunity to use the facilities for purposes other than just a hospital, e.g. retail space	Yes	Yes	Yes
7. How much potential for risk transfer is there from the public sector to the private sector?	High for construction risks. Low for operating period risks with potentially increased risks to the public sector.	High for construction risks; High for operating period risks	High for construction and operating period risks, with additional mechanisms for risk transfer due to the private investment and ownership position.
8. Is there a potential for off balance sheet treatment?	No	No	Yes

Figure 19 Off-balance sheet potential drove AHCC P3 decision[lxxiii]

The premise underlying off-balance sheet treatment is that of shifting debt to operating expenses – that instead of paying for capital infrastructure for services (which would be seen as debt), government would pay through service contracts for service delivery (which would be seen as operating expenses). Magically, on-balance sheet debt became off-balance sheet service contracts. P3s became a magic wand with which governments could limit apparent deficits without being seen to have limited their provision of public works. This other side of the balance sheet is that P3s became the magic want with which firms – through the tax shield – realize higher rent extraction in their context of imperfectly competitive markets.

Be it sawing folks in half, pulling rabbits out of hats, or making thing disappear, a magician's sleight of hand is meant to beguile a deeply engaged audience so as to elicit applause, which, in turn, increases the likelihood of continued operation in the magic business. Be it cutting debt, creating apparent value for money, or making risks vanish, the political gains from the sleight of

hand (or sleight of ledger) of off-balance sheet accounting of what is plain debt is likewise meant to beguile. And yet, who has the audience been?

Rating agencies such as Standard & Poor's (S&P) have not been fooled. In their consideration of government credit quality, S&P consolidates onto their notion of government balance sheets the government debt associated with P3 that do not entail the removal of public support for assets or service delivery. Indeed, the centrality of substantive asset or service ownership central to considerations of rating agencies is linked through the notion of residual control risk, immutably associated with ownership, to notion of preponderance of risk central to the considerations of solidifying public sector accounting practice.[lxxiv]

Solidifying accounting treatments of P3 leases as capital leases – and therefore as on-balance sheet debt – leaves no doubt that if accountants were ever deluded (which is doubtful and disrespectful), they are not anymore. Non-P3 approaches to public works procurement, while most plausibly entailing ASD for delivery, entail solely government debt financing. While still seeing government debt financing, P3 approaches see governments lease back public works that were financed, built, and operated by the private sector. Everything else (design, costs, quality of service, etc.) being equal, the issue becomes that of debt servicing versus lease payments. In substance, a government's debt servicing obligation is not different from a long-term lease obligation with subsequent ownership transfer. Accounting guidelines, recommendations, and standards underscore this by increasingly imploring that P3 leases be treated as capital leases.

P3 Leases: Capital Leases or Operating Leases?

The following discussion outlines the difference between capital leases and operating leases, the accounting conditions that discriminate the one from the other, the repercussions on perceptions of a government's debt load, and the role leasing has played in P3 processes. A

capital lease (or finance lease) is one where the lessee incurs an obligation to acquire an asset, with acquire connoting substantially all of the risk, rewards, and responsibilities associated with the asset. The on-balance sheet impact of a capital lease stems from accounting for the leased property as an asset with, correspondingly, the present value of the lease payments recorded as a liability. An operating lease, in contrast, sees lease payments accounted for not as liabilities, but simply recorded as incurred expenses in revenue and expense accounts.

Determining whether P3 leases represent capital leases or operating leases determines whether the risk repercussions of financing the delivered service are off-balance sheet or on-balance sheet. Indeed, while accountants (like rating agencies and construction contract lawyers) are clear about the real and fictional ramifications of PFI financing, and stand by them solidly in their standards and guidelines, those who promote P3s through VfM assessments are more fluid.

Witness the rift between accounting treatment and VfM assessment practice. Who bears the preponderance of risks is the basis for the accounting treatment of P3 leases. And yet, VfM assessment practice will typically monetize transferred risk higher than retained risks. Moreover, a UK treasury technical note admits more than it had intended to when it states that

> [t]here are key differences between the risk analysis required for the PSC and that needed to determine accounting treatment … risk analysis in the PSC is solely used for determining value for money.[lxxv]

Australian accounting standards – ramifications for ownership in substance

In line with Canadian P3 procurement organizations, policies, and practices echoing those in the UK and Australia, Canadian accounting recommendations and guidelines echo those of the UK and Australia. In its succinct description of the difference between a capital lease (or finance lease) and an operating lease, the Australian Accounting Standard AAS17 "Accounting for Leases" stresses the different resulting implications for asset ownership in substance.

Who bears the risks and reaps the benefits is the underlying theme of AAS17. Under AAS17, a capital lease is defined to be a lease that "effectively transfers from the lessor to the lessee substantially all of the risks and benefits incident to ownership of the leased property". An operating lease is correspondingly defined as a lease "under which the lessor retains substantially all of the risks and benefits incident to the ownership of the leased property". In its focus on the economic substance of the relationship rather than its administrative, technical, or legal form, an Australian guide to accounting for P3 transactions standard further outlines what such "risks and benefits" are.

> [The risks are] those associated with unsatisfactory performance, obsolescence, idle capacity, losses in realisable value and uninsured damage or condemnation of the property; the benefits include those obtainable from use of the property or gains in realisable value[lxxvi]

Here, discriminating a capital lease from an operating lease hinges on aspects of a leased asset's eventual formal ownership, the extent to which a lease's duration covers an asset's economic lifetime, and the extent to which lease payments cover the full value of the asset.

Academic trade-off between value for money and off-balance sheet debt

The South Australian government guidelines on P3s raises the issue of there being a trade-off between achieving the consideration of a lease as an operating lease – that is, so that debt may be booked off balance sheet – and achieving value for money:

> Agencies should keep in mind that there is a fundamental tension between meeting the requirements [of "Australian Accounting Standard 17 Accounting for Leases (AAS17)"] for operating leases and achieving value for money. The fundamental objective of the partnerships procurement process is to achieve an efficient allocation of risk, not simply to transfer as much risk as possible in order to achieve an operating lease classification.[lxxvii]

While this trade-off is true in theory, it is academic in practice. For there to be such a trade-off, it would have to be plausible that all of the 3Rs implicit to ownership could be transferred. Even if there were no responsibilities residing immutably with governments, the uninsurables of force

majeur would prevent the private sector from accepting such risks. Moreover, as has been discussed, it suggests a causal role of PFI financing in the achievement of optimal risk transfer.

In Canada, the discrimination between capital leases and operating leases is informed by Accounting Standards Board recommendations from the Canadian Institute of Chartered Accountants (CICA) and by policy guidelines from the Public Sector Accounting Board (PSAB). The CICA recommendations aim to discern whether substantially all of the 3Rs of ownership are transferred to the lessee (in P3s, the government) at the beginning of the lease. The PSAB guidelines add criteria by which underlying leased assets are deemed government capital assets.

Canada's CICA sees no risk transfer through leases substantively similar to ownership

The CICA recommend that all of the 3Rs of ownership reside with the lessee if one or more of three conditions are met. The condition of ownership by the lessee of the underlying asset is met when there is reasonable assurance that the lessee will obtain ownership by the end of the lease, when the terms of the lease result in ownership transfer, or when there is a bargain purchase option. The condition of duration is met if the lease term applies to a major portion (usually 75% or more) of the asset's economic life. The condition of investment recovery is met if the present value of the minimum lease payments is substantially all (usually 90% or more) of the cost, or fair value of the asset. Even further, if the 3Rs associated with the asset have been substantially transferred to the lessee through the lease regardless of any of the three conditions having been met, then the CICA recommends a lease be considered a capital lease. The third condition calls into question the existence P3 leases. Why would one enter a lease arrangement if, given the term, the costs of the lease are the same as the costs of ownership. That is, how is the lease any different in substance from ownership?[lxxviii]

Canada's PSAB guidelines link immutable risks with substantive ownership

The PSAB guidelines add criteria by which leases are effectively considered tangible capital assets if the three CICA conditions have not specifically been met. That is, the PSAB guides a much broader, substantive consideration of ownership through a deeper examination of the 3Rs. The identification of immutable risks with substantive asset ownership in the PSAB guidelines is the strongest support from accounting treatments of P3 leases on the impossibility of risk transfer for those risks lodged with ownership.

Firstly, if there is not an alternate use of the asset other than that for which the government is using it, or if conversion of the asset to support another use would require a significant outlay, then substantive ownership of the asset is accorded to the government. Secondly, government control over the idle capacity or use of the asset is considered indicative of one of the benefits or rewards – but arguably also responsibilities – immutably lodged with ownership. Thirdly, government ownership or retention of control of the underlying land is likewise seen to confer government ownership of the asset. Where there is smoke there is fire, and where there are immutable rewards or responsibilities, an accounting perspective sees substantive asset ownership. That is, the PSAB guidelines specifically link risk to ownership.

The immutable risks that ownership brings are explicitly identified by the PSAB as tests own substantive ownership to guide their accounting treatment of P3 leases as capital leases. Governments bearing financing risks (through transfers, loans, or guarantees) are indicative of substantive ownership (and here, even the tax shield, let alone outright credit guarantees could be read as the government bearing such risks). Of course, "construction risk" (timely completion and availability to specifications) and "operating risk" (maintenance and maintained availability) have long been transferred to the private sector through standard ASD contract clauses.

The PSAB notes various residual or retained risks being indicative of capital leases, and, correspondingly, of government ownership. P3s exude many of them: Termination clauses in P3 concession agreements are "penalties on exit agreement". Government bearing inflation and interest rate risks are "residual loss/gain" and "business loss risks". The transfer of ownership and its obligations is "transfer of asset". Government responsibility for environmental damage and/or delays stemming from permit issuance is "environmental liability".

PSAB guidelines also note "demand risk" residing with governments as indicative of their substantive ownership of assets. Evidence is found in P3 procurement processes where would-be proponents shy away from P3s that would lodge "demand risk" with them. These include those that confer the toll-levying privileges or have payments linked to demand, to usage, through shadow tolls. While demand for health care might be so inelastic, new bridge or road infrastructure evidently is not. Finally, somewhat theologically, with God or Gods evidently having cut deals to transfer his, her, or their culpability for the damages of force majeur to governments, that governments bear the risks of "uninsured damage" is also indicative of substantive ownership.

So much off-balance sheet treatment / So much for risk transfer

In sum, accounting recommendations and guidelines have frustrated the ability for P3s to be politically or ideologically motivated by concerns of showing lower apparent debt. They do harmonize with the perceptions regarding risks of lenders and rating agencies. Very simply, when insufficiently and not substantially transferred, the 3Rs of the 3Rs of ownership underscore that the government – materially, despite any leasing arrangement – has purchased the asset, has bought it for use over its full economic life, and has paid in full for it. Indeed, the OLC P3 sees an on-balance sheet accounting treatment.

> The William R. Bennett Bridge project [OLC P3] will be treated as an asset by the British Columbia Transportation Financing Authority and consolidated into the financial statements of the Province. The performance payments will be considered an obligation, with the component of the performance payments related to capital costs treated as debt by the British Columbia Transportation Financing Authority and consolidated into the financial statements of the Province. Upon completion of construction, the recorded book value of the project will be amortized over 40 years for bridge structures and highway roadbed and over 15 years for paving, fencing, signage, traffic control equipment and most other assets attached to the project.[lxxix]

Much ado about nothing? Hardly, for the demise of off-balance sheet accounting treatment of P3s is damning for the notion that P3s result in risk transfer to the private sector. The accounting treatment as capital leases of P3 leases iterates that the 3Rs associated with ownership have not been transferred. That the 3Rs have not been transferred is more directly admitted to when P3s are even more directly booked as PFI+ASD – that is, as accounting standards implore, without a lease arrangement's veil of ownership transfer.

Interests, bargaining powers, and risk avoidance

Partnership, what partnership?

This section addresses the interests, bargaining powers, risk avoidance strategies of parties in ASD, which by simple extension, despite the addition of PFI, applies to parties in P3s (in PFI+ASD). Advocates of P3s extol the notion of a P3 being a partnership between the government and the private sector. Is such a notion valid? As opposed to partnering towards common goals and shared reciprocal interests, P3 relationships, being extensively formalized in contracts embody a strategic, if not adversarial relationship. Even a mutually beneficial relationship does not necessarily have common goals. Consider the substantive consideration of a partnership in the accounting guidelines of the BC government.

> [A partnership is a] contractual arrangement between the government and a party or parties outside of the financial reporting entity that has all of the following characteristics:
>
> a) the partners co-operate toward achieving significant clearly defined common goals;
>
> b) the partners make a financial investment in the government partnership;
>
> c) the partners share control of decisions related to the financial and operating policies of the government partnership on an ongoing basis; and
>
> d) the partners share, on an equitable basis, the significant risks and benefits associated with the operations of the government partnership.[lxxx]

Again, attributes of partnerships are those of common interest – shared rewards, risks, and responsibilities. In contrast, attributes of complementary interests typify P3 relationships – maximizing individual rewards, of minimizing individual risks, and of devolving individual responsibility. Such attributes are found at the intersection of respective interests and bargaining powers extensively formalized by P3 concession agreements.

Florentine, not Paretian optimality of P3 risk transfer

Although P3 advocates are probably unaware of what truly underlies the will to P3, their modus operandi to assert it is to dazzle with communications propaganda dressed up as

economic rationale. With the motivations of off-balance sheet debt having been snubbed by stricter accounting treatments, and with efficiency or of innovation too exciting for mundane construction projects, P3 advocates look elsewhere for justifications. Optimal risk transfer fits the bill because of its intangibility and its reference to a monolithic public model for provision. As witnessed by current industry and academic writing on P3s, that PFI financing is causal to optimal risk transfer has been a successful seduction technique.[lxxxi]

Consider two possible sets of conditions for PFI financing to be causal to optimal risk transfer. First, if neither the alleged guarantees on equity awarded to P3 project companies nor the government's bearing of the extra costs of PFI financing through P3 fees existed. Second, if political ideology or the market power of EPC and O&M firms prevented governments from bargaining for the same construction contract law clauses for risk abatement that privately procured, but non-PFI financed approaches long have used. It may be that only the second holds. Nevertheless, consider the following diagram from the UK guide to constructing a PSC on optimal risk transfer – a document that this paper considers to have lived on in infamy.

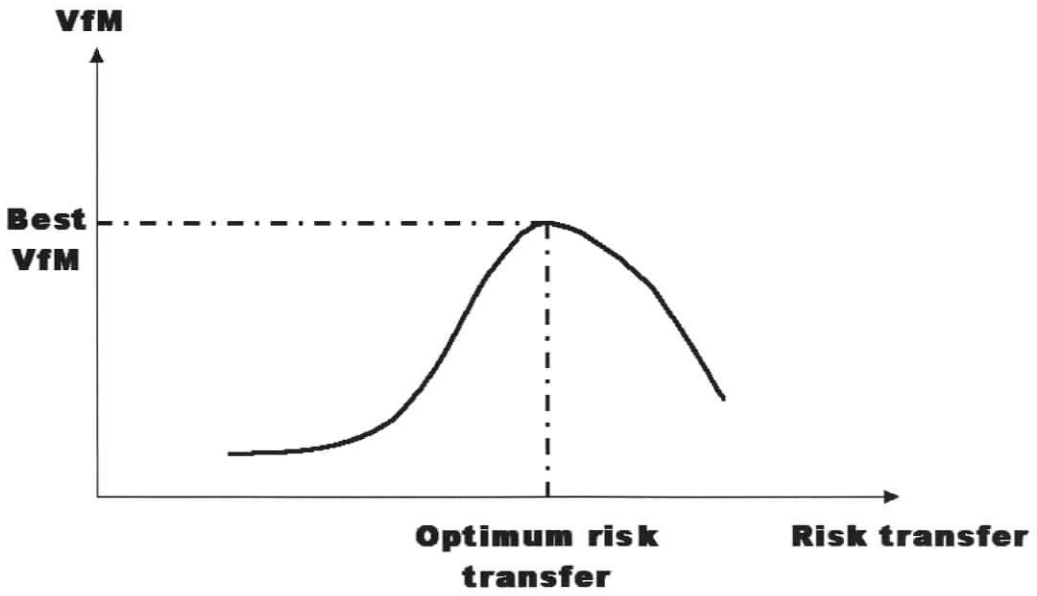

Figure 20 Apparently optimal risk transfer (attributable to PFI financing?)[lxxxii]

And yet, the optimality of risk transfer in P3s is hardly Paretian. It is doubly Florentine – Machiavellian in its achievement through hushed means-ends scheming and flowery in its supporting communications paraphernalia.[lxxxiii]

> The partnership model is designed to capture the strengths of both the public and private sectors, recognizing that private companies have always played a part in delivering infrastructure such as roads, bridges and other facilities. Key differences between the public private partnership approach and traditional project procurement [assumption of monolithic public provision] are the inclusion of performance based payments, and the transfer of many of the risks inherent in capital projects, such as construction schedule, to the private sector [denial of construction contract law to abate risks]. Of particular importance is that the projects are structured on a whole life cycle costing basis [use of present value calculations]; this results in achieving efficiencies through the integration of both capital and operating costs [insistence on bundling].[lxxxiv]

Interests and risk avoidance strategies of P3 project participants

Attempting to avoid risks, to abdicate responsibilities, and to accrue rewards (most banally of the debt tax shield) is the rational operative strategy by P3 proponents. While such behavioural preferences are not strange to economic actors, in general, their poignancy stems from the ability of actors to influence outcomes. Less than competitive markets for public works contractors proffer P3 proponents market power. The resultant bargaining power works in tandem with political ideology to realize the will to P3. Construction contract law provides guidance as to the particular interests of bargaining parties and the specific means to abate risk. The following discussion briefly outlines parties involved on the private side of P3s, their respective interests, and their respective strategies for abating (or withstanding others' attempts to abate risks). The dominant theme is that P3 project participants, to protect their interests and avoid liabilities, aim to shift risk to other project participants, and do so by bargaining for various mechanisms. The upshot is pertinent to why it is unlikely that if P3s do in fact uniquely bring bundling to ASD contracts that was not already there through the defined role of the general contractors that that bundling leads to any more efficient contracts than that the government could themselves write.

In a typical P3 project, the public entity (government) enters into a concession agreement with the P3 project company to realize some public works in question. The P3 project company finances its realization of the project through lenders, who are appealed to with a combination of the promise of corporations having staked some equity, through any financing guarantees, but primarily through the promise of debt-servicing enabled by the project asset, the flow of funds. The flow of funds arises from the public entity, or, in the case of user fees, the users themselves. The interests of the various involved parties must be reconciled with one another for the contracts to be bankable, for the P3 project to proceed. A selection of such interests and their ramifications on risk avoidance are described in the following, which has been informed by the contribution to the use of construction contract law in P3 of Sanders and Dew (2005).[lxxxv]

Between Public Entity and P3 Project Company

P3s are often premised on the notion of increased value for money as a result of the cost savings associated with risk transfer from the public entity to the P3 project company. That is, for public acceptability, P3s bank on the expectation from the public that the private sector is both more willing and more able to bear greater risks than the public entity. Here, however, incentives counter such expectations. That is, relative to ASD, with the immutable 3Rs, and given endogenous credit risk, what risks is the public entity alleviated?

Although the equity-staking sponsors are presumed to act as entrepreneurs and bear equity risk in exchange for returns, such offensive risk taking behaviour is tempered – if not undermined – by rational risk avoidance (and by the use of subordinated debt as equity). That is, the P3 project company will aim to push that risk assumed from the public entity downwards, down to its EPC and O&M contractors – but more realistically, since the P3 project company is just a limited liability incarnation of them, further downwards to its various subcontractors.

Between Project Company, Equity Partners, and Lenders

The primary interest of mock equity partners is to limit the liability of the sponsoring EPC and O&M firm behind them. As has been discussed, they function simply as liability shields in the NRF deal structures of P3s that allow firms to garner tax shields by booking the PFI debt incurred by their P3 project companies. Of course, firms also wish to minimize the risks their minimum equity stakes are exposed to by either financing risk or the risks addressable in the complete contracting realm of public works procurement such as availability risks as potentially asserted through completion guarantees.

As has been discussed, of primary interest to lenders is liquidity support – the debt servicing capability of the P3 project company. It is therefore in the interest of the lender to demand for both a concession agreement and subsequent agreements between project company and its contractors that allocates risks such to have minimal likely effect on the P3 project company's debt servicing ability. The lender will press for the engineering and construction risks of timely completion and acceptable quality to be pushed down the EPC contractor, and for the risk related to performance and quality of service to be pushed down to the O&M contractor. The lender will demand that contractors are experienced and credit worthy, and will want liquidated damages specified from the contractors for any failure to delivery the project as specified.

Gap risks falling back on governments

Not all attempts at risk abatement in contract negotiations will be accepted by contractors – especially not the inestimable or uninsurable. The gap between risks borne by parties is the gap risk. Indeed, owing to an owner's residual control rights, governments bear gap risks.[lxxxvi]

EPC and O&M contractor and sub-contractors

A discussion of the interests of the EPC contractor bares the weakness of the argument of P3 advocates that private sector involvement in the provision of public works assures innovation,

the use of novel technologies in a project's implementation. Would the EPC contractor have any incentive to employ novel technologies? Scale economies (of knowledge and other resources) would suggest that EPC contractors would want to leverage past experience.[lxxxvii]

Of the O&M contractor's interests, one is to minimize the risks of not being able to successfully operate the project – of being held liable for loss of revenue for the P3 project company and, by extension, for the lender. Its strategies for risk mitigation are, on the one hand, constant appraisal of its operations so that there is no question of its diligence, and, on the other, bargaining for the highest possible standards of design and construction. The first adds costs to O&M, which, if accepted, will be passed on through the P3 project company to the public entity. The second is countered by the bargaining position of the P3 project company, who aims to minimize EPC costs, but will likewise pass on such accepted additional costs to the public entity. The other of the O&M contractor's interests is concern for the profitability of the O&M services provided, of the outputs. Here, an interest in operating cost certainty goes hand in hand with that for flexibility in the costs of the inputs – those purchased from subcontractors and suppliers.

As to subcontractors and suppliers, their roles in P3s do not differ substantially from those under ASD. If they have any bargaining power, subcontractors and suppliers will press for certainty in the returns to their provided services. Dependant on the input demands make of them by O&M contractors, which is ultimately dependant on the demand by the public entity for the project delivered, subcontractors and suppliers will bargain for clauses allowing for input prices to be raised if demand falls. Conversely, while O&M contractors will seek clauses that allow them to reduce demand for input supply as it suits them, subcontractors and suppliers will seek the ability to limit supply if it suits them, despite demand.

The proceeding paragraphs' suggestions of autonomous bargaining units is somewhat farcical. EPC and O&M contractors, and P3 project companies, and equity partners are all generally various subsidiaries or limited liability incarnations of single EPC firms. As such, there are no multiple theatres of battle for P3 contracting terms between autonomous, independently motivated parties. Towards bankable P3 contracts there are the primary negotiators of government, EPC firms, and private market lenders. Any bargaining with subcontractors and suppliers are as they had been with ASD. On the margin in P3 deal-making – namely profit margin – are the literal entrepreneurs (*entre* – between; *prener* – to take) of such consultants as Macquarie, Ernst and Young, and PriceWaterhouseCoopers. These notably work both sides – governments (as a P3 advisor) or firms (partnering with a P3 proponent).

Labour

Labour is notable by its absence from much of the P3-specific literature describing the players in the P3 contracting process. Indeed, suppliers are often ultimately suppliers of labour – human beings, to be sure. Do P3s somehow provide the illusion of distance for right-of-centre governments (or their agencies or authorities) to restructure public sector labour contracts?[lxxxviii]

Risk premiums, the CAPM, and P3 endogenous risk

Whence the risk premium on P3 loans?

If transferable risk had long been transferred in ASD and if non-transferable risks reside, by definition immutably with asset owners through residual control risk and its attendant 3Rs, what risk transfer has been achieved incrementally by a P3 arrangement? If risks are factored into borrowing rates, a disturbing question is that the relatively higher cost of P3 borrowing. What is the source of or justification for the risk premium? What is it in the structure of a P3 that has given rise to incrementally higher borrowing costs? What has changed is that ASD public works procurement has been restructured around PFI. Overwhelmingly, the difference is PFI financing.

In PFI, it is not simply that EPC and O&M firms themselves issue debt to secure their tax shield as would be the case with corporate finance for PFI. Even this would see the endogeneity of higher borrowing costs to PFI. Recall the "AA/Stable/A-1+" rating of BC against the "BB/+ve" (now BBB) rating of SNC Lavalin, an EPC and O&M firm for several public works projects. Instead, a tax shield is pursued with more limited corporate asset exposure through NRF deal structures, through having a limited liability P3 project company issue debt.

As has been discussed, pro-P3 literature contests the validity of the argument that government financing is cheaper than private financing. In contesting lower government borrowing rates, or suggesting that risks are not properly priced, what is implicitly contested is the validity of government to pool risk so as to be afforded near risk-free interest rates.

CAPM and a government's risk-free cost of borrowing

The idea that higher P3 borrowing costs are endogenous to P3s and their deal structure can be pursued through the capital assets pricing model (CAPM). The CAPM deconstructs borrowing rates into a risk-free rate, R_f, and a market risk premium.

$$R_a = R_f + \beta_a \bullet (R_m - R_m)$$

In the CAPM, the rate of interest charged, the cost of capital, R_a, sees a risk premium added to R_f. The risk premium for the asset is specified relative to a market risk premium, $R_m - R_f$, which is how much capital markets reward investments correlated with well informed and well diversified investments in the nevertheless risky market, R_m, over risk-free investments. A key component of the CAPM is the asset beta, β_a, which is the degree to which the returns of the underlying asset are expected to correlate with the variance of returns of the market – that is, to what extent asset risks correlate with market risks.

That government debt is more favourably rated than corporate debt stems from the government being seen as being more a less risky investment – but this goes beyond taxation powers. By borrowing for general use, uses whose risks are not all correlated, governments pool risks, which lowers expected losses. Moreover, the concern of stable economies for their reputation with respect to capital markets plays an important role in rating their debt.

Consider the CAPM in light of the (nearly) risk-free cost of capital of a government – that is, of R_f being essentially the rate of interest on long-term government debt. Here, $R_a = R_f$ because either $R_m = R_f$ or $\beta_a = 0$. In its suggestion that the market offers no difference in risk-return profile than investments in government bonds, the former is unlikely. Empirically, it also goes against the ebb and flow of investment funds between capital and bond markets.[lxxxix]

Furthermore, that governments jointly raise capital for a portfolio of what are essentially essential services projects (roads, bridges, hospitals, health care, etc.) means by definition that they are undertaken – and paid for – regardless of the ups or downs affecting market investments. Lastly, an available tax base of citizens supports the notion that taxes will provide for debt servicing despite the variance of returns of capital market investments. Such arguments

support the notion that the joint asset beta, β_a, of the government is effectively zero, with the result that the government's borrowing rate is the risk-free rate.

Applications of the CAPM to P3s

Grout (2005) follows up discussions on the problems of P3 VfM assessments with a theoretical application of the CAPM to the problem of determining the PSDR. And yet, the discussion of P3 VfM assessments in Grout (2005) offers little. This is neither the fault of not having found a singularly appropriate discount rate, nor of lacking a recommendation for sensitivity analysis to be applied over a range of rates. Instead, by fixating the discount rate, Grout (2005), like others, falls tragically for the structure and sincerity of VfM assessments.

> The central feature of a PPP is that the public sector purchases a flow of service rather than building or procuring the physical assets and employing the personnel. The archetypical PPP takes the form of a DBFO project, where a private sector company or consortium designs, builds, finances and operates and sells the final service to the public sector or to the public under a government concession. PPPs almost always involve transfer of risk from the public to the private sector as the core incentive mechanism.[xc]

More concerning in Grout (2005) is the conception of P3s to uniquely contribute contracting out. Not considering ASD to the most plausible basecase procurement scenario, such that the difference is overwhelmingly PFI, is fantastical. Too abstracted from P3 NRF deal structures and its the tax shield motivations, and insufficiently critical of VfM assessments such that the notion of risk transfer incremental to ASD is bought into, Grout (2005) is typical of academic analytic contributions to the P3 discourse.

Incomplete Contracting and Non-non-transferable risks

Long-term uncertainties and such non-culpables as force majeur make the contributions of incomplete contracting pertinent to public works procurement. There, in lieu of being able to contract around all liabilities, ownership matters. Ownership confers residual ownership rights that bring with them the 3Rs of risks, responsibilities, and rewards. These reside ultimately and immutably with the public as owners, through their representative governments. Resultantly, there are non-transferable risks. The limited liabilities introduced by the NRF deal structure of P3s introduce uncertainties that make the incomplete contracting realm even more pertinent.

Can all contingencies relevant to contracting parties be specified? Writing on incomplete contracts and renegotiations (the latter a source of uncertainty pertinent to P3s in the notion of re-financing), Hart and Moore (1988) note that

> When drawing up a contract, it is often impracticable for the parties to specify all the relevant contingencies. In particular, they may be unable to describe the states of the world in enough detail that an outsider (the courts) could later verify which state had occurred, and so the contract will be complete.[xci]

Hart and Moore (1998) builds on the literatures of property rights ("that an owner has residual control rights") and of mechanism design (imposition of behaviour-correcting incentives) to differentiate the complete contracting realm from that of incomplete contracting. Unfortunately, the mathematical model proposed to rigorously present the foundations of incomplete contracting is far too abstracted from the prosaic practicalities and limited liabilities of NRF deal structures to have much relevance to the analysis of real P3s.[xcii]

To be fair, the clear thinking Hart and Moore (1998) does contribute underscores issues of incomplete contracting in P3s by noting that contracts can be said to be incomplete in the sense of there being limited possibilities for mechanism design. Contracts are incomplete,

> if parties would like to add contingent clauses, but are prevented from doing so by the fact that the state of nature cannot be verified (or because states are too expensive to describe them *ex ante*).[xciii]

In P3 terms, this is the extent to which risk transfer is possible. Recall that this paper suggested that well bargained for and well asserted ASD contracts transferred any transferable risks. That is, construction contract law has long designed the mechanisms for risk abatement in public works procurement. In well bargained ASD projects governments would have extensively used such means in the public's interest. Moreover, although perhaps simply fortunate semantics, the word "prevented" suggests the influence of property rights and notion that some risks cannot be contracted around. Certainly writing complete contracts is "prevented" by the impracticality or expense of undertaking exhaustive forecasts of future states of nature. This ties in well with the challenges to complete contracting of the long-timelines of P3 contracts. However, Hart and Moore (1998) do not explicitly recognize a government's immutable responsibilities as limiting complete contracting.

Hart (2003) is an attempted application to P3s that does consider a government's immutable responsibilities, but largely avoids the issue of PFI within P3s, which is lamentable because it could have questioned the instrumentality of the benefits of PFI to firms in contracting negotiations. Hart (2003) laments the complete contracting perspective of much of the privatization literature – its assumption that "imperfections arise solely because of moral hazard or asymmetric information". This lament is echoed in this paper as a criticism of the disregard of construction contract law, its use in long-standard ASD for public works procurement, and its already having completely having completely contracted around transferable risks.

> One of the insights of the recent literature on the firm is that, if the only imperfections are those arising from moral hazard or asymmetric information, organizational form--including ownership and firm boundaries--does not matter: an owner has no special power or rights since everything is specified in an initial contract (at least among the things that can ever be specified). In contrast, ownership does matter when contracts are incomplete: the owner of an asset or firm can then make

> all decisions concerning the asset or firm that are not included in an initial contract (the owner has "residual control rights").
>
> Applying this insight to the privatization context yields the conclusion that in a complete contracting world the government does not need to own a firm to control its behavior: any goals – economic or otherwise – can be achieved via a detailed initial contract. However, if contracts are incomplete, as they are in practice, there is a case for the government to own an electricity company or prison since ownership gives the government special powers in the form of residual control rights.[xciv]

Despite the suggestion of applying these insights to P3s, Hart (2003) simply presents a model of bundling and unbundling that is informed by incomplete contracting. But bundling has long been achieved without PFI financing through ASD – through the general contractor, which by definition bundles tasks into a contract with an offtaker and subcontracts their realization to subcontractors. Although Hart (2003) assumes "that all provision is private," its understanding of what P3s are is at odds with the limited liability unification (or bundling) in P3 project companies of the limited equity stake subsidiaries of EPC and O&M companies. It is at odds with real P3 legal and transaction structures.

> I will take a key property of a PPP to be that facility construction and service provision are bundled, i.e., in the case of a prison the government contracts with a private party … to build and run the prison (the builder may then subcontract with someone else to run the prison). In contrast, under "conventional" provision, the government contracts with the builder to build the prison and then later on with another (private) party to run it.[xcv]

Resultantly, the model in Hart (2003) is not a model capable of presenting plausible choices in contemporary public works provision whose main contenders are ASD and PFI+ASD as P3s – the "To P3 or not to P3" decision in real-world procurement of large public works. Nor is it a model that applies incomplete contracting, property rights, mechanism design, and the NRF deal structures of P3s to investigate the limits of risk transfer in PFI+ASD relative to ASD. The model in Hart (2003) is instead a model applicable to choices between writing separate or joint EPC and O&M contracts in a so highly abstracted ASD world that governments specify neither design nor operational requirements such that only costs are the subjects of contracts.[xcvi]

And yet, however interesting to the theory of the firm matters such as bundling or unbundling are, P3s are bundled by construction. Bundling in P3s as being EPC and O&M firms (often one and the same) being jointly represented in a P3 project company has nothing to do with any means to improve social surplus. P3s are constructed to garner tax shields through issuing debt, and to beat the resultant trade-off between corporate asset risk and high borrowing costs.

Hart (2003) rather misses the point when suggesting that financing is only the "secondary" issue in P3s. His "(modest) benefit" – this paper suggests – is a disservice to the analysis of P3s as they are in practice, not abstract theory.

> One of the (modest) benefits of the current paper [Hart (2003)] is that it may shift attention from what seem to be secondary financing issues [in P3s] to what seems to be the central issue: (relative) contracting costs [arising from bundling versus unbundling].[xcvii]

It is not bundling that is the prime differentiator of P3s from ASD. Neither is it efficiency, innovation, *ex ante* competition, optimal risk transfer, nor any other purported benefits paraded by P3 advocates or confidently analyzed by academics. Other than the benefits of the PFI tax shield to EPC and O&M firms, P3s are instrumental to little relative to ASD except that which PFI brings – additional risks. These financial, credit, or default risks are well noted by rating agencies and lenders, quantified as higher borrowing rates, and borne by governments as higher P3 costs. Relative to ASD as the most plausible alternative procurement approach – simply contracting the private sector in design-build or design-build-operate contracts – P3s are overwhelmingly about the financing. Otherwise, P3s do not mean anything except for a re-branding of slight variants of hardly alternative ASD.[xcviii]

Conclusions

To P3 or not to P3. Or was there ever such a question?

This paper considered P3s to be incrementally different from plausible traditional approaches to public works procurement in its use of PFI – the addition to incremental public sector borrowing for the project of privately arranged project-specific financing. Privatization is not the issue in P3s, since public works for such infrastructure as roads, school, and hospital construction long been undertaken through ASD – contracting private sectors EPC (and, to a lesser extent) O&M firms. Nor was bundling considered to occur solely in P3s projects, but rather to be inherent to the role of general, main, or prime contractors in ASD projects. Any additional degree of bundling introduced by P3s is likely to be in service of the needs of structuring for PFI – namely to establish a P3 project company with among equity partners. Oftentimes, as with the Okanagan Lake Crossing P3, EPC and O&M firms are one and the same – SNC Lavalin, which is weighty enough to secure its own financing (indeed having its own financing arm). For other P3s, bundling of various contractors occurs to achieve the critical mass in P3 project companies required for appeals to capital markets.

As such, with plausible choices being *de facto* ASD versus P3 as PFI+ASD, what should be debated is the rationale for and impacts of PFI. What is the will to P3? What so-called "value for money" do they provide, and for whom? This paper found the will to P3 to lie in PFI's realization of a debt tax shield for EPC and O&M firms. P3s award EPC and O&M firms a debt tax shield without their having to face the trade-off between corporate asset risk exposure and borrowing costs, since in their use of NRF deal structures, P3s see higher borrowing costs accepted by governments in their acceptance of P3 costs. Indeed, analytical work stemming

from this thesis would include applications of differing valuations of a debt tax shield from financial economics to P3s.

With PFI, the most significant incremental impact of P3s is not optimal risk transfer to the private sector. Risks that can be abated, transferable risks, could long be abated through ASD's use of mechanisms of construction contract law. Risks that cannot be transferred stemmed from the immutable risks, rewards, and responsibilities that government residual control rights over public works assets assigns. Instead, risk is endogenous to P3s – with the credit risk of highly leveraged, limited liability P3 project companies being incident on governments through their acceptance of higher P3 borrowing costs.

What value for money in value for money assessments of P3s?

While this paper's ultimate focus was to consider the will to P3 given PFI as the incremental difference between P3 and plausible non-P3 options, the decision-making framework purportedly used in the "To P3 or not to P3" question were subject to a critical genealogy. Although more public relations or communications tool than a framework for serious *ex ante* comparative project assessment, the use of VfM assessments was analyzed against the tenets a fully issues-transparent CBA. The first thesis this paper offered was that there is little value for money in VfM assessments – not at least if a positive valuation is given the integrity with which a project's relative contribution to social surplus is captured. A flawed basecase of pure public provision and invalid cost items support this thesis. This paper showed furthermore that VfM assessments, albeit unintentionally, bore insights into the will to P3. The result of the will to P3 being so strong is that *ex ante* comparative project assessment practice becomes a communications event rather than economic analysis. VfM assessments signal the efficacy of the will to P3, not the efficiency of P3s.

This paper's scrutiny of the validity of the cost items in VfM assessments of competitive neutrality and risk transfer made short work of first. Competitive neutrality monetizes the private sector's taking issue with the tax exemptions and apparent favoured status of government agencies in procurement processes. This paper's second thesis was that the effective penalization of non-P3 approaches of competitive neutrality represents not an item of increased social surplus, but simply a transfer between referent group members. It has no place in an efficiency-based consideration, such as VfM purports to be – unless a goal of P3s is to redistribute wealth to the private sector. Disappointing to economists would be the absence in VfM assessments of the valid efficiency item of their notion of the *cost of funds* – the aggregate "wedge" between supply and demand caused by taxation-financed expenditures.

What risk transfer relative to non-P3s?

The fourth thesis offered by this paper was that P3 risk transfer – that is, risk transfer over and above, or incremental to, the most plausible non-P3 alternative of well bargained-for ASD – is a myth. And yet, myths do capture our fascination. Perhaps this is the reason why myriad academic publications tout P3s as instrumental to efficient risk transfer? This fourth thesis was informed by a triangulation of the insights of economics, accountancy, and law. That is, the incomplete contracting realm of capital infrastructure projects with its importance of property rights and immutability of residual control rights, accountancy standards rejecting the transfer in P3 lease arrangements of any substantive ownership of assets, and construction contract law codifying the interests of contractors to avoid risk.

In the realm of incomplete contracting – where non-assignable culpability (force majeur), limited liability partners, and long-timeline uncertainties thwart writing complete contracts – economics informs us that property rights do indeed matter. There, residual control rights

remain immutably with the government. As such, the 3Rs remain resident with the government after any efficient risk transfer has been undertaken – such standard construction contracting methods of fixed-price terms.

Through governments as their representatives, the citizenry-as-owners are at once the party responsible for the maintenance of the asset, the users benefiting from its rewards, and likewise the bearers of risks who pickup the pieces in the event of failures. Appealing to the notion of usage versus simply usury, this paper suggests that citizens are not investors beguiled into fronting money for a venture of under-assessed risks – as is implied by those perturbed by lower government lending rates – but rather owners-maintainers-users-financiers-underwriters. This often strangely or conveniently unrecognized notion was affirmed by firming accountancy standards that recognize not the formal, but the substantive ownership of assets – that is, discriminating between capital leases and operating leases.

Resultantly, this paper suggests that P3 leases see no substantive transfer of ownership – and therefore no transfer of the 3Rs aligned with residual ownership rights. Moreover, the contract-codified interest of each party is to avoid risk, to push it if not downstream then back to the government. Critically, that P3 concession agreements often guarantee project companies a return on equity by P3 concession agreements makes a mockery of the notion of uncertainty, of bearing risk, and of risk transfer. To restate this paper's fourth thesis: In the incomplete contracting realm of P3s where residual control rights and their attendant 3Rs reside immutably with the government as owner, P3s offer no incremental risk transfer over non-P3 options – at least not where standard ASD contracting means have been strongly negotiated into procurement contracts by governments willing to assert them.[xcix]

Risk transfer having some incremental value over the basecase does not stem from a valid comparison such ASD contracts, but from exploratory work on the P3 for the upgrade of the London Underground (LU) – again, simply from workshops estimating prior cost overruns for LU projects where

> [t]he considered professional advice was that the probability of the risk in the hands of historical public sector procurement is 30 per cent.[c]

This figure complements a lower value found in VfM assessments of ~20% of the NPV of PSC capital costs for the expected damage of transferable risks. Documenting the root of the risk transfer guesstimation and the continued use of the LU guesstimations in contemporary P3 VfM assessments is perhaps this paper's key achievement. Top up the PSC with 20%-30% is magical mystery of the valuation of P3 risk transfer.

But risks are not transferred because of a P3's PFI financing, but by from moving from pure public provision to ASD – with governments willing to bargain and assert long-standard construction contract clauses to change the incidence of risk. As such, the 20%-30% for risk transfer is a number that has lived on in infamy as "best practices" in the subsequent genealogy of P3 VfM assessments; it is inappropriate to the ASD versus PFI+ASD question germane to P3s. As such, the valuation of risk transfer in P3s is not puzzling in the sense of the *equity premium puzzle* (the puzzling size of the gap between equity and bond returns). It is puzzling in the sense of the "P3 premium puzzle" – whose inflated alliteration parallels that of inflated notions of risk transfer being attributable to P3 financing.

Discount Rate

This paper's third thesis was that the near Kabbalic debate over what the singular discount rate for VfM assessments gives damaging credence to the incredible. Indeed, *ceteris paribus* attention to a singularly appropriate discount rate for use in P3 VfM assessments is flawed by the

fact that all things are indeed the same. All things are either equally invalid (as in competitive neutrality and risk transfer) and or equally inconsiderate of the real factors driving P3 decision (political ideology and market power). Broad considerations of the will to P3 would yield the true impact of discount rates on the P3 decision to be insignificant.

Moreover, although self-respecting *ex ante* comparative project assessments would undertake sensitivity analysis over a range of rates, as forensic audits of VfM assessments have recently done, naïve credence to the incredible is still awarded. VfM assessments remain flawed at the core if the basecase insisted upon is still implausibility of pure public provision and if the cost items of risk transfer and competitive neutrality are still accepted.

Indeed a common theme by P3 advocates is to suggest that a government's lower relative cost of capital does not represent the full risks of the project. However, referent group taxpayers who incur debt are not simply investors, but also owners and users of the underlying asset. With ownership comes the 3Rs that follows from incomplete contracting, where property rights as residual control rights do matter. Moreover, government debt issues generally bundle the financing of various undertakings. This diversifies the non-systemic risks retained by its citizenry, such as those of force majeur impacting any given project, which when combined with immutable government responsibilities, is the crux of the incomplete contracting realm of P3s.

Finally, current insistence by P3 advocates on use as VfM assessment discount rate of the WACC of the single purpose vehicle P3 project firm was considered. Insistence on the WACC denies of the results of a lower borrowing rate of the risk-spreading entity known as government by which citizens implicitly contract together to bear risks, reap rewards, and accept responsibilities. The comparison between WACC and public sector borrowing rate is especially curious when the former is reduced towards the latter because of the tax shield provided to the

private sector at public cost – this to serve communications goals in response to uninformed P3 criticism insistent on quibbling about discount rates despite the more profound flaws in VfM assessements. Indeed, the recently released VfM assessment of the Kicking Horse Canyon P3 is allowed to further occlude the basis of the monetization of purported P3-causal risk transfer. But ultimately, rating agencies consider the full array of a government's liabilities (P3s and otherwise) – with the result that the public sector borrowing rate does of course factor in the various projects. Moreover, accountants amortize a P3's components over their various lifetime using the public sector discount rate. Again, those in the know do indeed know; those who do not quibble about discount rates.

The endogeneity of P3 debt's risk premium to P3 corporate structure

The fifth thesis offered by this paper was that risk is endogenous to the P3 approach – specifically with incremental risk represented by the risk premium on loans to P3 project companies relative to the effectively risk free rates charged governments on issues of general debt. That is, central to the rating of P3 bonds by rating agencies is an assessment of the implications of debt servicing of the NRF structure surrounding the limited liability, SPV form of the P3 project company itself. There, the P3 project company passes profits and most notably tax benefits upwards to EPC and O&M while keeping corporate asset risk exposure minimal.

As such, if P3s instrumentally bring anything to the table through their meeting of PFI and NRF, it is credit risk – and therefore higher borrowing rates, as evidenced by higher rates on P3 bond issues. Cynically, this is not a problem, because governments have been convinced to convince themselves to allow that risk, quantified by higher P3 borrowing rates, to be incident upon them through higher P3 project costs. As such, they finance a triumph over the trade-off between corporate asset risk and borrowing rates of EPC firms in their quest for a debt tax shield.

The endogeneity of P3 risk is further supported by repercussions of the "AAA" investment policies of conservative institutional lenders. Their requirement for various means to insure against this credit risk, to provide liquidity support, sees either insurance costs passed on to governments, or structures through which governments (expressly or implicitly) guarantee debt servicing – if not also returns to mock equity partners.

The economics of P3s lies in an economic approach

This paper lamented not only the essential lack of the economics of P3s, but also the essential lack of economics in P3 – this despite high-profile papers passing themselves off as the economics of P3s. Not simply is there no question answered by P3s as to the efficient or equitable allocation of resources motivating P3s, but the P3 discourse has lacked a structured analysis of what P3s are incremental to *de facto* ASD in public works. This paper has aimed not only to provide that analysis, but also to identify therein what founds the will to P3.

This ground for P3 deals is typified by NRF, by the legal minutiae of wrangled accords for risk abatement between construction industry powers and governments, by accounting detail and debt rating considerations, and by non-competitively infused and/or politically undermined bargaining powers. Overwhelmingly, academic papers do not identify P3s as PFI+ASD, do not compare P3s against ASD, and do not scrutinize the repercussions of their NRF deal structures for PFI. As such, they miss or avoid discussing the most fundamentally different increment P3s bring to public works procurement – PFI financing. Such papers are, however, successful in leveraging P3s for the theories, fields of study, or other interests of their authors.

The tax benefit, not risk transfer motivation of PFI in P3s

This paper's sixth thesis was that the will to P3 is rooted in realizing a debt tax shield for (the often one and the same) EPC and O&M firms without them having to face the trade-off between

corporate asset risk exposure and borrowing costs. Supporting this thesis was a deconstruction of the use of NRF for P3, and a comparison against the models of corporate finance inadvertently considered by most academic writing on P3s. If the demand side for P3s comprises the public merits advanced by P3 advocates, the supply-side for P3s are their largely untold benefits for EPC firms. This paper contributes that missing supply-side story of P3s – of the tax shield firms garner by writing off the interest payments on debt issued by their P3 project companies.

While limited partnerships used in P3 deal structures pass on only limited liability, they do pass on the *tax shield* of having incurred debt to make profits, higher cost debt financed by citizen taxpayers. The NRF deal structures used in P3s exposes euphemistic equity partners to only limited liability commensurate with their low stake of often only subordinated debt. These deal structures do, however, pass on the full tax benefits of having incurred debt. With higher borrowing costs being passed on to governments in general P3 costs, the tax shield is delivered without necessitating a trade-off between asset exposure and borrowing costs.

Recall that risk transfer having some incremental value (the ~20%-30% of PSC costs) stems not from a P3 versus ASD project, but from the privatization of O&M of the London Underground. Inspired by both this items invalidity, but given the tax shield impetus of P3s, this paper considers the risk transfer cost item in VfM assessments to provide a first estimate of the magnitude of the tax benefit transfer from citizen-taxpayers to the corporate taxpayers. That is, ~20%-30% of the NPV of the raw PSC is a first-cut estimate of the present value to firms of the tax shield of PFI debt over the course of their P3 concession agreement. More exact work would parse the tax shield's actual value from the value attributed to risk transfer, with the remainder being a good indication of the profits whose inflation relative to ASD profits P3s facilitated. As such, the valuation of risk transfer in VfM assessments performs a feat of transparency and

accountability one would not expect to arise from P3 advocates. Here, ironic reverence is displayed for the tenets of CBA.[ci]

This paper's critique of P3 VfM assessment practice and exposition of the repercussions on risk transfer of P3 legal and financial deal structures could spawn further research. One is to apply differing valuations of the debt tax shield from the literature of financial economics to P3s. Here, specifically, the mythical cost item of risk transfer in VfM assessments would be disassembled into a portion stemming from the tax shield's value to the firm, with the remainder being inflated cost estimates relative to a non-P3 financed procurement approach. A good start is to consider SNC Lavalin's separate accounting (in their annual reports) for their 16.77% stake in the Highway 407 P3. In 2005, this P3 which saw $50m in interest and other costs deducted from $70m gross margins to yield a but ~2% paid as well as a portable net loss.[cii]

Such work would not simply underscore this revelation of the source of the will to P3, which (with reference to other academic writing on P3s noted in this paper) is as much a political undertaking as it is truthful. The specifics are three-fold. First, academic writing on P3s would adopt as the plausible alternative to P3s simply a non-P3 financed option. Second, it would allow real P3 financial and legal deal structures to impinge on analyses. Third, it would therefore jettison the notion that P3 financing is causal to anything – let alone risk transfer – than an interest debt tax shield. Academic writing on P3 would then be able to divorce themselves from the framework of the arguments of P3 advocates. It would also then be able to maintain the objective distance and depth of analysis expected from work not simply adversarial. The paper aimed to balance the two – outlining a framework for the analysis of P3s, and the will to P3, based on their real legal and financial deal structures, and challenging stock justifications for P3 (including showing when less informed criticism of P3s tragically makes the case for P3s).

The shadowy shadow price of countermining pro-P3 ideology

What follows is the seventh and final thesis of this paper – a somewhat quantitative Marxian re-reading of competitive neutrality. This refers back to the context for P3s being imperfectly competitive markets and rent extraction therein being particularly augmented by the tax shield that PFI financing was designed for. What if competitive neutrality was considered not to be a confidently heralded sham of an efficiency adjustment, but, instead, as a measure of how much political ideological power and/or private sector market power would hypothetically be able to penalize governments for pursuing non-P3s options? Has market power so changed bargaining powers so as to strengthen the ability of firms, previously only ASD contractors, to reject formerly standard mechanisms for risk abatement? Has political pressure (or bureaucracy) so weakened government bargaining power that such clauses are contingent on offering PFI's tax benefits to firms and financial services profits to their financial services consorts?[ciii]

If so, then competitive neutrality would ironically have a valid place in VfM assessments as a consideration of the costs of agency costs (the undermining by political ideology or crippling by bureaucracy of government bargaining power) and of non-competitive markets in public infrastructure or service provision. Competitive neutrality can be read to be the shadow price (implicitly charged as a political cost by a non-competitive private sector) for not having facilitated PFI's tax benefits and consulting services profits. That is, competitive neutrality can be read to quantify the marginal weight of dominant political ideology and market power. This thesis of monetized market power and the political clout that flows from it is supported by a senior official at the BC Ministry of Finance – "Gotta offer some low-hangin' fruit!"[civ]

Value for money or monkey business?

To conclude, "Gotta offer some low-hangin' fruit!" suggests market power, political ideology, and their resultant relative bargaining powers that render P3s a *fait accompli* – both a compulsion and an inevitability. Let pass the suggestive Freudian resonances of compulsion. Pertinent to economic analyses are the definitively Marxian overtones of inevitability. Is the successful insistence on P3s – that is, PFI financing around long-standard ASD – a Marxian inevitability? If so, then re-reading of competitive neutrality as such monetizes this new inevitable institutional economic reality. However, when the absurd sense that P3 financing makes from the perspective of efficiency, the Marxian inevitability becomes less so that of Karl, but of Groucho, Chico, Harpo, and Zeppo. Are P3s value for money or monkey business?

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SNC Lavalin (2005), "Annual Report", http://www.snclavalin.com/pdf/current/2005/ra_e.pdf Accessed 06/06/2006.

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Treasury Board, Ministry of Finance, Province of British Columbia. Interview (name withheld). August 2005.

Treasury Taskforce Private Finance (1999), "How to construct a Public Sector Comparator", Technical Note No. 5, Her Majesty's Treasury (UK), http://www.hm-treasury.gov.uk/media/9d527/ppp_ttf_technote5.pdf Accessed 12/05/2005.

Treasury Taskforce Private Finance (2004), "Value for Money Assessment Guidance", Her Majesty's Treasury (UK), http://www.hm-treasury.gov.uk/media/95C/76/95C76F05-BCDC-D4B3-15DFDC2502B56ADC.pdf Accessed 05/11/2005.

Vaillancourt Rosenau, P. (ed) (200), *Public-Private Policy Partnerships*, Cambridge: MIT.

Wilkens, Michael (2002), "Credit Rating Issues Facing UK Infrastructure Projets", Standard & Poor's. http://www.actuaries.org.uk/files/finance_invest/national_inv_sem/Wilkins.ppt Accessed 21/11/2005.

Glossary

3Rs – the risks, rewards, responsibilities immutably associated with the residual control rights of asset ownership

AHCC – Abbotsford Hospital and Cancer Centre

ASD – alternate service delivery, a euphemism for the hardly alternative private sector provision of public infrastructure and services

BC – the Canadian Province of British Columbia

BC HEU – British Columbia Hospital Employees Union; disenfranchised by legislation allowing "soft FM" to be contracted to non-union workers, which is part of the reason P3s are made into a privatization issue instead of a financing issue

CAPM – capital assets pricing model; deconstructs borrowing rates in to the time value of money and a variously-sourced risk premium

CBA – cost-benefit analysis; as near a gold standard to comparative project assessment – especially when a plausible alternative project is considered as basecase such that the incremental cost or benefit contribution of the project-in-question are considered, when distributional issues are identified (and monetized) but not counted as impacting social surplus, and when monetization is based on more than imported rules of thumb

CGF – credit guarantee facility, a form of liquidity support

CICA – Canadian Institute of Chartered Accountants

CN – competitive neutrality; a cost added to a non-P3 approach in VfM assessments

DB – design-build

DBOM – design-build-operate-maintain

DIY – do-it-yourself

EPC – engineering, procurement, and construction; EPC firms on large public works projects do what general contractors do on smaller construction projects (SNC Lavalin, PCL Constructors, and Pieter Kiewit & Sons are notable firms involved in BC P3s)

FDB – finance-design-build

FDBOM – finance-design-build-operate-maintain

FM – facilities management (catering, janitorial, etc), aspects of a projects O&M

FOM – finance-operate-maintain

LOC – letter of credit, a form of liquidity support

LP – limited (liability) partnership, notably tax-transparent, but liability limiting

LU – London Underground; an early UK PFI (P3) project in which PWC established the framework for VfM assessments, including ~30% top-ups of the PSC for risk transfer based on cost-overruns in the broader construction industry

MCA – multi-criteria analysis

NRF – nonrecourse finance; deal structuring by which lenders have recourse only to the project company created to develop the project asset (to the revenue stream flowing to it), and by which (despite flow-through of taxation issues) neither project company nor sponsoring firms are liable for one another's debts; lender demands for liquidity support (for additional means to secure debt servicing) result from nonrecourse structuring

O&M (or OM) – operations and maintenance

OLC – Okanagan Lake Crossing; a transportation P3 in BC

P3 (or PPP) – public-private partnership; if it means anything beyond ASD re-branded (and it does to informed practioners such as credit rating agencies, government debt management branches, and construction contract lawyers), it means the structuring of ASD contracts around additional private financing

PBC – Partnerships British Columbia; a BC crown corporation that promotes P3s, and also marshals procurement processes (liasing between financial services firms that prepare VfM assessments, proponents bidding on projects, lawyers, and line Ministries)

PFI – Private Finance Initiative (as P3s are known in the UK); in this paper a placeholder for P3's addition of private finance to ASD

PSAB – Public Sector Accounting Board

PSC – Public Sector Comparator; the implausible basecase of pure public provision against which a P3 approach is purportedly compared in VfM assessments; decisively undermined by the 'rule of thumb' that adds ~25% of the NPV as risk transfer despite that limited transfer of completion risk (through fixed-price contracts) and performance (through adjustment contracts) being possible without a P3's addition of financing to ASD – unless simply the benefits of the P3 tax shield had to be thrown in

PSDR – public sector discount rate,

PWC – PriceWaterhouseCoopers

R&D – research and development

ROE – return on equity

ROI – return on investment

RoR – rate of return

S&P – Standard & Poors, a debt rating agency

SPE – special purpose entity, see SPV

SPV – special purpose vehicle, bankruptcy-remote, limited liability corporate structure in NRF used for P3 project company

VfM – value for money; relative cost-effectiveness or relative net social surplus of project approaches under comparison

WACC – weighted average cost of capital; profoundly affected by the tax shielding of the deductibility of interest on debt such as occurs in P3s, which, owing to its vicinity to the public sector borrowing rate, is why the project company's after-tax WACC is promoted as a suitable discount rate in the practice of P3 VfM assessments (despite their

Notes

[i] Long abstract: If *public-private partnerships* (P3s) represent anything beyond a re-branding of *alternate service delivery* (ASD) – the *de facto* approach for procuring public works from the private sector – then it is the inclusion of the *private financing initiative* (PFI) that differentiates P3s from plausible non-P3 approaches. With PFI financing then being the crucially different element, *the will to P3* is analyzed in light of real P3 legal and financial deal structures – namely, the limited liability structures of *nonrecourse finance* (NRF). There, the will to P3 reveals itself to be a *tax shield* for construction firms realized without their having to face the standard financing trade-off between corporate asset risk exposure and borrowing costs. Indeed, the credit risks of (highly leveraged, limited liability, yet tax-transparent) P3 project companies – monetized by lenders as higher borrowing costs – are ultimately incident on governments through their acceptance of higher P3 fees. Informed by the insights and considerations of risk rating agencies, of the complete and incomplete contracting realms of economics, of public sector accounting practice, and of construction contract law, claims are countered that P3s lead to any more risk transfer than ASD as sole plausible P3 alternative. A critical genealogy of P3 *value for money* (VfM) assessment practice reveals fundamental methodological flaws – an insistence on an implausible P3 alternative of pure public provision, on there being risk transfer incremental and causally linked to PFI financing, and on the assignment to the alternative of other invalid costs. The flawed VfM assessment framework is implicitly validated when a privatization issue is made of P3s, when magnitudes – and not existence – of cost items are debated, or simply when discount rates are quibbled with. Ironically, this sees the anti-P3 discord harmonize with the pro-P3 chorus to make the case of P3s.

[ii] "Alternate Service Delivery", Accounting Policy Research and Development Branch, Office of the Comptroller General, Ministry of Finance, Province of British Columbia, 2002. http://www.fin.gov.bc.ca/OCG/fras/altproc/asd.pdf Accessed 12/11/2005

[iii] "ef-dee-bom" in P3 parlance

[iv] Rachwalski (2004) considers some of these in the BC context they pertain to private sector involvement in realizing public infrastructure for advanced education.

[v] *Public-Private Policy Partnerships* (2000), Vaillancourt Rosenau, Pauline (ed.), Cambrdige: MIT, 2000.

[vi] De Bettignies, Jean-Etienne and Thomas W. Ross (2004), "The Economics of Public-Private Partnerships", *Canadian Public Policy*, XXX(2), 135-154.

[vii] *Ibid.*

[viii] Poschmann, Finn (2003), "Private Means to Public Ends: The Future of Public-Private Partnerships", 183, C.D. Howe Institute, Toronto, 2003. http://www.cdhowe.org/pdf/commentary_183.pdf Accessed 12/11/2005.

[ix] Cohn, Daniel (2004), "The Public-Private Partnership Fetish: Moving Beyond the Rhetoric".

[x] Engineering is conversely sidelined because of its necessarily mundane terrain – digging, dredging, and boring. *The Economics of Public Private Partnerships* (2005), Grimsey, Darrin and Mervyn K. Lewis (eds), *The International Library of Critical Writings in Economics*, 183, Northhampton (MA): Edward Elgar, 2005.

[xi] The contributions from outright P3 advocates and from the P3-agonized are excluded for their unbearable lightness of being.

[xii] The strengths of economic contributions to the P3 discourse are the discipline's internal rigour. So, too, are its weaknesses. The first is the lack of external rigour that arises when economics retreats from analyses of problems fraught with detail too banal for its abstractions. The second is paradoxically its internal rigour – when economists embark on insulated, exhaustive searches for truth as arises from select details. Economics can propose solid solutions to non-existent problems by overlooking key detail such as NRF deal structures, or of plausible baseline options to P3s being simply ASD. With P3s, the devil is in the details. It would hardly be economic imperialism for the economic approach to be applied to the P3s. And yet, the role of a P3-critical economist is unlikely to amount to more than that of a Cassandra-meets-Coleridge – to be the uninvited guest at the public-private wedding party of P3s and "to suffer the agony of foreknowledge combined with impotence to do anything about it". A vain task since those who press for P3s despite their underlying economics are as unlikely to wear egg on their faces as they are Albatrosses about their shoulders. Peoples, David and Janet Peoples (1994), *Twelve Monkeys* (production draft), http://scifiscripts.com/scripts/twelvemonkeys.txt Accessed 21/12/2005. Coleridge's *Rime of the Ancient Mariner.*

[xiii] Sen, Amartya (2000), "The Discipline of Cost-benefit Analysis", *The Journal of Legal Studies*, 29-2 "Cost-Benefit Analysis and Philosophical Perspectives", 931-952.

[xiv] It is not the fault of economics that CBA is viewed with either suspicion or fear. The public accepts nearly wholesale the monetization of comforts and concerns by sales forces. Suspicion of CBA is perpetuated by bad marketing of its aims to monetize and make commensurate criteria informing decision-making. Better marketing has raised *business case analysis* and VfM assessments to the hegemonic positions they hold for the assessment of public projects. Fear of CBA is well founded. CBA is feared not because of its shortcomings in making all evaluative criteria commensurate, but because in attempting to make them commensurate they are made explicit. The obfuscation of policy motivations is incongruous with making them explicit.

[xv] The truth as to why CBA is not used probably lies somewhere between the following two issues. First, CBA is associated with dry economists, engineers, or public planners, whereas "value for money" (net present value) and "lifecycle costing" (discounting) are better-sounding jargon. Second, CBA would attempt to objectify an monetize all decision factors, which P3 advocates would not want delved into. This paper shows that with an understanding of P3 legal and financial deal structures, the PSC cost items of risk transfer and competitive neutrality in VfM assessments can be reinterpreted to monetize the benefit to the public asserted by pro-P3 administrations of the tax shield offered firms through P3's PFI financing and the extent of market imperfection (ideologically-undermined government bargaining power and oligopoly market power).

[xvi] The tem "value for money" might have street credibility over cost-effectiveness and net present value of costs, it evidently lacks the kind of mystique required to detract attention from higher cost the financing costs of P3s. Notably, although P3 advocates tout PFI as being instrumental to innovation relative to ASD, it is absent from many VfM assessments. Furthermore, if efficiency is not overall, resultant cost-effectiveness, but connotes procurement of public works from a somehow less bureaucratic organization, it is conspicuous by its absence from VfM assessments. Likewise absent are valuations of lost of transparency and accountability arising from the jealous protection from public scrutiny behind calls to commercial confidentiality of the details of P3 deals.

[xvii] Too English to disrespect language to the extent that authors of its later counterpart documents from Australia or Canada do, the authors of this document employ the phrase "private finance initiative" for partnership. This is not a trivially rhetorical point. The marketing of P3s is central to realizing the will to P3.

[xviii] UK Treasury Taskforce Private Finance (1999), "How to construct a Public Sector Comparator" (1999), Technical Note No. 5, http://www.hm-treasury.gov.uk/media/9d527/ppp_ttf_technote5.pdf Accessed 12/05/2005.

[xix] Specifically: So begins the use of risk transfer as the card to trump the arguments of P3 opponents who can read bar graphs, but who are not sufficiently critical to trounce the basis upon which cost items are founded.

[xx] Shoaul, Edward P. and Stafford A. Arblaster (2004), "Evaluating the operation of PFI in road and hospital projects: Report to Association of Chartered Certified Accountants" cited in UNISON (2004), "Public risk for private gain: The public audit implications of risk transfer and private finance".

[xxi] Ernst & Young (2002), "London Underground PPPs Value for Money Review: Independent Review for the Secretary of State for Transport, Local Government and the Regions", p. 45

[xxii] Comments in *Project Finance* magazine (September 2005) by Partnerships BC CEO Larry Blain. The Abbotsford P3 VfM assessment did not calculate its own value of the fixed-price / fixed-term contracts it used, but rather simply adopted work others had done, the ~20% figure of the raw PSC, from P3 project VfM assessments in the UK. These simply based their ~20% estimates on the same ~20% estimates from the London Underground workshop.

[xxiii] Ernst & Young (2002), p. 3.

[xxiv] *Ibid.*, p. 47.

[xxv] Reminiscent of creationism's attempt to discredit Darwinism, the authors infuse efficiency anew with their own epistemology.

[xxvi] *Ibid.*, p. 15.

[xxvii] "London Underground – The Public Private Partnership: Follow Up" (2002), Select Committee on Transport, Local Government and the Regions, UK Parliament, Seventh Report, http://www.publications.parliament.uk/pa/cm200102/cmselect/cmtlgr/680/68003.htm Accessed 03/10/2005.

[xxviii] Partnerships British Columbia (2005), "*Project Report: Achieving Value for Money / Sea-to-Sky Highway Improvement Project.*", http://www.partnershipsbc.ca/pdf/SeatoSkyFinal.pdf. Accessed 15/02/2006.

[xxix] "Australian Government Competitive Neutrality Guidelines for Managers" (2004), Financial Management Guidance, No. 9, Australian Government, The Treasury, Department of Finance and Accounting. http://www.finance.gov.au/finframework/docs/AGCN_guide_v4.pdf Accessed 12/05/2005. Competitive neutrality reads like the level playing field rhetoric of trade protectionists.

[xxx] *Ibid.*

[xxxi] *Ibid.*

[xxxii] Shaffer, Marvin (2006), "Value for Money Assessment of the Sea-to-Sky P3", mimeo. Summary available at http://www.sfu.ca/mpp/04research/seminars_workshops.html Accessed 29/03/2006.
[xxxiii] *Ibid.*
[xxxiv] *Ibid.*
[xxxv] Just as the most solidly constructed Greek tragedies follow Aristotelian tenets, P3 VfM assessments are constructed to achieve similar *unity of action* toward the quite literal *catastrophe* (Greek for *change of fortune*) for taxpayers. And yet, save that of Question Period, what *katharsis* is there?
[xxxvi] Interview with PBC. Once and always a cheerleading squad for P3s, and now, in the face of a growing number of national and international cases pointing to the suspect incremental value of allowing the private sector to more expensively raise project funds, desperately trying to reinvent themselves as the government "procurement services" house (despite real expertise in disgruntled if not shell-shocked line ministries), PBC has been home to such novel but unofficially-stated considerations of P3 policy as the shortening of timelines for procurement diligence (to appease an impatient private sector) and ways to involve themselves in the selling-off of public land.
[xxxvii] Partnerships British Columbia (2003), *The Public Sector Comparator*, p. 10.
[xxxviii] And yet, "Security Risk" and "Technology Risk" are impressive sounding risks for the sheer inclusion of PFI to unburden the public of.
[xxxix] Parks, Ron (2002), "Review of the Initial Evaluation of the Public-Private Partnership (P3) for the Fraser Value Health Centre / Eastern Fraser Valley Cancer Centre", Vancouver: British Columbia Hospital Employees' Union (HEU), 2002, p. 1.
[xl] *Ibid.*
[xli] One of the appeals in Parks (2002) is for the "involvement of an independent monitor in P3 projects". It is suggested that such an "appropriate oversight infrastructure is not yet in place in British Columbia". Had anything changed three years later? The following suggests not. In fact, another of the appeals in Parks (2002) is for the "fair, consistent and equitable evaluation of [P3] projects". Are fair and equitable too much to ask? Indeed the following shows that had the accountant turned simply to accountability, he would have received not transparency but gloss.
[xlii] Conference call between then-AG and Opposition Finance Critic, 07/03/2006.
[xliii] PartnershipsBC (2005), *Project Report: Achieving Value for Money / Abbotsford Regional Hospital and Cancer Centre Project*. When questioned in a conference call (guided by the author of this paper), the AG expressed frustration at the diminished role awarded to his office, reiterated that he had only reviewed the presentation of the PBC document (not content), and responded to the question of why any more risk transfer should be possible as a result of PFI financing by saying "That is a very good question."
[xliv] *Ibid.*
[xlv] PriceWaterhouseCoopers (2002), "Fraser Valley Health Centre / Eastern Fraser Valley Cancer Centre: Public-Private Partnership Review", p. 42. http://www.partnershipsbc.ca/projects/ahcc/pdfs/FVHC-EFVCC_PWC_PPP_Review_Final.pdf Accessed 28/03/2006. Clever, for although the word "public sector" is used, these transaction costs hardly arise from the use of government staff to perform the marshalling tasks of co-ordination, oversight, due diligence, etc. Instead, they are increasingly contracted out to the private sector – to the odd ex-government consultant, but more often to teams of high day-rate members of large consultancy firms. A better focus on transaction costs would attempt to discern an option's incrementally higher costs.
[xlvi] Partnerships BC (2005), "Appendix B: Comparison of the Net Present Value (NPV) of the Public Sector Comparator with the Final Agreement", p. 33.
[xlvii] PriceWaterhouseCoopers (2002), "Fraser Valley Health Centre / Eastern Fraser Valley Cancer Centre: Public-Private Partnership Review", p. 71.
[xlviii] Comments in *Project Finance* magazine (September 2005) by Partnerships BC CEO Larry Blain.
[xlix] Partnerships BC (2005), "Risk Allocation Summary", p. 20.
Arguably, the risk of "Facilities Management Services" is the risks of avoiding unionized "Soft FM" (catering, janitorial, etc.). What is then transferred from hospitals whose management is more visibly an arm of government (such as a health authority) to private operating companies (such as P3 project companies) is the political liability of dealing with unions and/or employees. This is important in jurisdictions with both strong collective bargaining and right-of-centre governments. Indeed the AHCC P3 strove to keep "Soft FM" beyond the reach of the BC HEU.
[l] Project Finance Magazine (2005), "North American PPP Deal of the Year – Abbotsford Regional Hospital and Cancer Centre", http://www.abbotsford.ca/AssetFactory.aspx?mode=download&vid=2046 Accessed 06/06/2006.
[li] Her Majesty's Treasury (2004), "Value for Money Assessment Guidance", http://www.hm-treasury.gov.uk/media/95C/76/95C76F05-BCDC-D4B3-15DFDC2502B56ADC.pdf Accessed 05/11/2005.

[lii] The first set of criteria stems from qualitative assessments of "Viability, Desirability, and Achievability". For lack of objective criteria could these be answered any differently than with "Yes"? A quantitative assessment that "will inevitably be conducted using only high-level estimates, albeit supported by evidence taken from past procurements" forms the second set of criteria. Does "inevitability" not connote helplessness or resignation in the face of power? Why is the process not informed by new analysis? With all respect to Bayesians, VfM assessments have suffered insufferably from the biased certainties of past information.

[liii] Partnerships BC (2003), *The Public Sector Comparator*, p. 18.

[liv] The "anything goes" relativism allowed by MCA is promoted in papers paraded as P3 policy by P3 cheerleaders masquerading as publicly accountable crown corporations.

[lv] Remark attributed to Vinning (of Boardman & Vinning, authors of the Canadian standard textbook on *cost-benefit analysis*) by a P3 cheerleader, either in a moment of sincerity, or not knowing what "inoculation" meant. It is, however, likely that it is simply abject insincerity that sees P3 advocates masquerading as policy experts espouse another professional-sounding three-letter acronym when asked about their assessment policies. MCA promotes "brainstorming" – one of many not invalid methods to assembling policy inputs – to the stature of a valid *ex ante* comparative project assessment methodology deserving of recognition as a policy instrument.

[lvi] Another relative winner of P3s? Those profiting from the relative wealth of financial and legal services required by P3s. Another relative loser of P3s? Albeit psychically and not financially, public sector employees whose careers are halted for their criticisms of P3s.

[lvii] The justifications for P3s in VfM assessments go far beyond the explorations of form as content of Jackson Pollock. Rather, as this paper's first section has suggested, in their use of perception management to deflect attention from delivery to deliverables and from procurement to project, VfM assessments have more in common with the implicit redefinition of aesthetic criteria associated with John Cage or Andy Warhol. If efficiency and equity as criteria are *passé*, are *silence* and *soup can* metaphors for the communications styles and distributional consequences of P3s? That is, Cage's silence representing vacous P3 communications styles and Warhol's soup can representing the favoured treatment of commercial EPC and O&M firms over the interests of the public at large. Is undermining accountability and transparency by appeals to commercial confidentiality a consequence or an objective of P3 procurement policy?

[lviii] Avio, Kenneth (2002), "Three Problems of Social Organisation: Institutional Law and Economics Meets Habermasian Law and Democracy", *Cambridge Journal of Economics*, 26, 501-520.

[lix] Avio (2002) considers a solution to them to lie in Habermasian discourse ethics. However, is the legitimation of the DIY legal systems resulting through Habermasian satisficing not crucially dependant on having intersubjectively enveloped the concerns of all of what more earthy, less-interesting economists might call the referent group? Avio disavows rendering Habermasian *intersubjectivity* (Adam Smithian fellow-feeling, altruism, or simply empathy) a club good – the hearty cannibalisation that would allow model neoclassical economists to have some fun modelling the notion with the bargaining models suggested by game theory.

[lx] Regulation can be considered in the context of complete contracting to be the result of government (bargaining) power insisting on a specific framework around the private ownership or provision of infrastructure or services.

[lxi] Franks, Dr. Julian (2002), "Study into Rates of Return Bid on PFI Contracts", PriceWaterhouseCoopers, pp. 26-29. http://www.pwcglobal.com/uk/eng/about/svcs/pfp/pwc_rorstudy.pdf (Accessed 11/11/2005).

[lxii] Limiting or undermining these mechanisms are bankruptcy protection and government bailouts of the type seen in the privatization, near bankruptcy, and public re-inflation of RailTrack in the UK.

[lxiii] Standard and Poor's (2005), "Global Project Finance Yearbook 2005", http://www2.standardandpoors.com/spf/pdf/fixedincome/projfin_Final_RD.pdf Accessed 13/11/2005

[lxiv] Off-balance sheet debt does not yield the debt tax shield, but may have other corporate uses. See Enron.

[lxv] Thelen Ried and Priest LLP (2002), "Introduction to Project Finance – A Guide for Contractors and Engineers", http://www.constructionweblinks.com/Resources/Industry_Reports__Newsletters/June_3_2002/project-finance-flowchart.gif, Accessed 14/10/2005.

[lxvi] SNC Lavalin (2005), "Annual Report", http://www.snclavalin.com/pdf/current/2005/ra_e.pdf Accessed 06/06/2006.

[lxvii] PartnershipsBC (2005), *Project Report: Achieving Value for Money / William R. Bennett Bridge Project*, http://www.partnershipsbc.ca/pdf/wrb-vfm-report-oct05.pdf 21/11/2005. Aside from statements to the effect that rather normal ASD contractual clauses for *risk transfer* had been achieved, and that the P3 option offered $25 million of value over not further specified traditional procurement, details of the VfM assessment for the OLC P3 were not outlined, despite the title of the report. New depths of *accountability* and *transparency* were reached here

with instead of detail, references to "independent" audits of *value for money* by hardly independent or unbiased consultnats – Ernst and Young and Macquarie.

[lxviii] PartnershipsBC (2003), *Request for Expressions of Interest: Okanagan Lake Bridge*, http://www.partnershipsbc.ca/pdf/olb-reoi.pdf 21/11/2005.

[lxix] Wilkens, Michael (2002), "Credit Rating Issues Facing UK Infrastructure Projets", Standard & Poor's. http://www.actuaries.org.uk/files/finance_invest/national_inv_sem/Wilkins.ppt Accessed 21/11/2005.

[lxx] Calder, Paul B. (2005), "Credit Rating: Okanagan Lake Concession L.P." Standard & Poor's. Mimeo.

[lxxi] Low demand risks (or volume risks), since simulation showed these to be chiefly allocated to equity partners. Lessened chance of delays or failures, all of which eventually have financial costs. These included obtained environmental approvals, low design risks and proven technologies, and extensive experience of the EPC and O&M contractors.

[lxxii] Modigliani, Franco, and Merton H. Miller (1958), The Cost of Capital, Corporation Finance and the Theory of Investment, The American Economic Review, 48-3, 261-297

[lxxiii] PriceWaterhouseCoopers (2002), "Fraser Value Health Centre / Eastern Fraser Valley Cancer Centre: Public-private Partnerships Options Review".

[lxxiv] Standard and Poor's (2004), "2004 Credit Survey of the Private Finance Initiative and Public Private Partnerships", http://www.foroinfra.com/nuevos_pdf/SP2004.pdf Accessed 02/11/2005

[lxxv] UK Treasury Taskforce Private Finance (1999)

[lxxvi] Department of Treasury and Finance, Public-Private Partnership Unit, Partnership SA (South Australia) (2002), "Private Sector Participation in the Provision of Public Services, Appendix 1: Accounting classification of PPP transactions", p 50.

[lxxvii] *Ibid.*

[lxxviii] Canadian Institute of Chartered Accountants recommendations, Section 3065.

[lxxix] PartnershipsBC (2005), *Project Report: Achieving Value for Money / William R. Bennett Bridge Project.*

[lxxx] "Public Private Partnerships: Corporate Structures, Accounting Treatment", Accounting Policy Research and Development Branch, Office of the Comptroller General, Ministry of Finance, Province of British Columbia, 2002. http://www.fin.gov.bc.ca/OCG/fras/altproc/AcctngP3.pdf Accessed 13/07/2005

[lxxxi] It has has seen academics if not swoon, then adopt it towards garnering consulting contracts.

[lxxxii] UK Treasury Taskforce Private Finance (1999)

[lxxxiii] "No enterprise is more likely to succeed than one concealed from the enemy until it is ripe for execution." Machiavelli, Niccolo (1521), *The Art of War.*

[lxxxiv] PartnershipsBC (2005), *Project Report: Achieving Value for Money / William R. Bennett Bridge Project.*

[lxxxv] Sanders, Douglas R. and Michael Dew (2005), "Risks Flow Downward? Managing Risks in P3 Projects", Borden Ladner Gervais LLP, paper presented at Public Private Partnerships in British Columbia.

[lxxxvi] However unrealistic, trivial build contracts see the EPC contractor simply implement designs. Such designs are delivered with a warrantee of due care that removes from the liability of the designer the consequences of unforeseen complications. In design-build projects, all liabilities arising from engineering and construction performance or quality generally reside with the EPC contractor through the warrantee of result they provide. Such broad liabilities result in it not being in the interest of EPC contractor to employ newer, less certain technologies. If the public entity requires that newer technologies be used in the project, it is then in the interest of the EPC contractor to manage the design risks itself through design-build approaches. Of course, it is not clear why PFI+ASD as P3 is required – particularly why project company-raised finance and project company-operation – for new technologies to be encouraged and employed through design-build project approaches. Uncomfortable questions are raised as to the motivations of P3 approaches by the identification of EPC contractor interests and incentives. What certified the involvement in the project of the EPC contractor was its dependability and credit worthiness. These are all functions of its size, experience, and deep pockets, which confer it bargaining power. It follows then that if the use of novel technologies is insisted upon by the public entity, that the EPC contractor would, in turn, insist on either broad exclusions of liabilities or higher fees. This risk premium was, of course, ultimately implicitly borne – some would suggest swallowed – by the public entity in their having accepted the benefits apparently causal to P3 financing.

[lxxxvii] They would therefore not employ new technologies until these had become less novel – that is, proven by competitors, or by other, smaller firms who are more entrepreneurial, more able to bear risks. Would not smaller, more entrepreneurial firms, who stake themselves more significantly on their unique approaches, be more likely to employ newer technologies?

[lxxxviii] Do such sub-subcontractors enjoy any bargaining power that would allow their interests to be reflected in contracts? Or are they ultimately subject to monopsony or oligopsony power? Or do some retain bargaining power, while others lose it? Questions as to the interests of labour with respect to others higher up on the P3 "food chain" bare some of the most poignant issues of P3s – the distributional effects of P3 with specific respect to labour – and with them, another of the interesting uses of language in P3s. If, given the lack of perfectly competitive markets, efficiency could not possibly mean Pareto efficiency, and if with efficiency one does not hope to suggest the any relative efficacy of private sector actors when granted (further) market power, could possibly efficiency have bearing on labour relations?

[lxxxix] The former suggests that any differential return demanded by lenders for investments in well-informed and well-diversified market investments over government bond issues does not contribute to the government's cost of capital. So, $R_m \neq R_f$.

[xc] Grout, Paul (2005), "Value for Money Measurements in Public-Private Partnerships", http://www.eib.org/Attachments/general/events/efs2005_05_grout.pdf Accessed 14/09/2005.

[xci] Hart, Oliver and John Moore (1998), "Incomplete Contracts and Renegotiation", *Econometrica*, 56-4, 755-785.

[xcii] Hart and Moore (1998) self-consciously note that the "null contract is complete in that it is absolutely clear what everybody's obligations are: nobody has any!" That nomenclature is a "matter of semantics" would have more relevance to analyses of the will to P3 if such issues as discriminating transfers from costs to a referent group, the differential impact on risk transfer and new risks of NRF, or whether monolithic public provision versus ASD is the plausible non-P3 procurement scenario were merely matters of semantics and not the results of acute skills of public relations – or worse, expressions of confidant ignorance.

[xciii] Hart, Oliver and John Moore (1999), "Foundations of Incomplete Contracting", *Review of Economic Studies*, 66, 115-138.

[xciv] Hart, Oliver (2003), "Incomplete Contracts and Public Ownership: Remarks, and an Application to Public-Private Partnerships", *Economic Journal*, http://post.economics.harvard.edu/faculty/hart/papers/pub3vs.pdf Accessed 22/10/2005

[xcv] *Ibid.*

[xcvi] There are, of course, P3 advocates who espouse limited project specifications by governments – (paraphrasing) "outputs, not inputs".

[xcvii] Hart (2003)

[xcviii] A model pertinent to P3s would be one that applies incomplete contracting and property rights (for non-transferable risks), complete contracting, mechanism design, and construction contract law (for transferable risks), the legal and financial deal structures of P3s (for P3-endogenous risks), and market power, political ideology, and organizational behaviour (for the will to P3) to investigate the possibilities for or impossibilities of risk transfer in P3s as PFI PLUS ASD relative to ASD, and to re-inject these insights into cost-benefit analyses "To P3 or not to P3".

[xcix] Evidence remains anecdotal to this paper

[c] UK Treasury Taskforce Private Finance (1999)

[ci] If risk transfer as ~20% of the present value of PSC capital costs is largely a tax benefit transfer, then the deceptively named item is simply a transfer having no impact on a referent group's social surplus, but one with distributional consequences. Moreover, since the EPC and O&M firm is likely to be incorporated outside of the referent group, the transfer is actually a loss of social surplus. Here, citizen-taxpayer members of the referent group pay for the tax benefits of a party outside the referent group.

[cii] Work on tax shield valuation include Dwayne Wrightsman (1978), "Tax Shield Valuation and the Capital Structure Decision", *The Journal of Finance*, 33-2, 650-656, and Kemsley, Deen, and Doron Nissim (2002), "Valuation of the Debt Tax Shield", *The Journal of Finance*, 57-5, 2045-2073.

[ciii] These include such incentives such as fixed-price contracts, performance adjustment and penalties, take-or-pay, compensation-on-termination, etc., that better align principal-agent relationships.

[civ] On the condition of anonymity, seemingly ignorant to the tax benefit transfer, and childishly banging their heads on the table when PFI as contested as the lone incremental difference between ASD and P3s.