

**pipe n. 1. tube to convey water, gas etc; ~line (fig.) in the ~ : awaiting completion or processing : PLANNING FOR EFFECTIVE PROJECT PIPELINES**

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**Abstract**

In the early 2000s when privately financed public asset creation was the vogue, Australian governments were routinely exhorted to publish “pipelines” of projects for which constructors, financiers and operators could prepare. Pipelines (not just for private financing opportunities) are still sought (not just for transport infrastructure) by a variety of interests. The paper discusses a number of topics including :

- the difficulties of publishing a pipeline of potential **transport** BOOT/PFP projects, attractive to both government and the private sector; and
  - the relation of economic appraisal to comprehensive asset creation planning;
- and reports on an analysis of some thirty BOOT/PFP projects undertaken in New South Wales over a pioneering twenty year period from the late 1980s, of which by far the largest group were tollways or public transport infrastructure, assessing the success of the projects from both the private and the public sector points of view for hints to identify the best prospects in future. The author questions the reliability of the bases for and the net advantages of publishing project pipelines, discusses the post 2008 impact of the world financial collapse and finally policy prescriptions for government analysts and advisors everywhere are suggested.

**1. INTRODUCTION**

Bidding for major infrastructure works contracts with government, and transport infrastructure is no exception, is a costly affair. To assist the private sector prepare to bid for public infrastructure ownership and financing opportunities governments are regularly asked to publish “pipelines” of initiatives which have firm government support and from which it will not retreat - leaving no bidder, a winner, and all bidders poorer by millions of dollars. Governments have struggled to establish such lists and when they have responded, the lists are often not seen as effective by the private sector.

Why is it that attempts to establish such lists in the past have been so hard for governments and are not seen as really effective by the private sector?

**Why it has been hard to Publish a Pipeline of Potential BOOT/PFP Projects**

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Before the effectiveness of announcing “pipelines” can be assessed however, the significance, the nature and the complexity of government planning must be appreciated. Business planning is infinitely more straightforward.

For government, there are many forces at work. Planning is less comprehensive than it was. In an era of internet based communication governments, through their ministers, are expected to react instantly to media questioning. Optimism is generally desired and this biases and feeds the government/electorate/media cycle of defensive announcement. Government places a premium on reacting promptly, and certainly ahead of patient planning.

Let's first take government planning and financing. In 40 years, as a transport planner/economist and later as a public finance specialist in Treasury, I rarely saw evidence of the needed long term planning that actually translated to a comprehensive long term works program that eventually got done. There is no real sign of it in Australia, presently. There are announced programs of major works projects (eg Directions 2031, (2010) and Public Transport Authority WA, 2010)) and a high degree of sensitivity to being criticised for passivity. That is all and that is the normal situation.

The two rare exceptions that I do know of from my own experience were old style Transport Plans that emanated from major transportation studies - the Melbourne and Metropolitan Transportation Study 1969 and the Sydney Area Transport Study 1972, the main elements of which (together with a lot of extraneous investments which were not parts of the announced "Plans", inserted along the way by governments) are just now, 40 years later, coming to completion.

We no longer plan that way. The horizons of the big Melbourne and Sydney Transport Plans for both public transport and highways at the time were 15 years not 40, so great was the optimism at the time of even those Herculean efforts to plan<sup>2</sup>.

To plan is to foresee – and sadly other portfolios than Transport have enjoyed generally even **less** forward vision and followed even less prescriptive plans generally concentrating on service and payment models or building and investing as there were ways and means available.

During the period since the publication of the two major Australian Transport Plans of 40 years ago with their emphasis on capital works initiatives (a major fashion world wide at the time), the significance and practical application of metropolitan wide town and transport planning also diminished to the point that currently it can hardly be noticed in either city. From New York<sup>3</sup> to Perth, it is no different. Each large development proposal proceeds in isolation from any others, subject to, detailed investigation by its proponent and the approval authority, and to appeal from disadvantaged parties.

It is hardly surprising therefore that in an Australian government budgetary system with annual appropriations and no more than a 4 year electoral cycle, sets of data collected centrally show **few extensively evaluated large scale projects** – just announcements that major developments are under consideration by government and an estimated cost entry in the out years of Treasury's forward estimates.

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As an indicator of the seriousness with which such planning was taken, the Home Interview Survey of trip making in Melbourne Transport Plan studies in 1964 rivalled a Census in its detail and cost \$1 million (\$4-5 m in today's terms).

<sup>3</sup> For a revealing, towering criticism of the failure of planning in the 1960s elsewhere, not just New York, see Huxtable (1970).

My discussions with public service planners with similar years of experience confirm similar local histories of early government announcement with project management left to plan for the execution of a version of the announcement.

The switch from directive planning to reliance on the market's "invisible hand" in the last quarter of the 20<sup>th</sup> Century must have been a major force behind this change over the period, but not the only one. Other influences certainly include changes to the reaction speed expected of elected leaders and the gradually tightening fiscal stricture over the past 40 years.

### **Relation of Economic Appraisal to Comprehensive Asset Creation Planning**

A measure of the difference between the degree of development of formal plans can be seen from the ability with which a small team of planner/economists could respond to the Whitlam government's States Grants (Urban Public Transport) Act 1972 and the States Grants (Mainline Upgrading) Act 1974 initiatives in which some \$200 m (\$1974) of section 96 Capital Grants were suddenly offered to the states (the lion's share to Victoria (\$54m) and New South Wales particularly), in return for economic appraisals conducted to a standard procedure developed by the then newly established Bureau of Transport Economics (BTE, (1973) and (1975)). Not long ago, Infrastructure Australia made initial announcements indicating a similar program to be funded by the Building Australia Fund would may be launched (Infrastructure Australia, 2012) – but to date, the states as a whole have struggled to respond effectively.

So successful however were the BTE supervised programs that by 1980 it was even possible for planners in the Victorian Ministry of Transport to express the Victorian Railways capital works program as a linear programme in which an objective function of the value of the whole works program could be optimised subject to an array of technical and financial constraints (Parfitt ATRF, 1989). To realise how far from being able to examine a program of major works programs by the use of these means today, in all the time since that era, no comparable use of comprehensive economic appraisal and capital programming was attempted in Victoria.

Each step built upon another. Genuine economic appraisal presupposes detailed transport plans have been developed. Establishment of a benchmark optimal program of projects requires extensive contemporaneous economic appraisal and, if required, the detailed examination of announced government plans for the best BOOT/PFP candidates should then follow from this. Eventually, the needs for transport infrastructure in Australia (and worldwide) came to be planned in a different way. In addition, in the last 20 years, much of the Australian system was progressively sold or its operation outsourced to the private sector.

Lacking the developed plans of this earlier level of comprehensiveness for future development, most agencies in Australia today are not able to indicate more than a high level direction of their future capital program of future works should budget restraints be suddenly relaxed (eg PTA , 2010).

Examples from the last five years of what would happen are all too clear from the difficulties of the Commonwealth funded national school building program, an array of solar panel subsidy schemes and a domestic ceiling insulation program (that all parties would rather forget, they were so badly executed). Only the initial 1939 National Mobilisation would rate as more poorly handled, I believe (Commonwealth of Australia : S J Butlin, 1955).

## **2. PROJECTS AND CONTRACTS - "DRIVERS" AND PIPELINES**

In recent years there have been a number of attempts by both private sector and government writers and commentators to explain what types of government projects are most suitable to be delivered by the private sector – either in terms of better results to the public or at a reduced cost to the Consolidated Fund with a consequential reduced burden of taxation (because of the private sector’s superior management ability) and also because of the scope that may exist to capitalise on associated profitable opportunities.

It has become common in Guidelines and studies<sup>4</sup> to even list **“drivers”** of projects (and even project types) deemed to be likely to succeed as a vector of characteristics. These characteristics include : long term concession contract, scope for measurable service outputs, innovation, and whole of life costing, market appetite and opportunity for risk transfer, and complementary commercial opportunities etc. The concept of a “driver” however (as a source of decomposed shareholder value) is an unfortunate use of the term except I suppose if it were ever employed by a private sector business analyst assessing the attractiveness of an opportunity.

Keeping a company’s improvement initiative project “pipeline” full by whatever method of analysis is often felt to be vitally important to the survival of that enterprise (Michael Porter, 1985 and Denny R, 2005), but the application of the device of “driver” analysis seems to me a step too far, for me. Many are more just characterisations of projects – indeed, the direction of causation of many of the cited “drivers” is uncertain. Some may as easily be causes, or effects (Kazlauskiene and Christauskas, 2008).

More seriously for our purposes, I question if there is only one **special type** of PPP project or is it possible that (in the right circumstances) we might deliver almost **any** asset creation project by either sector? Is the nature of the contractual relationship as important as the activity, itself, perhaps?

The history of the twentieth century shows it may indeed be. In fact, the 20th Century can be divided broadly into two halves. The first half represents an era of :

- nationalisation of industries and trade policies; and
- the collectivisation of public assets and the regulation of the national economic systems everywhere,

in which powerful forces, unleashed by two World Wars and the biggest economic depression ever, eventually slowed in the last quarter of the century to reverse the emphasis on public asset ownership towards the recruitment of the power of markets to produce public services at reduced cost.

Some commentators<sup>5</sup> have suggested that almost any field of public service endeavour can be performed by private firms. Certainly, if we take a broad and long view we see that in different times and places they have.

The “driver” approach seems to have come from business management theories of aligning an organisation’s objectives with “critical success factors/indicators” where value is commonly taken to be the most comprehensive measure of business condition (Pratt S, 1989). However, because of wide variations in value according to changes in the chief value “drivers” (both internal to the enterprise and also external to it) management scientists have thus sought to disaggregate these sources of value and its variability. Decomposed NPV estimates of the contributions of “drivers” to overall value are suggested as indicating where the next most profitable opportunities may be

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<sup>4</sup> See the Infrastructure Procurement Options (IPO) Guide 2009 of the CEIID (and EPEC, 2009)

<sup>5</sup> For example Jay Horton (Strategis Partners, 2011)

found. The “drivers” (both qualitative and quantitative, and however selected) are generally not independent of each other or of equal importance.

In the local Western Australian version of “driver” analysis the excellent CEIID IPO Guide identifies seven key indicators and believes that PPP suitability of projects may be analysed by assessing the value the bidder would place upon:

1. A minimum Scale and Contract Term warrant of \$50m/20+ years.
2. Clearly definable project risks that the private sector can manage better than government.
3. Integrated responsibility for all project risks (especially design, construction and maintenance and their interactions).
4. Possibility for innovation (of any nature, acceptable to government).
5. Would a performance based contract be enforceable throughout the value chain?
6. Scope for earning third party revenues that a government owner couldn't.
7. Would there be vigorous competition for the opportunity?

Again, to be clear, the finally negotiated BOOT/PFP **contract** of a viable project delivered in this way should be expected to embody these characteristics (not necessarily all) rather than we should follow a plan of sieving through agency proposals looking for “sure winners”. The scale “driver” for example is quite controversial – the troubled NSW Rail Rollingstock Project is as big as they come, 36 times bigger than the Colongra Gas Storage and Transmission Pipeline, a stunning success.

### 3. THE EVIDENCE OF A LIMITED AVAILABLE HISTORY

For me, a “pipeline” developed from analyses of categories of key “drivers” offers too many possibilities to consider for the quantity of data actually available, but it also doesn't take account of real life experiences. The categorisations are essentially the same naïve lists that had been suggested in early Australian BOOT/PFP guidelines of 20 years or so ago **before** BOOT/PFP type approaches became common<sup>6</sup>. Rather than ask what did we DO last time, I decided to ask what HAPPENED last time<sup>7</sup>.

First, how does a typical private consortium assess BOOT/PFP proposals? I asked a number of private sector advisors who generally maintained it was no different from other business decision making and (my words) based on general marginal analysis of risk weighted estimates of costs and returns. Sometimes, a precursor to estimating the total net value of a particular proposal may be a value “driver” analysis – the process by which a business opportunity is analysed into an array of identified value contributing activities. Analysts may review (statistical or merely, posited) correlations between the perceived contribution of final potential attributes and net profit. The key “drivers” will be the attributes with the highest correlations. This refines the number of features to be considered in the estimate of the NPV of some particular proposition.

Can “driver” analysis somehow defined in a similar way assist the government side to appreciate whether a particular project may be attractive to the private sector? As a government strategy it may help to put ourselves in the private sector assessors' shoes

<sup>6</sup> Of course there have always been a small number of project financing arrangements in Australia – the \$800m Melbourne Underground Rail Loop completed in 1982 is an example, rare in Australia before the 1990s because of the vigilance of the Australian Loan Council though encouraged in developing countries by American companies in South East Asia (Colley B Court Jr, 1982).

<sup>7</sup> In recent years I have tried not to copy **what was done** previously (eg so as to go more quickly) but to examine **what happened** last time in a comparable situation. There is a world of difference. What happened last time includes what we did of course but also things like what alternatives were considered and rejected and what the consequences of what we did, were. Asking what happened is the beginning of true science. What we (or anyone else) did last time is a more limited enquiry.

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while selecting projects government wants to offer, but even so we would have to settle exactly which projects the government wants for its own reasons, first.

Second, as a test of the evidence of history, I personally reviewed a set of 29 BOOT/PFP projects in which the NSW government negotiated different types of contacts with private sector owners and financiers to supply services that a government would normally supply, from two points of view :

- was the government principal satisfied with the arrangement overall ? and ,
- was the private sector agent, content?

The range of projects attempted in this 20 year period is very wide and among the very large NSW infrastructure asset creating instrumentalities, only electricity and port redevelopment were not represented. The details appear in an Appendix table.

The great difficulty with an assessment of this nature is that though my knowledge of the arrangements was “extensive” compared to anyone not associated with the negotiation of the contract in the first place or the administration of the contract year after year, it was necessarily incomplete. On the basis that successful BOOT/PFP style arrangements should be **good for both sides**, not just one or the other, I was broadly assessing, whether of the projects actually delivered in this style, **which parties had benefited** from the arrangement, relying on my knowledge of the project and the contract.

To examine the government’s satisfaction I specified five aspects of satisfaction. Not all aspects are equally relevant to each project and they are intentionally broad, but the chief test (No.1) was – were the government’s aims attained?

<b>GOOD FOR GOVERNMENT</b>	<b>COMMENTS</b>
No 1 - GOVERNMENT AIMS ATTAINED	Need to express what the aim was and whether there were constraints. Normally related to a public responsibility subject to there not being a better solution and a cost limit.
(2) <u>MUCH</u> BETTER OUTCOME THAN PSC	Normally a type of “hurdle” or “gateway” condition for Treasury
(3) <u>SMALL</u> INITIAL CONTRIBUTION	So as not to underwrite the private sector financier’s or the owner’s risks
(4) FEW <u>ONEROUS</u> CONDITIONS ON GOVERNMENT	Ditto especially guarantee of performance or result or very generous terms
(5) LITTLE OR NO SUPPORT <u>AFTER</u> BUSINESS FAILURE	So as not to “resume” the project or important risks thought to have been contracted to the private sector parties

To review the private sector’s satisfaction, three aspects were considered. Here the tests were necessarily simpler. The government creates public assets to serve the public interest whereas a private company invests in the simpler hope of financial reward in the interests of the shareholders.

<b>GOOD FOR PRIVATE SECTOR</b>	<b>COMMENTS</b>
No 1 - SUCCESSFUL (PROFITABLE) BUSINESS OVER THE CONTRACT TERM	The reason for participating in the arrangement
(2) NOT PRESENTLY A TROUBLED BUSINESS	le one with bad “signs” that soon may become insolvent
(3) AN INSOLVENT BUSINESS THAT	Under some circumstances or at some

COULD BE RECONSTITUTED OR SOLD	price
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I then tabulated the projects and rated them, one by one from a government point of view and then again from the private consortium's. Across the 29 examples, no consistent patterns were noticed. The circumstances seem to overwhelm mere categories across so few instances.

Even taking the 29 projects, project x project, is inconclusive because of the "mixed" nature of the constituent parties and their respective interests. There isn't just **A** government party or **THE** private sector party. That is too great a simplification.

For example I considered things like - did the debt providers get their loan back and a safe return and the owners lost their shirts? – did the Minister for Transport get what he wanted but the cost to the taxpayer was huge? In fact, there are normally two negotiating "alliances" involved and not everyone may have got what they expected - between or within. Nor is it always easy to dissociate the features of the project from the characteristics of the contract.

Despite not finding the secret of what constitutes a good deal from the experience of two score projects, from which 29 were reviewed, there are some interesting patterns. Among 29 projects (discarding very recent contracts where the operating phase hasn't been going long enough to judge the success of the arrangement at all, yet) half were classified as good for both sides, slightly more as good only for the private sector **and only 5 as bad for both.**

Four of the projects were distinct extensions of an original project (not just minor variations or irrevocable future phases but, each, an independent choice). Counted or not, these variations made little difference to my categorisation of success or otherwise. Half were good for both.

	All Projects	Considered	Without	Variants
	No	%	No	%
Good for Both	14	48	13	52
Good for Govt Only	3	11	3	12
Good for Private Only	7	24	5	20
Bad for Both	5	17	4	16
TOTAL	29	100	25	100

Of the 29 contracts, a third were tollways. The proportions however for all items excluding tollways were similar. Still about 1/2 were good for both.

	All	%	Less Tollways	%
Good for Both	14	48	11	58
Good for Govt Only	3	11	1	5
Good for Private Only	7	24	2	11
Bad for Both	5	17	5	26
TOTAL	29	100	19	101

Of the 5 projects in the group, **Bad for Both**, none are roads, a hospital or a water treatment plant. The Bad for Both group comprises an isolated tramway and its later extension, an underground railway to the Sydney airport, an Olympic indoor event arena and a waste treatment plant – projects in which the operators had no real control

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over demand coupled with very minor underwriting of operating costs by government of revenues, but considerable public support for construction<sup>8</sup> of different forms.

Such **success** patterns as there are, include :

- of 10 roads : 7 good for one side or the other, but only 3 for both;
- of 3 hospitals : 1 good for both sides and 2 for the private side only, and
- of 4 water treatment plants : all good for both.

	Roads	Hospitals	Water Treatment
Good for Both	3	1	4
Good for Govt Only	2 (*)	0	0
Good for Private Only	5 (**)	2(+)	0
Bad for Both	0	0	0
TOTAL	10	3	4

Special features of the arrangement :

- (\*) a/c bidders paid too much for the concession
- (\*\*) a/c traffic risk underwritten in different ways
- (+)generous availability payments

One further Sydney project should be mentioned though its inclusion in the “official” list wouldn’t make a difference to this scan of projects, I feel. For some reason the Sydney Opera House Car Park has never been acknowledged as an item of privately financed public infrastructure. Nonetheless it surely qualifies because a private financier and owner supply services – during the whole day, not just to theatre patrons – in an asset that a government body would normally have provided, for a 50 year concession term after which the asset reverts to government at the end of the term. It is an early project (late 1980s) and was possibly just overlooked because at the time no one thought in terms of the now established BOOT/PFP definition (Infrastructure Australia, 2008) at the time . It was probably seen then just as a sophisticated lease and was just ignored thereafter. There could be others. In terms of ‘pipelines” there may even be currently arrangements (large or small) in all jurisdictions, including here in Western Australia, that conform to the BOOT/PFP definition in the National Guidelines. Did we think to look?

Victorian Treasury’s Partnerships Victoria unit supplied me with a companion project list (also 29, including 7 hospitals) however this wasn’t easy for me to assess as I lacked the deep acquaintance with the histories of the projects that I had with the NSW set. In discussion however it seemed the worst results for the private sector (as for NSW) stemmed from unrealistic, aggressive bidding and the worst results for government were where private sector owners, uninterested in the ongoing activity, were passive. So turns the mighty world.

Victoria did however have an Investment Management Standard (Partnerships Victoria, 2012) developed progressively since 2004 in which, in place of complex, sophisticated processes, a simple common sense description of a given investment proposal is tested by a battery of questions aimed at relating strategic interventions and solutions to identified problems **at the Investment decision point**, sifting out, after an informed expert panel discussion (facilitated by specially trained moderators), those opportunities less worthwhile pursuing for the time being. The discussions are brief and evidence must support the group’s consensual conclusion. Some, (a minority) of the 16 test question areas are relevant to the identification of BOOT/PFP “drivers”.

<sup>8</sup> Including subsidised access to land, rights of way not otherwise needed and other in kind assets.

The conclusion that I personally drew, from what represents 15 years experience of a 20 year employment of BOOT/PFP style contracting in New South Wales across a broad array of project types, is that :

- project type or portfolio may have little to do with success; and
- the manner in which an agreement is structured may be decisive, for good or ill.

Incidentally, though not all poor projects were unsolicited proposals – all major unsolicited proposals were poor for at least someone.

#### **4. DO “DRIVER’S” HELP IN TODAY’S ECONOMIC CLIMATE OR WERE THEY JUST A FAD ?**

The Global Financial Crisis of 2008, whose effects on trade, national economies and enterprises are still well and truly evident, has made

- launching PPP style initiatives quite difficult (for the private sector); and
- requests for officially announced “pipelines” of projects in all countries even more insistent among private sector participants and their media spokespersons.

In the past 5 years many specialty news services (at least one, even making daily releases) summarise the latest announcements and opinions on PPP style deals, some for the information of fee paying subscribers<sup>9</sup>, and routinely urge “pipeline” announcement by governments .

So severe is the current world financial situation that temporary financing options including :

- requiring only partially underwritten bids from final bidders;
- increased government contributions or participation;
- government co lending in concert with an enlarged club of private financiers to fill a gap in initial financial subscription either on equal terms or as a subordinated creditor; or
- giving government guarantees of the private loan syndication, postponing actually co lending,

have all been discussed in an air of “business (almost) as usual”. What has been especially notable is that these private sector financial prescriptions (and their contractual form) are usually considered suitable for new initiatives or refinancings for projects of diverse sizes, activities, locations, risk allocations, legal form and structure etc.

However difficult it must seem to provide the private sector with notice of potential PPP projects, the Council of Australian Governments(COAG) in endorsing the National PPP Policies and Guidelines in 2008 actually committed the participating governments to provide a broader picture of the **Australian infrastructure market** to the private sector.

In August 2010, the National PPP Working Group, when

- committing to a process of continuous improvement in PPP delivery processes; and
- noting that “jurisdictions will indicate to the market as early as possible the projects that are likely to use the PPP model and will publicise this information on the Infrastructure Australia website”:

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<sup>9</sup> Examples include Inspiratia (UK), SAI Global (Sydney), Infrastructure Australia Report (BWA, not Infrastructure Australia), European Investment Bank (EPEC) Market Update etc .

1. reiterated that “the National PPP Guidelines and current practice is to determine the preferred procurement strategy **following** project approval and that the decision is to be based on a project specific assessment of the best delivery model”: and
2. undertook in future to investigate “whether changes to approval processes for procurement strategies could improve the level of consistency in the approaches to selection of procurement strategies”.

### **Searching and Choosing**

In the search for candidate projects in the current world economic recession we need to distinguish “searching” and decision making – akin to the difference between the stages in a cost benefit study where we first **select** an array of alternative methods of dealing with a given problem and subsequently, where we **estimate** the impacts on costs and benefits of those alternatives.

The infrastructure needs of each portfolio are each minister’s concern. It would be exceeding a Treasurer’s remit for a “relevant PPP authority”<sup>10</sup> (Infrastructure Australia, 2008) to try to suggest the next most important additional item of public infrastructure to proceed. Treasuries are essentially reactive and the Treasurer’s concern is normally with examining the relative economy of the proposed solutions. Only portfolio planners know what they would like to recommend to their minister as the next most pressing need to be addressed.

Incidentally, related to “searching and choosing” in the NSW cases examined here are the rare “accidental” discoveries from time to time of arrangements that an authority had entered into unawares. Because there was a binding requirement to identify and have the NSW Treasurer approve all project contracts conforming to a specific statutory definition in a particular Act<sup>11</sup>, all such contracts were expected to be brought to Treasury for review before execution. “Accidental” examples include the Colongra Gas Pipeline, the Third Generation Suburban Train contract (1998), the first Hospital Car Parks, minor medical imaging service contracts and the New Sydney Cancer Centre at RPA, currently under construction.

I cannot emphasise too strongly the enormous advantage for a “relevant PPP authority” that defining a BOOT/PFP scheme formally within a statutory approval framework was to NSW Treasury’s identification and management of these arrangements. Examples of the detection of arrangements included initially casually noticing agency invitations to express interest in the newspaper tender section to conversations with budget inspectors to (subsequently) voluntary admissions by the agencies themselves – all examples of a principle fundamental to Treasury’s methods of daily administration with so few officers – “Treasury is always watching”. Of course it is only effective if we do watch – and act.

### **A Western Australian “Pipeline”**

Since today we are here in Western Australia – what is the effect of applying a “driver” based sieve to a set of projects as a local example?

During 2011 the nearest I came to a type of “pipeline” of potential projects here was in a WA Department of Treasury and Finance document describing the CIPRAP (Capital

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<sup>10</sup> p 12 Part 1 Policy Framework – the term for the agency responsible for BOOT/PFP style contract supervision

<sup>11</sup> See section 5A of the NSW Public Authorities (Financial Arrangements) Act 1987

Investment Prioritisation and Resource Allocation Process) System<sup>12</sup> which ranked proposals in terms of importance, benefits and achievability and rated each proposal against each criterion. The review occurred at a strategic level **and presupposed** genuine analysis of economics, risk and finance had been conducted. Perhaps it had. The CIPRAP document's proposed "pipeline" in 2008 contained electricity and water network augmentations, port deepening and expansions, a suburban railways extension, a number of building developments and the Northbridge Link.

In the style then of Section 3 above, I applied the CEEID version of "driver" analysis, viz

1. Minimum Scale and Contract Term warrant
2. Project risks that the private sector can best manage
3. Integrated responsibility for all project risks
4. Possibilities for innovation
5. An enforceable performance based contract throughout the value chain
6. Third party revenues to be earned
7. Competition for the opportunity

tentatively to the items in the CIPRAP list of proposed projects. None on the list seemed outstanding to me chiefly because I was uncertain. as with the list of **completed** Victorian projects of vital details of the proposed contracts and also of the difficulties business would have owning and operating assets without much control over risks like demand or pricing.

Of the items on the list, on first blush, only the port redevelopment projects seemed really likely candidates, provided, in addition to the reservations about control over key risks, ownership and operation of the assets wouldn't conflict with competition or development policies of government.

More significantly, though, the tenor of the approach overall seemed to be to emphasise "speed"; early announcement; early commencement. All the wrong signs. More logical approaches are expected to emphasise progress according to a plan; economy of execution; **early completion**.

I don't think the "pipeline" is to be found in CIPRAP though the idea of a process that relies on a panel of government experts is along the right lines. At the time of writing, I expect that :

- within a short period the WA Strategic Asset Management Framework (SAMF) will have been upgraded and released; and
- it will revise high level policy and approval processes, propose mandated business case preparation as a precondition of announcement and suggest approaches to fast tracking of select projects and suggest improved methods for the evaluation of procurement options.

All these are relevant to the preparation of sound, announceable "pipelines" of projects.

Currently the CEIID advice on Procurement Option Analysis recommends a "driver" based approach and follows broadly methods accepted in other jurisdictions as suitable for the creation of privately owned and financed public infrastructure. However, these methods are fitted uncomfortably into regular, necessarily annual, budgeting cycles which have no special relation to the timing of public asset creation **of interest to private parties**, where the pattern of assessment and approval may be quite independent of financial years or the appropriation timetable of States or Commonwealth budgets.

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<sup>12</sup> (CIPRAP, 2010)

I also examined data supplied to Treasury to compile the annual works budget (with three 3 forward estimate years) but entry onto the Forward Estimates data base seemed generally too late to allow the detailed investigation of significant future projects needed to also assess their suitability for BOOT/PFP style delivery. By the time a Treasury was formally aware of them through this avenue, they were soon to start. One advantage of a project being entered in an out year of the Forward Estimates however is that if the analysis **can** be done in time, sufficient funding (in very preliminary terms) will be present in the budget for a government funded version of the project if a BOOT/PFP style delivery were **not** adopted.

My conclusion is that reviews of programs submitted to Treasuries generally are not likely to turn up promising leads chiefly because :

- the forward horizon is too short ;
- there is rarely any useful analysis of risks that might be traded between the government and a private sector party;
- cost benefit analysis of the larger projects have not established the urgency or the necessity of the project starting right now;
- other “homework” that is required by the National PPP Guidelines hasn’t been considered.

In short, we are unable to be confident that from this source:

- any given project is what is needed **now** by government;
- we have any idea what the advantage to government would be if a private sector party delivered the services, instead of the public sector.

If the analysis above is right, and predictive success comes from the **“good deal” tests** rather than examination of a vector of “drivers” - agency best projects should be discussed early with the budget strategists in Treasury as a precursor to a “relevant PPP authority” unit surveying agency planning chiefs.

Second, and more important for our current purposes, is it likely to be attractive to a private investor? Are there risks of such a scale to be transferred?

## **5. POTENTIAL FOR ALLOCATING RISKS TO THE PRIVATE SECTOR IS THE BEST STARTING POINT - PRIVATE SECTOR INVESTMENT INTEREST**

So much for now for trying to improve on the efforts of those naively identifying “drivers” by reviewing a sample of projects that I judged by a different test of to have been a good or a poor deal to either or both sides. All my experience didn’t carry me a long way further, really. Let’s now look at things just from the private sector’s point of view. Here, is what I expect they would examine, case x case and what government might need to do in light thereof.

To be clear, I am not advocating the use of “driver” analysis to find the next wave of BOOT/PFP initiatives, nor an abandonment of the current national policy that PPP delivery is:

- intended to improve the execution of an already good potential project; and
- **not** just a way of “jumping the queue”;

but a way to focus our scarce resources on the government project(s) with the best economic credentials and value to government.

The intrinsic risks of major infrastructure projects are the same whoever operates, owns or finances the investment. The risks are normally just costs not yet manifest with a less significant number of beneficial opportunities thrown in, as well.

The financial impacts of the risks occurring however may be very different depending on who is to respond to these hazards and opportunities. Currently the standard examination needed (economic appraisal, risk analysis, financial appraisal etc) for the biggest government infrastructure is not well enough done to immediately decide whether a superior outcome would eventuate from BOOT/PFP approaches.

By requiring the highest priority item in each portfolio to be comprehensively assessed (to near the standard that a private lender who demanded **no chance of not being repaid** or an owner investor who hoped for a rich reward, would expect to see) is probably the most powerful force for detecting the best private financing opportunities that government has to offer.

Such a suggestion has its limits, too. To develop a government “pipeline” in spite of the incomplete planning to date, government would need to accept that:

- only a limited number of large privately financed initiatives are worthwhile at any time in each jurisdiction at any given time – perhaps 2-3 at most, unless
  - the “relevant PPP authority” review unit (usually in Treasury),
  - agency resources; and
  - consultancy capacitywere significantly increased by some extraordinary means;
- the “search” process would initially be conducted in the strictest secrecy;
- **new** additional private sector financed initiatives (after the first batch) would roughly take the place of earlier PPP projects coming to completion of construction, so there was not a tidal wave of initiatives built up;
- projects that are not high enough in the priority of a portfolio minister for government funding to be sought should not be proposed (except unless some very special circumstances applied) for private financing on the basis that a project that government won't commit finance to is really unlikely to appeal to a private entrepreneur; and
- a government financed version of the project should be announced **only after** full government funding has been included in the forward estimates and this provision must precede the issue of a Call for Expressions Of Interest to the private sector.

**Suggestion 1 : An Alternative Test – Is there enough of an advantage in a BOOT/PFP solution that the winning private sector consortium bidder can still share some of his gain with the government beneficially?**

This is more a test of the degree to which private sector consortia may be **attracted** to bid for social infrastructure opportunities which seem to have a zone of potential gain large enough to encourage a private sector party to consider owning and operating a major item of public infrastructure. Again, I am recommending a gedankenexperiment - an attempt to enter the mind of a private sector bidder. What does our experience teach us?

Public infrastructure projects where market risk is taken by the private sector (highways, car parks, some water treatment plants etc) are akin to the sale of a business opportunity and may be viewed by the potential buyers as acquiring an additional firm or a division within a corporate group (eg private sector investigations would include acquisition due diligence, evaluation of free cash flow, consideration of opportunities for integration with existing pursuits or future operations etc).

Reviews of NSW Contract Summaries (Working with Government website [www.treasury.nsw.gov.au](http://www.treasury.nsw.gov.au) , 2012) for social infrastructure “offerings” that routinely report the extent of the victory over the PSC of, not initial bids but, the finally accepted private sector proposals expressed as a net present cost (to government) show a wide range (2% would be close to a draw at this level of measurement error and 20% near the upper limit) with a broad average value of about a 10% margin in NPV terms.

The size of the works component seems much more important than the savings in the operating phase probably because :

- the difference (PSC operating costs v private sector operating payments) is spread over a 20+ year period. Discounted, a private sector operating cost advantage of say 10% may be reduced to 2-3% ; and
- “core services” were rarely contracted out in Australian BOOT/PFPs of the late 1990s to the present because of NSW and Victorian Labor governments’ policies, of the time.

By contrast, the comparison of an estimate containing an allowance for completion risk in the adjusted PSC with the fixed construction price in the private sector version of the project, coupled with a more condensed construction period, seems to account for the majority of the average 10% margin in NPV terms over government procurement. The gains are all early in the contract and less affected by cashflow discounting.

In addition there are :

- tax benefits for the private sector (of widely varying extent, depending on the structuring adopted) and
- opportunities to gain during refinancing of the project, allowing the owners to withdraw their stake and replace their initial investment with debt.

From these returns, must also be subtracted the costs of bidding, conceivably \$5-10m per bidder, albeit deductible (or carried forward as “loss cushions” in later years for the losers). No wonder the conventional wisdom recommends projects with big capital outlays and long concession periods to repay the investment.

What should we be looking for, then in potential BOOT/PFP candidate projects ? On this basis, not so much proposals with huge capital costs, but private sector owned and financed projects with :

- shorter construction periods than the same project managed by government;
- if not just a high proportion of early capital cost (advantage) to long, drawn out operating costs, projects where outsourcing of the highest cost services to the private sector is **also** feasible, as it was in Britain in the late 1990s.<sup>13</sup>

In addition, identifying each separate element of the reference project that could be advantageously transferred to the private sector should also be considered. Maybe the whole project cannot be outsourced. The best solution may not just be a choice between all or nothing, but some key element.

Certainly aspects of projects that make good returns for a private owner – although **not** necessarily unsolicited suggestions of the private sector that may in the event offer little that government seeks – should be identified. In most forums, when they do speak up, the private sector parties show diverse preferences depending on whether they are a :

- financier or finance arranger;

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<sup>13</sup> For example, projects reported in reports of the UK National Audit Office and House of Commons Select Committee on Public Accounts on many UK PPP projects from the mid 1990s onward.

- constructor;
- service provider/operator; or an
- owner investor.

A lot of the proposals **offered** by government for BOOT/PFP style delivery seem to be projects of a type with a reputation for uncontrollable budgets or completion dates. The private sector usually seems to be **seeking** projects with large construction costs, however. Not quite the same thing. The operator element of the private sector consortium is often in the background of either side's thinking. Do both think the operator gets to operate the infrastructure for a fee, for a long time whether he's involved in the asset's creation or not? Probably.

There are two separate issues. Remember, even if an examination of history can show what makes a good deal - quite separately, is it possible in practice to see agency plans and proposals enough time in advance of official government announcements to adequately consider them for private financing and ownership? We need more.

**Suggestion 2 - Is it better to review potential projects from the essence of their suitability to a PPP style contract rather than from a schedule of firm agency project plans ? Should the potential projects be assessed as isolated initiatives akin to unsolicited proposals?**

### **True Role of Private Ownership and Financing**

The accepted order (eg Infrastructure Australia, 2008 and Centre for Excellence and Innovation in Infrastructure Delivery, 2010) of the key decisions of government should be to :

1. decide what project it desires (however financed), **then**
2. examine the potential for private sector procurement, **then**
3. announce that the project will proceed as a PPP style opportunity.

This is necessary for two reasons. It correctly puts the investment decision ahead of the choice of procurement method and ensures that the government has the means allocated to go ahead even if no value enhancing offers are forthcoming from the private sector bidders. Second, it ensures that the economic merit of the project is firmly established before consideration of any incremental gain from entering a sophisticated and intrinsically costly delivery arrangement.

It is common for programs of works to be developed in the planning department of an agency in the expectation that a government entity (almost always the agency to which the planning department belongs) will supervise the construction of the asset using allocations from the Consolidated Fund or if the agency is a statutory authority from retained earnings or government guaranteed loan funds arranged by a state Treasury Corporation.

But a decision to appoint an agent from the private sector is more than just the replacement of government funding by private finance. The real motivation for such an approach is to arrange for an approved and essential asset to be supplied by a private sector party who will perform the procurement **and operate the infrastructure more cost effectively** than the government owner could. The investigations of project merit and of the efficiency of procurement are different and, for government, examinations of project merit come first.

## **6. CONCLUSIONS AND RECOMMENDATIONS FOR “PLANNERS” AND “POLICY”**

My conclusion is that it is not generally practical to publish a “pipeline” of potential BOOT/PFP projects separately from a major government works plan – any BOOT/PFP pipeline should always be a subset of the whole works program.

The projects to be offered for private financing and ownership should have a comprehensively evaluated **public** finance “fall back” version which means project planning should be very advanced before announcement so at least government negotiators could rise from the bargaining table if only an inferior bargain could be struck with the preferred proponent at the eleventh hour.

The successful, but requisite, transport plans of 40 years ago took 5 years to develop and 40 years to implement after which most of the main elements were done (sometimes in altered form) but this is not just an example of near omniscience. As a forecast of what would happen, the Plans, though ambitious, were pretty good but in fact they weren't just forecasts. Each was also a target. There is no current equivalent forecast for the Australian states that I can see in mid 2012.

For practical reasons (and recognising that the modern world is generally unlikely to accept my criticism that we need to reconsider if we were hopelessly wrong in rejecting old style, detailed planning) my practical suggestion is that :

- each transport authority now considers only their one best project as the opportunity they **may** offer a private sector consortium for delivery. A project which is well down a minister's priority list for government funding is unlikely to be attractive to anyone in the private sector.
- for each major works initiative, a simultaneous examination of the most viable proposal's suitability for BOOT/PFP delivery should occur, **BEFORE** any official announcement of the project is made.
- no “pipeline” list should ever be published until at least Treasury is convinced that the projects :
  - are economically the best solutions to whatever is the problem they are expected to solve (ie genuine cost benefit appraisal);
  - offer some way in which a suitable level of reward to the private sector from undertaking the risks of the project was established at a price government could justify paying (ie risk transfer analysis and financial appraisal of the project as a successful project financed undertaking).

Unsolicited, for Western Australia making its own way at this particular time, I would point out that the risks to the Consolidated Fund of undertaking more than one really large, complex capital projects with scope for (but no certainty of private sector upside), by government agencies unfamiliar with the BOOT/PFP style of contract when there are many examples of early failure elsewhere (NSW and Victoria) seems optimistic. In pioneering NSW, 4 contracts were signed in the first 6 years, 15 in the first 9 with a 20 year average of 2 per year. The current policy of WA Treasury of progressively tackling harder projects, learning, growing as they go, is definitely correct.

Nor is it just a matter of hiring the best private sector expertise there is to make a spectacular, solid start. Nowadays very good private sector advisors are available, but all the best private sector advisors have had hard experiences at some time, their best advice notwithstanding.

Finally, there are examples of smaller scale successful projects too, and it is no shame to remain alert to the opportunity to do simpler, smaller projects initially. An initial “pipeline”, however devised, should always have some of these.



PLANNING FOR EFFECTIVE PROJECT PIPELINES

**APPENDIX - PRIVATELY FINANCED PUBLIC INFRASTRUCTURE PROJECTS  
NSW (\$m)**

<b>Project Description</b>	<b>CODE</b>	<b>Cost (A)</b>	<b>Cost (B)</b>	<b>Year</b>
Sydney Harbour Tunnel	F	670	1407	86-87
M4 Motorway	T	230	389	89-90
Port Macquarie Hospital	**	46	75	90-91
M5 Liverpool to Beverley Hills Section	T	315	504	92-93
Liverpool Hospital Car Park	Ø	6	10	93-94
Mini Hydro Schemes	Ø	52	83	93-94
M5 Western Motorway Extension	T	65	103	93-94
Blue Mountains Sewerage Tunnel	**	80	127	93-94
Macarthur Water Treatment Plant	O	125	199	93-94
Prospect Water Treatment Plant	O	195	310	93-94
Hawkesbury Hospital	**	47	73	94-95
Light Rail Ultimo – Pyrmont	T	84	130	94-95
New Southern Railway	T	716	1110	94-95
M2 NorthWest Transport Link	T	644	998	94-95
Illawarra-Woronora Water Treatment Plant	O	150	232	94-95
Randwick Hospital Car Park	T	23	34	96-97
Olympic Village	**	445	663	96-97
Olympic Stadium	T	620	924	96-97
Eastern Distributor Road	T	700	1036	97-98
Olympic Multiple Use Arena (Superdome)	T	277	410	97-98
St George Hospital Car Park	T	12	18	98-99
Extension of Light Rail to Lilyfield	T	21	30	99-00
St Mary's Biosolid Vermiculture Plant	O	2	3	99-00
Prospect Water Treatment Plant–Supernatant Filter	O	20	27	00-01
M5 – Moorebank Avenue Interchange	T	35	47	01-02
Cross City Tunnel	T	680	877	02-03
New Schools One	P	86	111	02-03
Lane Cove Tunnel	T	1,100	1386	03-04
Eastern Creek Waste Treatment Plant	O	70	90	02-03
Western Sydney Orbital	T	1,850	2387	02-03
New Schools Two	P	131	151	05-06
Newcastle Mater Hospital	G	138	159	05-06
Long Bay Gaol and Forensic Hospitals	P	128	147	05-06
Bonnyrigg “Living Communities” Social Housing-	P	733	843	05-06
Railcorp Rolling Stock	F	3600	3960	06-07
GMSI Medical Imaging Service Contract	F	*	*	07-08
Orange Hospital	P	194	204	07-08
Colongra Gas Transport and Storage Facility	Ø	70	74	07-08
Camellia Recycled Water Plant	Ø	100	100	08-09
Royal North Shore Hospital (Stage 2)	P	950	950	08-09
<b>TOTAL</b>		<b>15 410</b>	<b>20 381</b>	

A – estimated total asset cost **when the contract was signed**

B - @June 2009\$ equivalents for “real\$” scale comparison over the 20 year period

\* - various small value items

## Key To Codes

FIRST,

**F – Finance Leases** as “leases” recharacterised as a Sale and (associated) Loan - a type of supplier finance.

**P - Purchase arrangements with a deferred payment** (akin to the old classification of hire purchase arrangements arising in this case via the securitised financing structures used by the private sector party in which the asset is from the start (and always) an asset of the government, leased to and then re-leased from the private sector.

So these (Codes F or P) the assets are ON Balance Sheet for slightly different, but similar reasons.

THEN,

**T - BOOT arrangements.** Here, the assets begin life as assets of the private party and revert to government annually by degrees as a depreciating but amortising asset of the private party over the concession contract's life.

**O - BOO arrangements.** Here, the assets are never the asset of the government party which usually just purchases services from the private sector parties using assets which are either removed or are exhausted at the end of the contract term.

**G -** A single instance of a Grant by government to a Third Sector (Charitable Society) owning and operating a public (but always private) hospital.

FINALLY,

**\*\* - a diverse set of exceptions and special cases,** where, the

- Port Macquarie Hospital was purchased by the government after a dispute – so, now ON the Balance Sheet of government
- Blue Mountains Sewerage Tunnel was financed by government with some assets contributed by subordinate local government owners – ditto, ON
- Hawkesbury Hospital was beneficially refinanced by government before the service period of the contract was expired – ditto, ON and similar to Port Macquarie Hospital, and
- Olympic Village in which the residences were always privately owned but leased from the private owners for the brief duration of the Games – so, never a government asset, but a “true”, and extremely short term operating, lease, so OFF the Balance Sheet of government.

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