

Improved PFI/PPP service outcomes through the integration of Alliance principles

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Abstract

This paper explores management and governance of private finance initiatives/public private partnership (PFI/PPP) projects via the integration of Alliance concepts into the typical concession agreements. In this context, appropriate governance is defined as achieving and improving long-term service outcomes. This paper presents the findings of a study that has investigated aspects of contract structure, risk management and those features of concession agreements that drive service behaviour. The study entailed industry surveys and the analysis and comparison of infrastructure projects in Australia. The findings give rise to contributions and impediments to the successful governance of PFI/PPP projects through structuring agreements to achieve improved value for money.

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1. Introduction

Recent private finance initiative/public private partnership (PFI/PPP) projects implemented in the developed world have focussed heavily on achieving value for money (VfM) outcomes for governments through the application of robust processes. Robust processes have been articulation of clear service obligations through output style specifications ([Appendix 1](#)). Commercial benefit, public interest and community acceptance are tested through the project procurement and bidding processes and are rectified contractually with terms and conditions that clearly detail service charge regimes, risk allocation and the expectations of all concerned at the time of contracts are signed. Ongoing behaviour of the participants and incorporation of any nec-

essary changes are managed through the administration of these contracts. This ongoing management is in its infancy and equitable. Transparent techniques of management are still being developed.

PFI/PPP contracts are long-term agreements that, by their nature, require flexibility to ensure that appropriate service outcomes are achieved over the full duration of the agreement. Changes are inevitable, yet processes for the ongoing management, governance and control related matters associated with sustaining the initial VfM objectives are still developing. In this paper, governance and control is defined as achieving and improving long-term service outcomes.

This paper outlines current PFI/PPP governance processes and details specific areas the taxpayers expect through long-term government involvement and regulation. A number of areas of debate are identified and inclusion of Alliance contracting concepts is proposed as a mechanism for future improvement. Alliance concepts are explored and tested through surveys of clients and providers of PFI/PPP projects to quantify the perceived area of weakness and potential mechanisms forward. Long-term issues

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with respect to risk, sustainability of the initial VfM, and facilitation of a process to manage changes have been analysed through a series of case studies investigating a number of transport projects. The focus of this analysis is to maintain and improve service outputs for PFI/PPP projects.

2. Long-term issues and flexibility

2.1. Current PFI/PPP governance approach

Current PFI/PPP processes for the evaluation and establishment of long-term outcomes are similar in jurisdiction such as the United Kingdom, Canada, The Netherlands, South Africa and Australia. The overall approach is similar to the process detailed in Fig. 1 [1–3] where a business case establishes the need for the project and a community’s interest is quantified and tested via either an implicit or explicit public interest test. The financial benefits of the project are quantified through the establishment of a reference project and measured via a tool called the public sector comparator (PSC). The required service outcomes are specified in terms of an output specification that is released during the bidding process as part of the project brief and request for tender.

The expectations detailed in the project brief and request for tender are ultimately translated into terms and conditions of hard money contractual agreements involving both the performance standards expected and the financial structuring of the PFI/PPP. These terms and conditions establish the ground rules for ongoing governance. The PSC has been used to:

- (a) Quantify that the decision to adopt a PFI/PPP procurement strategy is appropriate.

- (b) As a reference by which testing and comparison of tender submissions can be performed.

The PSC is therefore a most important measurement of VfM and thereby warrants closer evaluation in terms of the appropriateness, or otherwise, of relying heavily on this measurement in the establishment of the dynamics for long-term management of a PFI/PPP contract.

One of the most recently released policies is that of the Australian Government’ Department of Finance and Administration [4] states that PFI/PPP should be used where it can offer superior value for money outcomes relative to other procurement methods. In this context value for money is the best available outcome after taking account of all benefits, costs and risks over the whole life of the procurement. The VfM test is a comparison of the private PFI/PPP proposals against the PSC which consists of three core elements. They are raw cost; competitive neutrality adjustments; and risk (transferred and retained) [5]. Similar measures are adopted by other jurisdictions (Appendix 1). Most of relevant measurements include that the PSC develops and prices a reference project that incorporates an assessment of innovation, risk transfer, improved asset utilisation and service outcomes and management synergies (Appendix 2). Questions remain about the appropriateness of using the PSC as a complete test for value and appropriateness of PFI/PPPs.

2.2. The appropriateness of the PSC

Major issues relating to the application of the PSC are:

- The PSC is limited in its quantification of value.

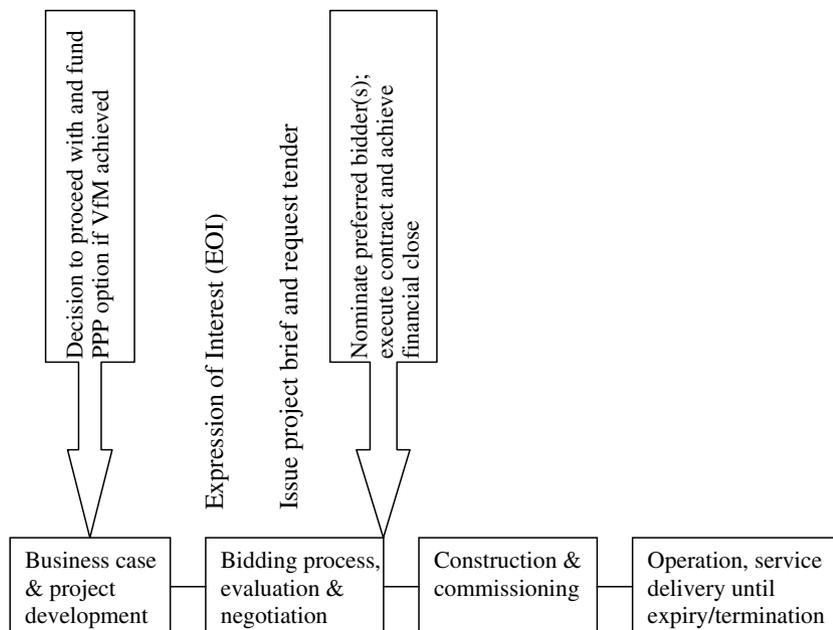


Fig. 1. PFI/PPP relationship continuum.

- Wide variation between valuations adopted in the PSC and pricing developed by proponents can lead to major delays and uncertainties in the implementation of a PFI/PPP.
- The use of the PSC to drive the selection of tenderers toward a hard money contract lacks the necessary flexibility to facilitate optimal long-term outcomes.

Should the PSC be used as a rigid hurdle of a reference project decisions may be incorrectly weighted toward achievement of a risk adjusted net present value rather than finances being an important factor amidst other criteria. This point has been recognised in the UK reviewers [6] as exemplified by the UK Auditor General [7] comments

...ensure that value for money decisions are not based on one-dimensional comparison of single figures.

A classic example of qualitative factors driving a selection process was the Spencer St Station project in Victoria [8]. This project also raises other points in terms of flexibility. Broadly the additional factors include: service quality; planning; innovation; economic externalities and quantification of public interest [9].

The emphasis of current government policies and procedures is on identification of appropriate projects and the engagement of the best proponent to manage and deliver the service (Fig. 1). There are numerous examples of PFI/PPP projects that have struggled to manage variations to the expectations of the parties where contracts were signed. Examples include Latrobe Hospital, Channel Tunnel (UK), Deer Park Women's correctional facility [10]. Inevitably, the root cause of the problem can be linked to a lack of timely understanding of the breadth of issues and circumstances that may materially positively or negatively influence the sustainability of a PFI/PPP project. Appropriate mechanisms to modify the contractual agreement need to be created to sustain VfM and appropriately manage such issues.

2.3. Societal interests

Protection of society's interests can be considered in terms of equity. Equity is defined as [11]:

Benefit (distributional) equity. Ensure those who benefit from infrastructure share the costs and that those who are disadvantaged are compensated.

Access equity. Ensure socially desirable access to infrastructure services is maintained, at least to a minimum standard.

Intergenerational equity. Ensure the cost of infrastructure is fairly distributed over the life of the asset such that current users do not pay in advance for future demand and that future generations are not penalised because of today's decisions.

The need for integrated planning and protection of society means degree of necessary regulation. Logical grouping of the issues for sound governance of PFI/PPP projects are presented in Fig. 2.

Potential benefits from the use of PFI/PPP contracts for government and private proponents are very evident, with governments seeking to enter PFI/PPP agreements where productivity gains can be quantified.

Given productivity and profit will both be enhanced by gains in efficiency, it can be safely assumed that both these aspects will be vigorously pursued. The protection of society has historically been the responsibility of government. However, given their strong incentive for involvement in concession contracts it is considered prudent to involve an independent party to assess and administer such contracts. Such a party would have similar social responsibilities to the role of 'The Regulator' in the privatised utilities in the UK. The issue remains as to whether a regulator would add or detract from a contractual agreement.

2.4. Regulation

Regulation has connotations of central control, which, in many ways, goes against the whole philosophy of maximisation of efficiency gains by encouraging market forces and open competition. The role of regulation to be investigated in this context is not that of full control but rather managing the reasonable limits expected by society.

The need for ongoing regulation during the concession period relates primarily to:

- Variations to the concession agreement due to changes for which the proponent is not responsible.
- Control of pre-agreed service criteria such as maintenance.
- Contract administration.
- Independent body for receipt and investigation of complaints, e.g. incorrect billings or illegal connections.
- Environmental issues such as waste, leakage.
- Liaison between stakeholders and project manager for media releases.

The benefits of having a 'Regulator' are particularly evident in the scenario where PFI/PPPs are only possible if supported by substantial trade concessions, rewards and favourable risk allocation in the agreement.

The difficulty in the introduction of a regulator is that the assumed authority may undermine the commercial integrity of the original financial transaction established during the tender process. This is particularly so if a regulator is called upon to agree or re-set the user fee. The requirement for a form of regulation is unquestioned. However, the appointment of a regulator would appear facilitating the current contractual structure of PFI/PPP projects.

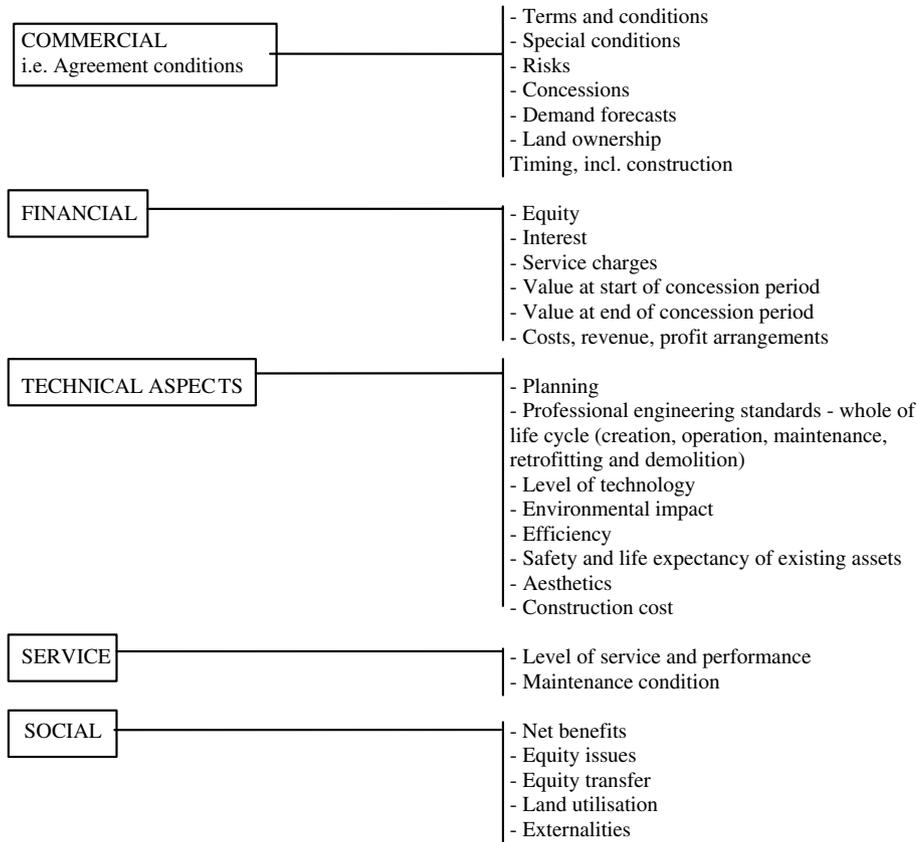


Fig. 2. Issues for consideration by regulator.

3. Hypothesis

Having identified areas of governance in traditional PFI/PPP projects it is hypothesised *that utilising Alliance contracting techniques, can result in improved long-term service outcomes through enhanced governance structures and hence, greater value for money.*

This hypothesis is tested using a survey on industry participants from both the public and private sectors and analysis of a series of transports PFI/PPP case studies (Appendix 2). Comparison of value for money tests among numerous governing bodies in Australia, the UK and Ireland also forms part of the hypothesis testing (Appendix 1).

4. Alliancing contracting for future

Alliance contracting and PFI/PPP methods seek to explicitly identify and manage risk. Conceptually both techniques approach risk differently. PFI/PPP projects seek to have proponents provide a hard money bid and take full responsibility for risks allocated to them. Alliance contracting facilitates identification of project risks and opportunities by project parties prior to establishing a target price and mechanism for both risk and reward. Details of these risk allocation differences are summarised in Table 1. The lack of certainty in the final project cost for Alliance contracts is a concern for proponents and financiers of

PFI/PPP projects. However, it is considered that improved management of project risks is critical to gaining improved service outcomes (Table 1). The subtlety of terminology for these projects requires explanations.

4.1. Project Alliancing

Alliance contracting¹ is used in the context of this paper to mean “an agreement between parties to work cooperatively to achieve agreed outcomes on the basis of sharing risks and rewards” [14]. Alliance contracts also refer to relationship contracting in general.

4.1.1. Essential features of a project Alliance

Ross [12] reveals that a Project Alliance will be successful if it would contain the following features:

- Apart from certain obligations (e.g. the requirement for the owner to reimburse project costs) that inherently must rest with one party, performance obligations are stated to be collective.

¹ For a more detailed definition and background of Project Alliancing refer to Ross [12], Chew [13] and Gallagher and Hutchinson [14].

Table 1
Comparison of risk allocation structure

Risk	PPP preferred allocation	Alliance “Pure”	Public private alliance (PPA)
Site risks (site conditions, approvals, environmental)	Private party	Shared except in the case of wilful default	Shared except to the extent caused by a breach of the contractor
Design, construction and commissioning	Private party	Shared except in the case of wilful default	Shared except to the extent caused by a breach of the contractor
Financing	Private party	Government	Private party
Tax	Private party	Government	Private party
Operating and maintenance	Private party	Shared except in the case of wilful default	Shared except to the extent caused by a breach of the contractor
Market	Private party except to the extent of any specific government commitments (such as availability payment, changes in traffic network, interface, etc.)	Government	Shared except to the extent caused by a breach of the contractor
Industrial relations	Private party	Shared except in the case of wilful default	Private party
Legislative and Government policy	Private party except for changes in law/policy of the State directed specifically at the project	Shared except in the case of wilful default	Shared except to the extent caused by a breach of the contractor
Force Majeure	Private party except government holds some risk of service discontinuity subject to insurance availability	Shared except in the case of wilful default	Private party except government holds some risk of service discontinuity subject to insurance availability
Asset ownership	Private party (or as defined in the agreement)	Government	Private party (or as defined in the agreement)

- All parties win or lose together. Reimbursement to the non-owner participants (“NOPs”) is 100% open book and structured so that the NOPs receive an equitable sharing of gain and pain depending on how actual outcomes compare with pre-agreed targets in cost and non-cost performance areas.
- All decisions made by the Project Alliance Board (“PAB”) are to be unanimous. The PAB comprises of 1 or 2 senior representatives from each participant.
- All members of the integrated project team are selected on a “best for project” basis, headed by a Project Manager.
- There is a strong commitment to resolve issues within the Alliance with no recourse to litigation, except in the very limited class of prescribed “Events of Default”.
- All aspects of project delivery are focused on high performance teamwork and “breakthrough” outcomes founded on an Alliance Charter that sets out the mission, objectives and behavioural commitments of the participants.

4.2. How Alliancing techniques could be utilised in PFI/PPP projects

Utilisation of Alliancing techniques on PFI/PPP projects has been mooted and used in part on many occasions in the previous decade, yet there has not been a project to

implement a full alliance. There are however potential benefits in utilising some alliance concepts without implementing a full alliance.

Shepherd [16] highlights that alliancing is possible on a PFI/PPP project, and cites the Sydney Harbour Tunnel as an example where it was developed more on a partnership (or alliancing) approach. The project was delivered on an ‘open book’ where the contractor worked closely with the government road authority on all aspects of the development of the project.

An example in project finance of an Alliance contract is the Australian government’s delivery of complex defence equipment projects. Unlike infrastructure projects such as roads, schools, hospitals and prisons, the defence sector projects range from relatively straightforward projects such as accommodation to highly complex projects involving high technology and customised requirements (such as submarines, ships, fighters, etc.). The size and complexity of those projects increases the risk of delay and default especially where the technology is new and it is untested [17].

The Fitzgerald Review [9] of the Partnerships Victoria policy, includes a recommendation that;

...the state seeks to pilot new financial and partnership structures that combine the benefits of private sector risk taking with government’s comparative advantage in securing funds.

In a recent performance audit report on the Northside Storage Tunnel Project, the New South Wales Auditor-General [18] stated that:

the concept of an alliance offers the promise of a successful outcome. But it brings its own risks. One is the risk of not getting the incentives and sanctions right. Another is that the parties become too close. The ‘owner’, the party who initiates, and will ultimately own the project, needs to ensure that the alliance delivers value for money. An alliance should not compromise the principles of accountability and transparency that are so integral to the public sector.

Clearly, the need to develop project relationships has been recognised and it is now time for PFI/PPP project sponsors and financiers to reconsider their risk management approach and develop more appropriate forms of delivery such as alliancing. Efficient risk allocation may achieve timely and cost-effective delivery targets, instead of transferring risks which will involve paying a risk premium to the contractor for taking those risks, and hence increase project costs.

4.3. Why Alliancing techniques may not be applicable

Many industry commentators believe in the theory of alliancing but they do not see that it can cross over into mainstream delivery methods because of commercial realities. Critical issues that need to be overcome for alliancing techniques to become widely applied are:

Alliancing is premised on risk sharing, therefore how can clients (especially government) integrate that with their desire for budget surety?

PFI/PPP projects frequently transfer as much risk as possible to the private proponent, in an endeavour to gain budget surety, and sometimes overlook the maxim “place the risk with the party best able to manage it”. In Australia, alliancing is gathering acceptance for public sector projects, being successfully utilised on nine out of approximately 50 projects in 2001 [12]. The implemented risk sharing mechanisms have limited variations to changes of existing scope.

Alliancing is only relevant if applied to the totality of a project

Alliancing has been used as a strategy to rescue distressed projects with apparent positive outcomes [19]. Difficulties in applying this technique exist for a component of a project due to the need for a specific project culture. Strategic subdivision of a project may negate this issue.

Incentives exist in current PFI/PPP contracts

Incentives exist within some PFI/PPP contracts; however, they are dominated by abatements or disincentives. Thus, PFI/PPP contracts differ from alliances in that the incentives are based on traditional scope of work contracts and allocation of risks. Thus, PFI/PPP contracts are less flexible.

Alliance’s are only suitable for a specific few project types
Some argue that all PFI/PPP projects are not suitable for delivering on an alliance basis [13]. Alliancing tends to suit high risk and complex projects where the project scope is not clearly defined.

Alliancing is unproven for long-term service agreements
There are ongoing concerns that the rigidity of PFI/PPP contracts impedes long-term service changes without risking the commercial integrity established during the bidding process. Alliance contracts are bid on the basis of agreed margins and are thus not commercially eroded should changes occur.

Alliancing has the potential to undermine financiers cost surety

Should an adverse high value, low probability risk materialise the application of alliancing to PFI/PPPs may expose the private sector proponent (and financiers) to an untenable risk exposure. This fundamental issue needs to be addressed prior to alliancing principles being viable for PFI/PPP projects.

Given the issues outlined it is apparent that there are two key impediments to the application of alliancing to PFI/PPP projects being the availability of suitable projects and the financiers willingness to open ended financial exposure. The current appetite from investors is such that despite the very low probability open liability will not be agreed to. Therefore, the market will not currently accept the financial structure of a PFI/PPP being exposed to alliance concepts. The benefits of alliancing are such that their partial introduction as a subcomponent of the agreement is worthy of exploration.

The remaining hurdle is the availability of suitable projects and industry acceptance. These aspects have been tested via a survey investigating the potential for a hybrid alliance scheme that does not involve financiers. The survey thus focuses on clients and procurers except financiers as participants in an alliance arrangement.

4.4. A survey on Alliancing contracting

A survey distributed to fifteen leading PFI/PPP procurers in Australia [19], and a related study which entailed interviews with public sector clients [20] have been analysed to partially test the hypothesis mentioned in Section 3. While it is not possible to draw statistically significant results from such a small sample size, trends in data which lend themselves to some conclusions have been identified.

The survey took in contractors that generally operate throughout Australia; however, some had operations stretching to South East Asia, the Pacific, United Kingdom, New Zealand, Africa and the Middle East. The majority had capital works turnover in excess of AUD 500 million, along with more than five hundreds staff employed. The construction undertaken by the organisations covered civil engineering (including, highways,

bridges, heavy civil, etc.), building, industrial facilities (power plants, refineries, water treatment plants, etc.) and mining. The interviewees all had experience in a range of traditional, alliancing and PFI/PPP projects. Whilst there has been limited application of Alliancing, they were more common in the private sector than the public sector.

In terms of project techniques utilised throughout the project lifecycle, it was found that many techniques initially developed for an Alliancing delivery are being utilised in other project delivery methods. Hence, even though Alliancing may not be the actual delivery method stated on the project brief, its techniques and philosophies have permeated through to other methods.

This adds weight to proving the hypothesis, in that the Alliancing techniques that have been proposed for introduction into PFI/PPP projects are currently being utilised successfully in other traditional forms of project delivery. Other findings from the survey show that Alliancing concepts are more likely to be utilised by companies who had senior executives “championing” the method. A champion is someone who could break down previous barriers and philosophies to this approach.

4.5. *Private sector viewpoint*

Risk allocation is still viewed as the largest “hurdle” to overcome in creating proper Alliance contracting, especially within the public sector. Where the public sector has implemented partnering principles, on occasions where contract conditions were subsequently enforced the partnerships were seen to crumble.

All parties agreed that shortcomings, some serious, existed in contractual relationships between clients and contractors and these had a negative effect on project outcomes. Many existing contractual relationships, particularly traditional forms, lead to adversarial behaviour between parties and this has been a negative effect on project outcomes. Interviewees were asked specifically if they believed in Alliancing concepts could be integrated into traditional PFI/PPP methods, to which the majority believed that there was definitely scope to implement such techniques, so long as the financial surety of the arrangements could be maintained.

4.6. *Public sector viewpoint*

In a review of clients perceptions within the Australian construction industry towards Alliancing [20], it was found that there is a clear need for improved contract structures, given the inability of current contracts to consistently meet clients demands and expectations. An overwhelming proportion of clients expressed the attitude that they were prepared to consider different contractual arrangements if they could be demonstrated to have real benefits. Again however, it is quite difficult to demonstrate tangibility.

Numerous public sector clients agreed with the concepts in theory, but felt that it was difficult to prove that it was in the “public interest”, and impeded by many probity issues. General attitudes towards the adequacy of current contracting were that contracts were far too complex and need to be made simpler. It was felt by many that standard conditions of contract were too adversarial and that the risks are weighted against the contractors. Whilst many agreed that there is a better understanding of major issues such as risk allocation, there was still much room for improvement. The industry is still accused of being overly litigious, which is the result of the competitiveness caused by contractors accepting lower margins.

Clients understood the excessive costs of inappropriate risk allocation. Nevertheless, there is a degree of cynicism that must be overcome before Alliancing will be entertained by clients. Most clients are prepared to consider forms of risk sharing if it can be demonstrated that it will benefit the project outcomes. In general, clients are supportive of sharing risks and rewards and losses. However, some remain sceptical about the contractor’s willingness to share in any losses, as they saw that the contractors tended to become adversarial in such circumstances. Clients were open-minded about what form the procurement strategy would take, whether it will be a traditional contract or some form of alliance. However, clients argue that before entering into any form of Alliance contract, all parties should ensure that the contracting parties were compatible and appropriate for the procurement strategy and scope.

4.7. *Inferred industry position*

Industry confirms that there are many deficiencies in contract relationships generally and that Alliancing techniques are viewed favourably, yet have not gained wide industry acceptance. Proponents were open to utilising alliancing concepts in PFI/PPP projects.

5. **Application of Alliance concepts to achieve greater value for money**

Prior to Alliancing concepts being applied it is important to understand the drivers behind why a different governance structure is required. Efficient risk allocation leads to greater value for money and these concepts are further explained in the following sections.

5.1. *An overview of risk allocation*

The risk allocation principles of the various PFI/PPP policies are easily written, but much more difficult to implement. The objective of the policies is efficient/optimal risk allocation and that risks should be allocated to the party that is best able to manage the risk for the least cost.

In a survey of PPP sponsors, government entities and financiers carried out in 1999 by the Victorian government [21], respondents ranked three factors as having the most

important impact on the actual (final) risk allocation for PFI/PPP projects were:

- commercial requirements;
- bargaining power;
- the financiers' requirements.

Rational risk allocation and the government's preferred risk regime were ranked fourth and fifth, respectively. The survey showed, not surprisingly, that sponsors expect a risk premium in return for risk bearing. Respondents also indicated that bargaining power was seen as the next most important factor, as the bargaining power largely rested with the government, at least until the selection of the preferred proponent.

5.2. The value for money proposition

The underlying rationale for PFI/PPP projects is that they must offer value for money (VfM). Value for money is an expression of the economy, efficiency and the effectiveness in which the public sector bodies operate. Generally, the major factors considered in PFI/PPP policies when assessing value for money include: risk transfer; whole of life costing; innovation (financial, structural, service and technical); asset utilisation; output based specification; performance measurement and incentives; and capturing of private sector management skills. A comparison of VfM approaches for a range of countries is detailed in [Appendix 1](#). The value for money of a project is easier to demonstrate where there has been an effective price-led competition [22,23].

However, demonstrating value for money is not just simply a mechanical PSC comparison as mentioned previously in [Section 2.2](#). It may include achievement of following aspects of the project:

- effectiveness and quality in the service provision,
- involvement of the relevant stakeholders (including environmental and community),
- review process and performance measures,
- encourage a learning culture and training programme for the public sector – skills transfer;
- governance arrangements by both public and private sectors (through performance, accountability and transparency, rather than just risk transfer),
- value management and value engineering;
- robust, demonstrable and auditable financial analysis through open-book auditing [24].

It is argued that the introduction of alliancing concepts would enhance VfM with compared to current PFI/PPP processes as follows.

Risk transfer. A greater number of risks are shared under an alliance approach and value is gained by both parties identifying and investigating specific risks prior to setting the target cost for the project. This has the scope

to reduce inefficient pricing of risk that results in increased risk premium costs by avoiding a party pricing risk outside their direct control. In an alliancing PFI/PPP contract, value may be created by the asymmetry of interest between the government and the private sector. The issue of efficient risk allocation is discussed in the following section.

Innovation. Financial innovation and structural efficiencies are well captured in current PFI/PPP processes. However, scope for innovation in service and technical issues is limited due to these matters being addressed as part of the bidding process and then translated into rigid contract outcomes. This has led to a high level of conservatism as consortia seek defined outcomes, and the potential to capture innovation during the life of the agreement. Opportunities for innovation become low due to the difficulties associated with changing the agreement. Alliancing provides incentives to foster ongoing innovation.

Management skills. The drive for delivering management and operational efficiencies by using private sector management skills in PFI/PPP projects is laudable; however, this process lacks a mechanism to fully capture skills and service understanding within the public sector. The integrated team approach of alliancing contracts provides a mechanism to benefit from all expertise.

It is considered there would be little change in other VfM factors if alliancing principles were introduced into PFI/PPP projects.

5.3. Comparison of structures for risk allocation

[Table 1](#) details an overview of the risk allocation under a PFI/PPP structure, a pure alliance structure and a hybrid alliance PFI/PPP structure. Given the need to retain current financing structures for PFI/PPP projects it is clear that the risk allocation in typical pure alliance contract requires modification. There is also scope to find middle ground between the preferred risk allocation of PFI/PPP projects and pure alliance projects. A proposed risk allocation that incorporates both of the former issues is detailed in [Table 1](#) under conceptual alliance principles in PFI/PPP projects.

A detailed set of recent risk allocation on major PFI/PPP projects such as Spencer Street Station (2001), Cross Sydney Tunnel (2002), Mitcham Frankston Freeway (2004) and Westlink M7 – Western Sydney Orbital (2003) is provided in [Appendix 2](#). Analysis of the risk allocation for these projects is in line with the risk allocation framework detailed in [Table 1](#).

5.4. Value for money in Alliancing PFI/PPP projects

It has been demonstrated that alliancing principles have the potential to add value in terms of innovation and management. Furthermore, it appears there is scope for a hybrid alliance PFI/PPP structure to add value through efficient risk allocation. This has changed risk allocation specifically to address long-term governance of a project. The risk allocation focuses on the provision of a flexible

mechanism to manage the technical, service and social aspects of a project without compromising the financial and commercial aspects (Fig. 2).

6. Mechanism forward

To confirm the viability of the proposed hybrid alliance PFI/PPP structure details the process and is overarching governance controls that have been developed. The hybrid models have been developed from the principles of alliancing and these have been integrated into PFI/PPP processes. The specific risk allocation along with a specific process confirms ongoing governance integrity in alliances.

Typically in alliance contracts gain share regimes involve objective (e.g. time, cost and production measurements or enhanced revenues) and subjective performance objectives (e.g. stakeholder advocacy, end user satisfaction, team member job satisfaction). These key features of alliance contracts are orchestrated by a process involving workshops to develop the target price rather than that of a hard bid of PFI/PPP project (Fig. 1). Hence, a hybrid model will require a process different to either that of tra-

ditional PFI/PPP project or alliance projects to function successfully.

Fig. 3 outlines a governance structure utilising an alliance methodology to assist with the commercial negotiation during scope changes from the government, which are an inevitable occurrence in large-scale infrastructure projects. Changes during construction or service delivery are managed via the gain and pain share mechanism as per typical Alliance contracts. A process of governance audits has been introduced to ensure all project objectives is met. Some of these audits would be pre-planned and others would be triggered by significant changes.

7. Conclusions

This paper has identified areas where enhanced value and improved long-term service outcomes may be achieved by the introduction of alliancing concepts into PFI/PPP projects. Proposed governance structures provide greater project flexibility and offer the potential to improve societal interests and to avoid some of the weaknesses inherent in the PSC.

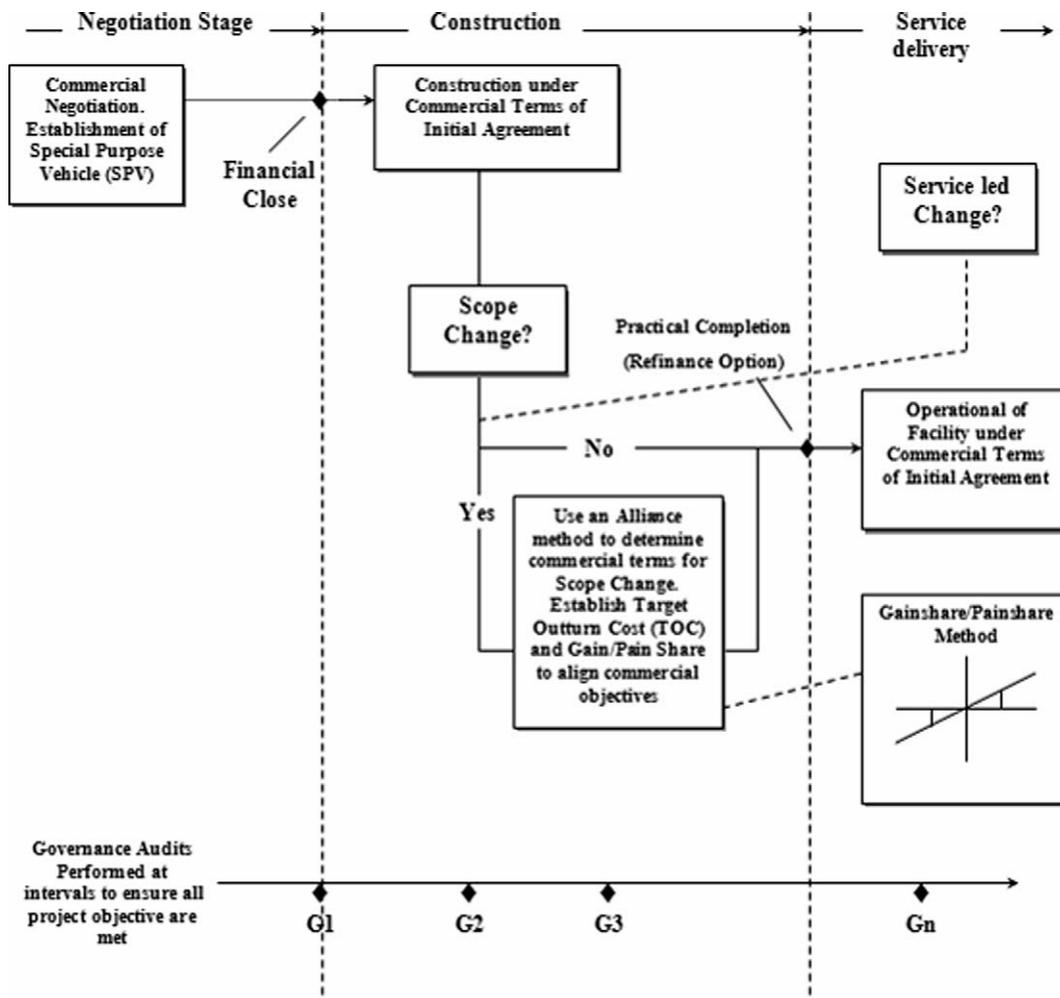


Fig. 3. Proposed Alliance PFI/PPP change management process.

A hypothesis was formulated that *utilising Alliance contracting techniques, can result in improved long-term service outcomes through enhanced governance structures and hence, greater value for money.* It has been demonstrated that improved value for money in PFI/PPP projects is possible through the application of alliancing principles. The argument has been put that the flexible structure for management of change via alliancing provides a mechanism for managing long-term outcomes whilst maintaining the original commercial intent.

This theory has been tested for industry acceptance and potential limitations through a series of surveys and case studies. It was established that the finance market is currently unwilling to accept the risk profile of a full alliance

regime. The procurers and service providers did however express interest in exploring the utilisation of alliance techniques in PFI/PPP projects.

A hybrid alliance, PFI/PPP structure was developed along with details of its proposed risk profile, change management process and governance control mechanism. Ongoing research is currently being undertaken to validate and refine the proposed hybrid structure.

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Appendix 1. Comparison of “value for money” policies

New South Wales	Victoria	UK	Ireland
<i>Source.</i> Working with Government Guidelines for Privately Financed Projects (PFP)	<i>Source.</i> Partnerships Victoria (PV) – Risk Allocation and Contractual Issues	<i>Source.</i> Public Private Partnerships (PPP) – The Government approach	<i>Source.</i> Working Together in Financing Our Future – Policy Framework for PPPs in Northern Ireland
<i>Value for money</i>	<i>The value for money question</i>	<i>The objectives of PPPs</i>	<i>Objectives</i>
All PFPs are to be the subject of a comprehensive economic appraisal	<i>Partnerships Victoria</i> requires a full cost–benefit analysis of a proposed project before government determines whether the project should be undertaken	Central to the Government’s approach is to use PPPs where they provide better value compared to public sector investment	The key objectives to be realised through the use of public private partnerships are summarised in the paragraphs that follow:
The major value-for-money drivers are:	Value for money is maximised by allocating risk optimally	Under PPPs, the public sector specifies the outputs required from the investment, but the responsibility for, and many risks associated with, delivering those outputs is transferred to the private sector partner	– cost effective delivery – good quality services – clear customer focus – enhanced service diversity – enhanced incentive – better asset utilisation – more project delivery – wider economic benefits
– improved risk management – ownership and whole-of-life costing – innovation – asset utilisation – whole-of-government approach	– risk transfer – whole-of-life costing – innovation – asset utilisation	This can offer better services, delivered more efficiently and providing better value for money for the taxpayer than public sector investment, provided the outputs can be clearly specified from the outset and that both parties fully understand the risks they are taking on	

Appendix 2. Comparison of risk allocation structures in transport PFI/PPP projects

Risks	Mitcham Frankston (2004)	Westlink M7 (2003)	Cross City Tunnel (2002)	Spencer Street Station Redevelopment (2001)
Responsible Government	Victoria	NSW	NSW	Victoria
Concession period (from contract execution)	39 years	34 years	33 years	30 years
Policy	Partnerships Victoria (PV)	<i>Working with Government Guidelines for Privately Financed Projects (PFP)</i>	<i>Working with Government Guidelines for Privately Financed Projects (PFP)</i>	Partnerships Victoria (PV)
Design, construction and commissioning risks	The concession company takes all design, construction and commissioning risks for the project	The concession company takes all design, construction and commissioning risks for the project	The concession company takes all design, construction and commissioning risks for the project	The concession company takes all design, construction and commissioning risks for the project
Delay and completion risks	The concession company is obliged to use its best endeavours to achieve the completion dates	The concession company is obliged to use its best endeavours to achieve the completion dates	The concession company is obliged to use its best endeavours to achieve the completion dates	The concession company is obliged to achieve completion of specified milestones by specified milestone dates
Ground/geotechnical conditions risks	The concession company takes the risk of all physical conditions of the land and its surroundings	The concession company takes the risk of all physical conditions of the land and its surroundings	The concession company takes the risk of all physical conditions of the land and its surroundings. In the case of hazardous contamination, those risks are limited to the disturbance of contaminants caused by the concession company, and the concession company is obliged to remove that contamination at its own costs	The concession company takes the risk of any pre-existing contamination which was known to the concession company and could reasonably be anticipated by an experienced contractor having regard to information provided by the government, and any contamination due to leaching, deterioration or alteration to the above category of pre-existing contamination
Native title risks	The government entity will compensate the concession company for any costs incurred by it in complying with all reasonable directions from the government entity, or court or compliance with any other legal requirement arising from a native title claim	The government entity will compensate the concession company for any costs incurred by it in complying with all reasonable directions from the government entity, or court or compliance with any other legal requirement arising from a native title claim	The government entity will compensate the concession company for any costs incurred by it in complying with all reasonable directions from the government entity, or court or compliance with any other legal requirement arising from a native title claim	The government entity will compensate the concession company for any costs associated with a delay or acceleration of the works due to a native title claim

(continued on next page)

Appendix 2 (continued)

Risks	Mitcham Frankston (2004)	Westlink M7 (2003)	Cross City Tunnel (2002)	Spencer Street Station Redevelopment (2001)
Operation and maintenance/facility management	The concession company is obliged (amongst other requirements) to operate and maintain the infrastructure with “Operation and Maintenance Best Practices”. The concession company is obliged to provide security of \$5 million during the operation phase (which may be increased to \$20 million if a non-compliance notified to the concession company has not been fixed)	The concession company is obliged (amongst other requirements) to operate and maintain the infrastructure with “Operation and Maintenance Best Practices”. If the concession company fails to comply with its operation and maintenance obligations and fails to rectify that non-conformance within 12 months, the government entity may require the concession company to provide security (bank guarantee of \$20 million) which will be held until the end of the concession period	The concession company is obliged (amongst other requirements) to operate and maintain the infrastructure with “Operation and Maintenance Best Practices”	The concession company is obliged (amongst other requirements) to operate and maintain the infrastructure facility in a manner consistent with the project objectives (which includes obtaining a world class intermodal transport interchange facility)
Force majeure	The concession company’s obligations are suspended during a force majeure event. A force majeure event has been defined to include a specific list of events during construction, and extended to include other material risk not specifically allocated. If an uninsurable force majeure risk occurs, this may trigger a renegotiation process	The concession company’s obligations are suspended during a force majeure event. A force majeure event has been defined to include a specific list of events during construction, and extended to include other material risk not specifically allocated	The concession company’s obligations are suspended during a force majeure event. A force majeure event has been defined to include a specific list of events during construction, and extended to include other material risk not specifically allocated	The concession company’s obligations are suspended during a force majeure event but the government entity can reduce the service payments to the concession company to reflect the reduced operating costs. There was a very limited (4 types) list of events classified as a force majeure event
Uninsurable risks	The concession company is relieved from its obligations to effect the prescribed insurances to the extent that, and only of so long as, it becomes unavailable (including from the government) in respect of similar projects	An uninsurable force majeure event will be considered as a material adverse event and trigger renegotiations between the parties	If there is an uninsurable event, the concession company’s obligations to reinstate the project are suspended until the parties have reached agreement under the renegotiation provisions, or failing that, a final and binding determination by an independent expert, arbitrator or court	The concession company can seek an adjustment to the service payments if the cost of obtaining certain mandated insurances varies by more than 30% for a quarter (from the previous quarter), and if the concession company can demonstrate that certain mandated insurances cannot be obtained on commercially reasonable terms in the commercial insurance market, the parties must seek to agree on changes to the requirements for those insurances

Material adverse effect (MAE) events	The key risk events which trigger negotiation between the parties include breaches by the government entity, discriminatory changes in law, uninsurable force majeure events, change in government policies dealing with enforcement of toll evaders, and certain environmental related issues	The MAE events which trigger renegotiation between the parties include changes to the original planning approval for the project, changes to certain traffic assumptions	The MAE events which trigger renegotiation between the parties include changes to the original planning approval for the project, changes to certain traffic assumptions	The concession agreement does not incorporate a renegotiation clause in the event of certain material events
Legislative and Government Policy	Changes in law will be considered as key risk events entitling the concession company to commence renegotiation in certain circumstances	The concession company does not take the risk for discriminatory changes in state law, or new state or commonwealth taxes. Those exceptions will be considered as MAE events	The concession company does not take the risk for discriminatory changes in state law, or new state or commonwealth taxes. Those exceptions will be considered as MAE events	The concession company bears the risk of all changes in law at a Commonwealth and state level up to \$50,000 per year and the government entity bears the risk of any amount in excess of that. The concession company does not take the risk for discriminatory changes in state law which are directly and specifically directed at the project
Termination	The government entity has the right to terminate the concession agreement in certain events – they include a failure by the concession company to rectify certain events of default following a cure period (including delay by the concession company in achieving the completion of the freeway, cancellation of funding, insolvency and change in control related events, etc.), and a failure to open the freeway to traffic after completion. The government entity does not have a right to terminate the concession agreement for its own convenience	The government entity has the right to terminate the concession agreement in certain events – they are delays arising from native title or a failure by the concession company to rectify a default following a cure period. The government entity does not have a right to terminate the concession agreement for its own convenience	The government entity has the right to terminate the concession agreement in certain events – they are delays arising from native title or a failure by the concession company to rectify a default following a cure period. The government entity does not have a right to terminate the concession agreement for its own convenience	The government entity has the right to terminate the concession agreement in certain events – they are a failure by the concession company to rectify a default (which includes a failure by the concession company to achieve a high service category KPI) following a cure period, insolvency, continued force majeure event, and abandonment by the concession company

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