

Towards a New Public Private Partnership Model

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A case for change

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I. Introduction

The traditional Public Private Partnership model (PPP) for procuring infrastructure has served Australia reasonably well over the last twenty years or so. Many high priority infrastructure projects have been delivered ahead of time and scarce government funds have been freed-up to deliver other high priority programs. Successful PPP examples include: Melbourne's City Link motorway system, Sydney's orbital motorway network comprising a series of PPP projects with different service providers, Sydney Water's water filtration plants, the NSW Government's schools program, and various other social infrastructure projects.

As the model evolved, particularly for economic infrastructure, the risk profile for projects has been articulated with greater precision, together with a consequential increase in the risk allocated to the private sector when compared to earlier projects. For some projects, this has resulted in public private conflicts between government and the private sector rather than workable partnerships. Examples include: Spencer Street Railway Station in Melbourne and the Cross City Tunnel (CCT) in Sydney. Moreover, many of the more recent motorway tollway projects in Sydney, Melbourne and possibly the motorways currently under construction in Brisbane, have been characterised by optimism bias in forecasting patronage levels and have resulted in the loss of shareholders' equity and a revaluing down of the assets for two projects to date, namely the CCT and the Lane Cove Tunnel (LCT), both in Sydney.

Potential investors are becoming more selective in their choice of projects to bid, with one recent PPP (Northern Link) having only one consortium that registered interest. In particular, the Global Financial Crisis (GFC) is leading to a reduction in growth across all markets accompanied by a tightening of the availability of credit, with investors looking for more secure and not necessarily high rates of return.

The Australian economy currently needs an injection of liquidity to minimize the impacts and likelihood of a severe worldwide recession. The Australian Government has responded to

this need through fiscal policy stimuli packages involving, amongst other initiatives, "gifts" to pensioners, state and local government and others, and an infrastructure program recommended by Infrastructure Australia.

In a recent essay written by Mike Hanley¹, he says:

"We need a more evolved form of finance than one carried by sentiment and rampant self-interest." as well as

"Accept that the financial markets will be utterly transformed, that trust between counterparties needs to be rebuilt using new and yet-to-be invented structures and that the way we do business in the future will be different to that of the past."

In addition, the print media is starting to recognise problems associated with the current PPP model, in light of the Global Financial Crises and is calling for the development of a new model. For example, Adele Ferguson reported in the Australian (January 6th, 2009) that

"as the debt markets worsen and most listed infrastructure funds have fallen apart, a new model is needed to help finance the estimated \$800 billion the country needs to spend on infrastructure in the next decade".

These comments are very pertinent when considered in the context of the current PPP market in Australia, which has recently seen:

- the loss of equity in some high profile projects;
- the failure of revenue streams to meet debt servicing requirements;
- considerable write down in the share price or market capitalisation of some more recent economic infrastructure project companies; and

¹Extract from essay in AFT Boss magazine Dec/Jan 2009

- lack of readily available funds from the private sector for infrastructure building and hence some "recession proofing" of the economy.

This is in a climate where vast amounts of funds sit in superannuation accounts and sovereign wealth funds are looking for long term secure investments, but are generally unwilling to invest in PPPs.

The Federal Government is committing approximately \$20B through its infrastructure fund and it will be vital to get significant leverage from this initial investment by attracting private sector funds to participate alongside the Government allocation in order that the \$20B as a "seed fund" gets amplified by a factor of 3-4, so that it will be able to deliver \$60-80B worth of infrastructure.

This paper argues that in order to unlock private sector funds for infrastructure investment, particularly economic infrastructure such as road and rail projects, where a large amount of capital is required, a new model or paradigm is required for PPPs. It is argued that a true partnership is needed between the parties where risk is shared rather than allocated to specific parties. Four approaches including the risk sharing approach are suggested for consideration:

1. unbundling the various components into a partnership between a long term owner / operator and Government who between them arrange project finance, with separate arrangements to procure a constructor;
2. a government owned model whereby the Government operates the asset, borrows to finance the asset, and outsources the construction to the private sector;
3. a risk sharing rather than risk allocation model for infrastructure procurement, whereby features of alliance contracting are applied to a new PPP paradigm; and
4. the establishment of an Infrastructure Bank to channel funds including superannuation savings for infrastructure investment.

The purpose of this paper is to stimulate debate and discussion on this important topic and to assist in the development of a new approach for the procurement of economic infrastructure.

2. Characteristics of the traditional PPP model

The traditional PPP model for the delivery of economic infrastructure has evolved over time as it has been applied to various industries, including transport and water, and as governments have become more informed about the delivery method. The basis of the model is that Government provides a long term concession to a private sector consortium to finance, operate and maintain a service traditionally provided by the public sector. The proponents of successful PPPs are buying the right to operate a business over the long term on behalf of Government delivering a service to the public. At the end of the concession period, the PPP asset reverts back to the Government sector. Projects that particularly lend themselves to this procurement and delivery method are where the private benefits can be clearly identified and the user pays principle applies. Toll roads are a classic example. The model was first applied in Australia to water filtration plants and toll roads in the late 1980s. For the next twenty years, the model was applied with varying degrees of sophistication with the following features and modifications:

Risk allocation

- The identification of risk and its transfer from public to private sector has developed over time with greater precision together with a consequential increase in the risk allocation to the private sector.
- For most PPP projects the private sector retains all financial, construction and operational risks with the public sector retaining the political risk. For toll road PPP's patronage risk is generally retained by the private sector. The Sydney Harbour Tunnel (one of the early PPPs) is the only toll road PPP in Australia where the government took the patronage risk.
- This risk allocation can result in conflict or a master servant relationship rather than partnership. For example, if 'ramp-up' in

patronage levels during the early stages is below forecast, and/or government disengages from the project, and/or poor issue stakeholder management by private sector proponent or government occurs, conflicts are likely to develop between the parties.

Contract changes

- The concession period and price escalation are generally fixed at contract closure – with a 30 years plus concession period, referred to as 'set and forget' whereby these arrangements are generally locked in for the length of the concession period, unless renegotiated. It is acknowledged that some PPPs, such as the CityLink Concession in Victoria have been able to successfully negotiate many changes
- Further improvements and upgrades over time to service provision outside the contract are subject to negotiations between Government and the proponent. Negotiations over changes to the contract take place in a non contestable environment, with often a 'win lose' approach.
- Changes to the concession deed are generally administered through a material adverse effects (MAE) regime, which is inflexible and inappropriate with many PPPs requiring changes either immediately prior to coming into operation or shortly thereafter. For example, CCT with its traffic calming issues and amendments to traffic arrangements in William Street, Sydney. It is acknowledged that the MAE regime is not the only mechanism for dealing with resolution of a certain type of change in some PPP transactions.
- Upgrades to infrastructure or service provision are generally funded by the concessionaire through extension to the concession period and/or changes to the pricing regime, which can be difficult to value and negotiate.

- Projects can require considerable urban amenity and public good improvements which are often funded by the concessionaire and ultimately by the users of the infrastructure through price escalation (e.g. Eastern Distributor Motorway and CCT in Sydney).

Financial issues

- It is currently too early to demonstrate effectiveness of super normal profit sharing arrangements with the public sector, although some recent projects have a more measurable formula.
- Many recent toll road PPPs have experienced unachievable forecasting of revenue and a 'ramp up period' longer than planned, resulting in equity value loss. Consortiums of investment banks and contractors have used inflated revenue estimates on toll road projects to enhance their bids, and then have shifted the revenue risk to uninformed equity through IPOs.

Evolution of the PPP model

- Projects have become more complex and bigger in scale (for example, the proposed M4 East extension in Sydney is reported to cost approximately \$12B to construct), with the environmental approval process more extensive and with a growing number of conditions of approval. Consequently, bid cost have escalated and have cost up to \$40M per bidder for large scale projects. The complexity and risk allocation associated with the delivery of PPPs in Australia provides a barrier to entry for overseas firms attempting to enter the market.
- PPPs are essentially about service provision, yet the proponent's track record in service provision plays a minor role in the assessment of bids by government.

3. Changing economic times

The Global Financial Crisis (GFC) has resulted in a tightening in liquidity markets and a more risk averse or cautious investment environment. In this climate, financial institutions are more likely to require more equity as a proportion of funds invested, and less debt than previously required. However, in today's economic climate, equity is scarce and looking for low risk returns. Some recent toll road PPP projects have re-valued down the asset value and downgraded the value of equity. In some cases, equity has been written off and the assets sold (e.g. Sydney's CCT). This has resulted in a more cautious approach to investment in PPPs, particularly by equity, with some PPPs attracting little market interest. For example, the Northern Link Motorway in Brisbane has one remaining proponent in the EOI stage and is unlikely to proceed. In the current economic climate, the private sector is indicating that they are not prepared to play by the traditional PPP rules.

The effect of equity having been lost or written off on numerous recent PPP toll road projects is not only impacting on the raising of equity for new projects, but also causing a reluctance of debt providers to support these projects. In short, the poor financial performance of recent PPP toll road projects together with the effect of the GFC is causing a lack of equity and debt for future economic PPP projects.

Australia, however, is still faced with an infrastructure back log across all the obvious sectors, as it replaces aging assets and caters for growth and population increases. Infrastructure Australia was created to assist in the management of the Australian Government's \$20B Building Australia Fund (BAF). It is understood that bids from State and Territory jurisdictions vastly exceed funds available with over 600 proposals received valued at over \$230B. This list was reduced to 94 proposals with a total value of nearly \$200B, subject to further prioritisation.

(Australian Government, Infrastructure Australia: A Report to the Council of Australian Governments, December 2008)

The country's infrastructure needs cannot be satisfied by Government alone, without greater private sector involvement. Without private equity, PPPs cannot happen. However, in the current financial environment, more innovative ways are required to attract private sector equity to invest in economic infrastructure.

Superannuation funds are often mentioned as a source of funds for infrastructure, as they require a long term, stable income. However, the traditional PPP tender model encourages bidders to shift risk to equity and therefore, has not provided a vehicle to attract sufficient superannuation funds into the infrastructure market. Without a significant change to the PPP model, superannuation funds will continue to sit outside the infrastructure markets. It is recognised that a reasonable proportion of some superannuation funds have invested in PPPs, however, the potential for a considerable increase in this proportion still exists.

To provide some stability to the financial institutions, governments have been underwriting bank deposits to predetermined levels as well as providing funds to buy into private sector companies to support them in the current financial crisis.

It would appear that this sort of support being provided to the private sector by government would be no different from government also providing a 'floor' or a level of underwriting to large economic infrastructure projects delivered as PPPs.

4. The case for change

A new approach to PPPs needs to be developed in order to overcome the current liquidity crises, the more risk averse nature of today's financial market, and the short comings outlined above of the traditional PPP approach to procuring economic infrastructure.

Typically investment banks, supported by construction contractors, are by and large in the driving seat when the private sector is responding to 'Request for Proposals' for PPPs. In most cases investment banks and contractors have a short term focus and are more interested in 'doing the deal' than being a long term investor and / or partner with the public sector. Moreover, they are often ill equipped to be long term operators of the assets. PPP contracts are generally prepared with a focus on today's issues and can be generally inflexible in their ability to respond appropriately to change over the long term concession period. Changes to the contract sometimes require a negotiated event which can be time consuming and often viewed in a win lose environment, rather than a partnership with government.

The most appropriate party to respond to a PPP opportunity is a business that has a track record as a long term service provider. Economic infrastructure such as toll roads and airports are long term infrastructure assets which require a long term approach. The current PPP model does not encourage long term behaviour regarding the management of the asset and the service to the public.

Also the trend to bundle up into one contract the roles of operator, financier and constructor in a single bid can result in government accepting a sub- optimum outcome for some of these components of the bid. In addressing the various flaws in the PPP model lay the answers to the development of a new approach. Below options are discussed to provide a framework for a new approach. A key consideration to select the best approach is the incentives that encourage the desired behaviour from participants. The current PPP paradigm encourages short term thinking by the private sector and can cause conflict between the parties rather than partnership.

There is a good argument that future PPP arrangements should be encouraging a long term view of all aspects of the PPP transaction, from equity provision through to the services, standards and costs of operation, and within a true partnership arrangement where all parties to the transaction have a set of common objectives rather than diverse individual goals.

As previously stated in this paper, alternative approaches to PPPs are suggested, these being:

1. unbundling the various components into a partnership between a long term operator and government;
2. a government owned model whereby the government operates the asset, borrows to finance the asset and outsources the construction to the private sector;
3. a risk sharing approach for infrastructure procurement whereby features of alliance contracting are applied to a new PPP paradigm; and
4. the establishment of an Infrastructure Bank to channel funds including superannuation savings to infrastructure investment.

4.1 Unbundled PPP Model

Governments seek bids for PPPs from consortia, which in the past have generally been led by financial institutions, for a total package consisting of financing, construction, and maintenance and operations or service provision. Under the traditional PPP model governments are not in a position to 'cherry pick' the best aspects of different bids, such as the most efficient financial package and the most innovative or low cost engineering solution. An innovative engineering solution from bidder "A" could be rejected because a financial package from bidder "B" offers a lower cost solution overall for government. An alternative approach would be for government to select a service deliver or operator based on past performance as a first step in the procurement process and partner with the

service provider over the length of the concession period. Incentives could be provided to the service provider to stay for the long haul. Separate bids could be sought by government and/or the service provider through a competitive process for financing, construction and maintenance of the asset or service. In this arrangement the best components for the total project could be selected.

While this approach may provide a better outcome for government and a lower cost, it does not address the shortage of equity funds associated with the current financial crises and the risk averse nature of the financial markets for economic PPPs. This approach may be a suitable model in a growing market and where financial markets are prepared to accept the patronage risk and other risks transferred from government. In addition, it will not address many of the weaknesses identified above in the current PPP model, particularly the behaviour of transferring as much risk as possible to the private sector and onto equity. This model is unlikely to be supported by the investment banking community who generally want to retain control over all aspects of the bid and will continue to favour the financier led model.

4.2 Government owned corporation

If the private sector is reluctant to invest in economic PPP assets and services in the current economic climate and risk allocation model, would a government funded approach with unbundled components provide a better solution?

The rate of return on Government bonds is at a relatively low level in the current economic climate. This suggests that when private proposals are compared with a “Public Sector Comparator”, the analysis may favour public provision of the infrastructure, rather than private provision. Under this model governments would fund the assets using government debt with possibly some government equity and seek separate competitive bids for construction and maintenance as outlined above. A government statutory authority could be created and made responsible for operating the asset, similar to the RTA operating the Sydney Harbour Bridge or

Queensland Motorways operating the Gateway Bridge and the Logan Motorway in Brisbane. A variation of this approach is for government to seek a private sector operator or service provider with measurable performance criteria embedded in the contract to reward good performance and customer service.

However, governments will be limited in the amount of debt that they can raise and the amount of equity they can contribute without affecting their credit rating and reallocating resources from the provision of other government services. Moreover, where governments control asset and service provision, political rather than commercial principles may dominate how the asset is managed. For example, tolls may be set to satisfy political imperatives rather than economic or financial objectives. As a consequence, the projected rates of return will not be achieved. Under this arrangement governments take on some of the risks taken by the private sector in the traditional PPP model, such as patronage risk. Government Treasury Departments are generally not supportive of governments taking on the risk associated with these projects and government ministers are generally reluctant to establish new statutory authorities where they lack direct control over the entity.

4.3 Risk Sharing Partnerships

As indicated previously in this document a suggested shift to a risk sharing rather than risk allocation model is proposed, drawing on some of the positive attributes of Alliance Contracting. Alliancing is now a force in traditionally funded projects in Australia where the parties to the alliance, i.e. the owner, contractor, designers, and operators share risk rather than allocate it.

Asset owners are already involved in and are familiar with the alliance approach for many billion dollars worth of infrastructure in Australia. A research paper by RMIT² indicated that of the 30 Alliances studied they had a good track record of delivery with most projects being constructed under budget (see figure 1) and delivered ahead of time (see figure 2).

²RMIT Research paper commissioned by Alliancing Association of Australasia (AAA) in 2008

- Notwithstanding the success of Alliancing as outlined in the RMIT research paper there is still some scepticism in regards to Alliancing, in particular: The target price and commercial terms being too “soft” or easy to achieve. This criticism can mostly be addressed by setting commercial terms in a competitive context. When doing this care needs to be taken to optimise the use of resources and minimise waste and duplication of effort.
- The Target price is greater than the client’s budget price – often this is caused by the Client having a budget which is based on a different scope and conditions to that of the final project. Evans & Peck has observed more recently that Government departments are putting considerable effort into developing their project budgets and this issue is likely to be less significant in the future.

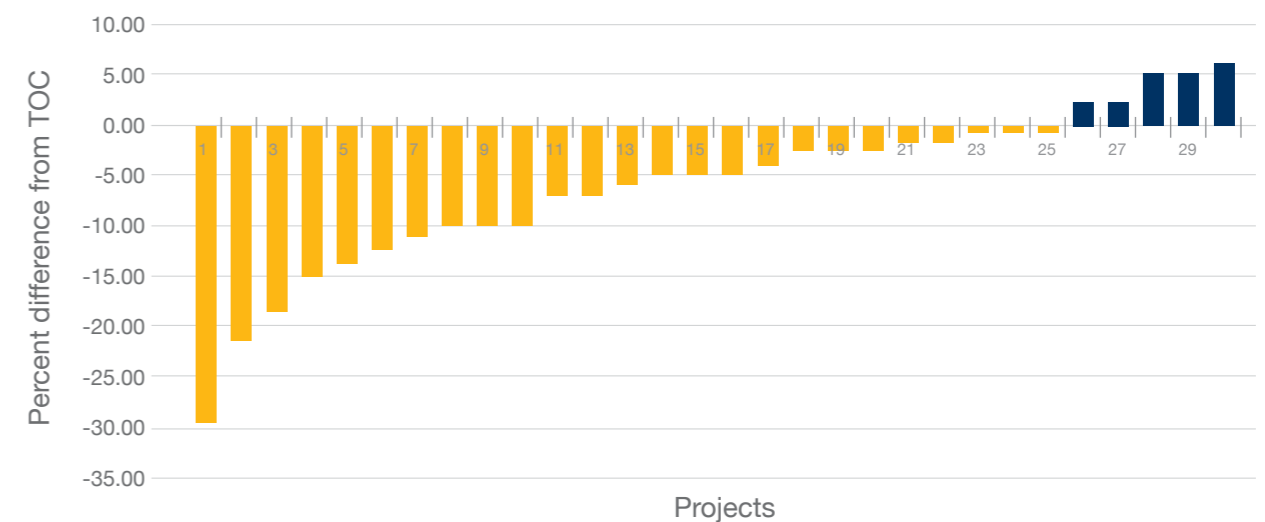


Figure 1: Alliance Cost Performance – projects generally delivered under budget

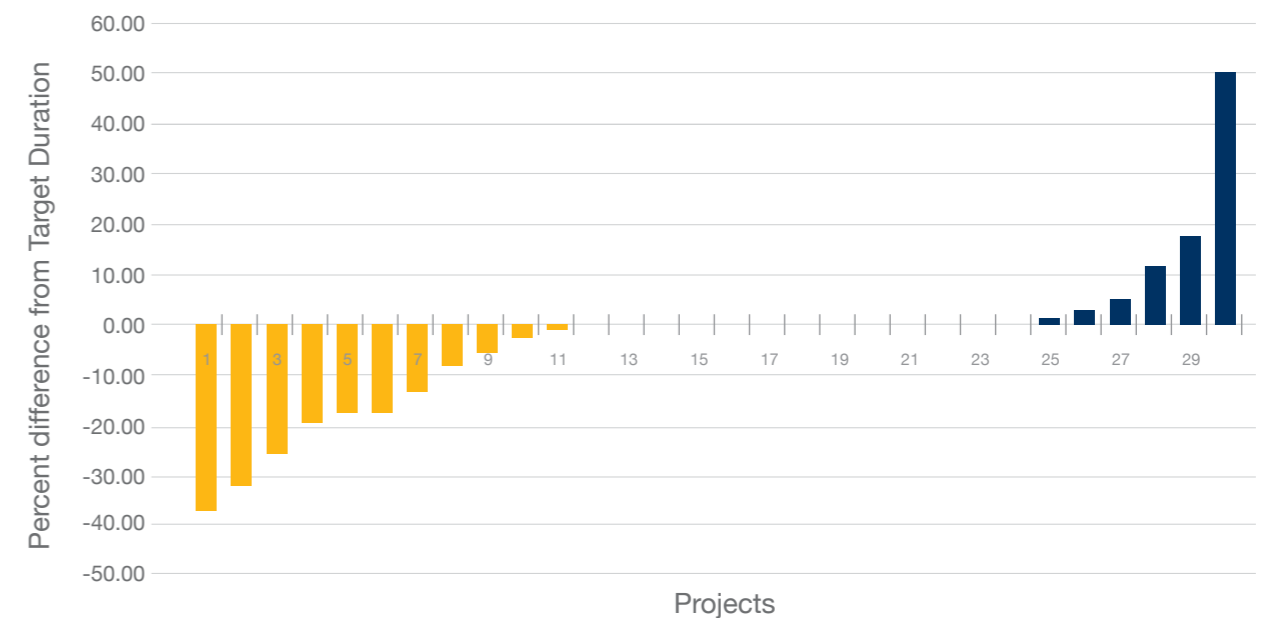


Figure 2: Alliance Time Performance – projects generally delivered ahead of time

With an Alliance Contract the following principles generally apply:

- All the parties in the Alliance agree on a set of common objectives;
- Dealings are totally transparent to all the parties;
- The Alliance is governed by the equivalent of a Board with representatives from all the parties in the alliance and whose decision making is unanimous;
- All parties to the contract decide on what they will put at risk;
- All parties contribute to the amount put at risk on a progressive basis such that they all reach their maximum contribution at the same time; and
- In a similar fashion to the above the sharing of upside to predetermined levels is reached progressively for all parties such that there is an equitable sharing of benefit.

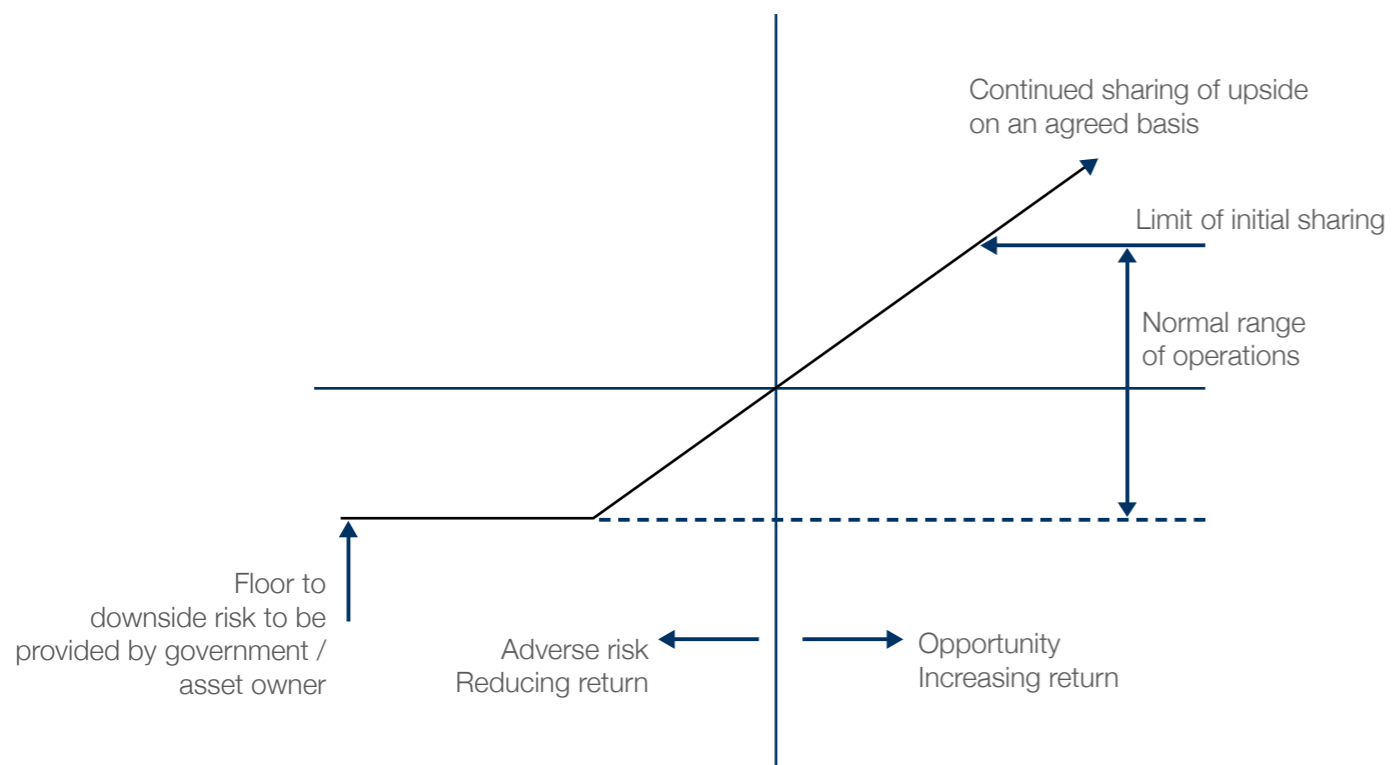


Figure 3: Alliance risk sharing model

This Alliance approach has not been applied to the procurement of government economic assets and services where the private sector is involved in the financing and service delivery. Alliances have traditionally been used for government (asset owner) funded design and construction contracts, or design, construct and maintain contracts where the risk profile has been difficult to quantify.

As with all significant 'inventions' it normally takes some historical event to be the catalyst for change. The Global Financial Crisis and the weakness to the traditional PPP model to address the current financial environment is the catalyst for change to the PPP model.

4.4 Infrastructure Bank

As previously stated, investors have suffered losses in some of their more recent infrastructure investments and they have become more risk adverse due to the current financial crisis.

A further option for consideration is for government to set up an Infrastructure Bank (IB) with the \$20 billion Building Australia fund, used as seed money for this bank.

Figure 4 demonstrates how superannuation savings and the availability of infrastructure investment opportunities are linked by the IB. In this way the super funds invest in the IB rather than directly invest in projects.

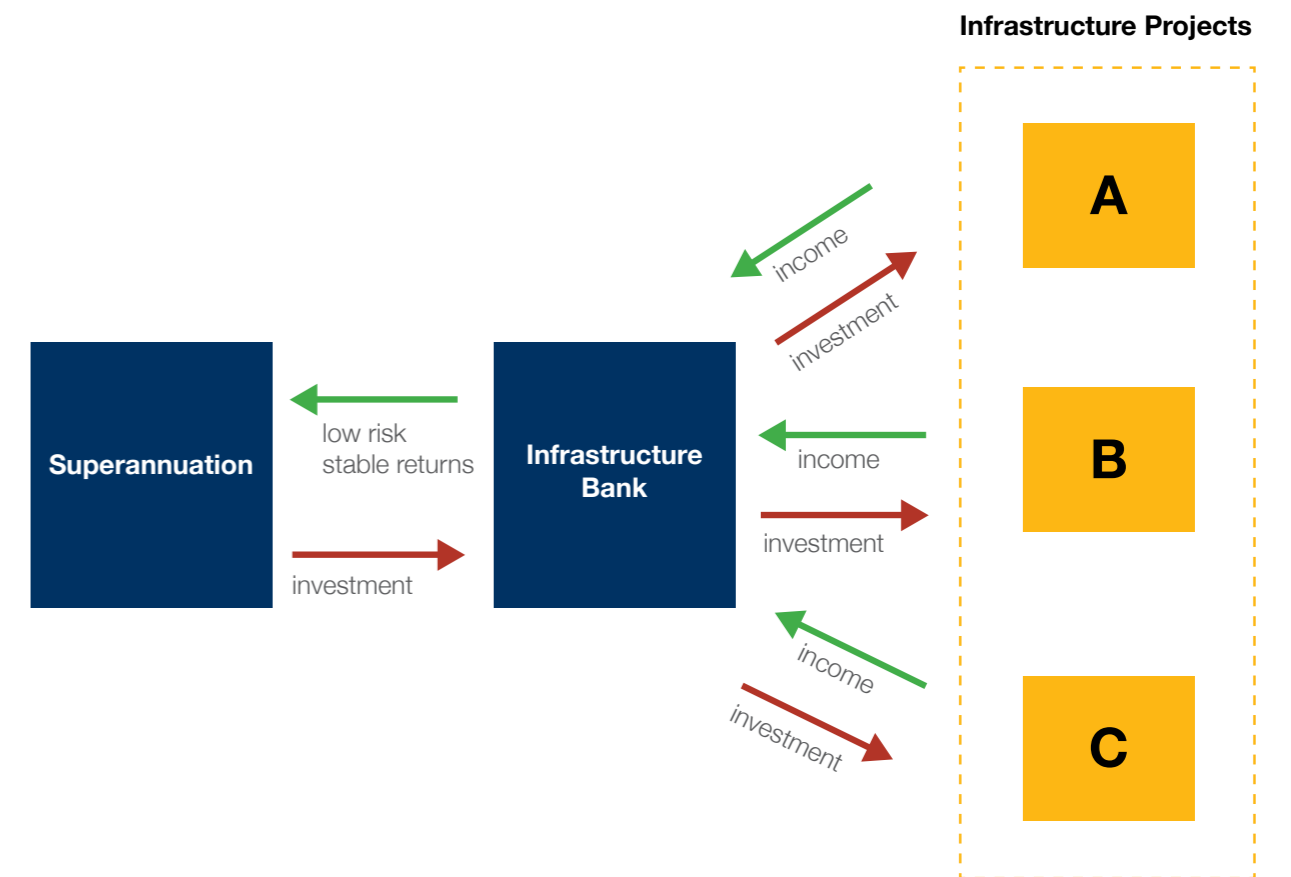


Figure 4: Infrastructure Bank channelling superannuation savings to infrastructure projects

The confidence of investors in funds previously used for this purpose by Investment Banks has been eroded. Provided that the government is prepared to provide some underwriting of a minimum standard of investment performance by the IB it could fill the gap of infrastructure funds. Investment in the IB could be attractive to super funds because it offers them two levels of protection. The first level is that IB will hold a portfolio of economic and social infrastructure projects so the return is less volatile than a single project or a few projects. The second level is the guarantee suggested to be provided by government, to a minimum level of investment performance. The net investment return would be relatively stable and the perceived investment risk low. The IB would also need to have a stringent mandate to ensure the integrity of its investment in order to maintain the confidence in the long term.

With the low risk of investment in the IB, it should have the lowest cost of capital in infrastructure investment and in turn can offer an attractive financing package. While it may be beneficial, at the moment, to have a publicly owned institution involved as an Infrastructure Bank, it is important that it should not limit other investment arrangements from other sources. It is important that market forces ultimately act as a check and balance, and provide necessary competition to ensure long term sustainability in the future.

5. PPP – the next generation – a risk sharing approach

The risk sharing partnership model is a new approach and is therefore covered here in more detail.

The concept in the next generation PPPs is simply to introduce the providers of debt and equity funds, into a risk sharing arrangement similar to that used in the type of alliance arrangement described for traditionally delivered infrastructure as indicated above. That is, the financiers will need to become a partner with government for the long term, as well as the Design, Construction and Service Delivery partners. As with current Alliances, the risks would be shared, rather

than allocated and the contract managed as an open book arrangement, where all parties to the alliance have access to cost revenue and contractual performance information.

For infrastructure projects that are fully funded by Government, a range of delivery methods are currently used which best meet the circumstances of each project. It is suggested that the risk sharing partnership approach is similarly one of a number of delivery methods which could be used for infrastructure projects being delivered wholly or partly with private sector funding. The table below provides a simplified version of the application of a range of delivery methodology for both public and privately funded infrastructure projects.

Type of project	Traditionally Publicly Funded	PPP (Privately funded)
Fairly straight forward with little urgency and low likelihood of material changes	Design then Construct	Current model and risks with private sector with availability charges for infrastructure
Potential for innovation in design and urgent implementation. Low likelihood of future changes.	Design and Construct with excluded risks if appropriate	Current model with Special Purpose Vehicle (SPV) model and most risk allocation to SPV
Require flexibility and urgency to get to market, likely changes overtime to services delivery and scope etc.	Alliance type delivery	Next Generation PPP with risk sharing approach.

For the risk sharing partnership model, a typical diagrammatic representation of the risk allocation vs. risk sharing approach is provided below:

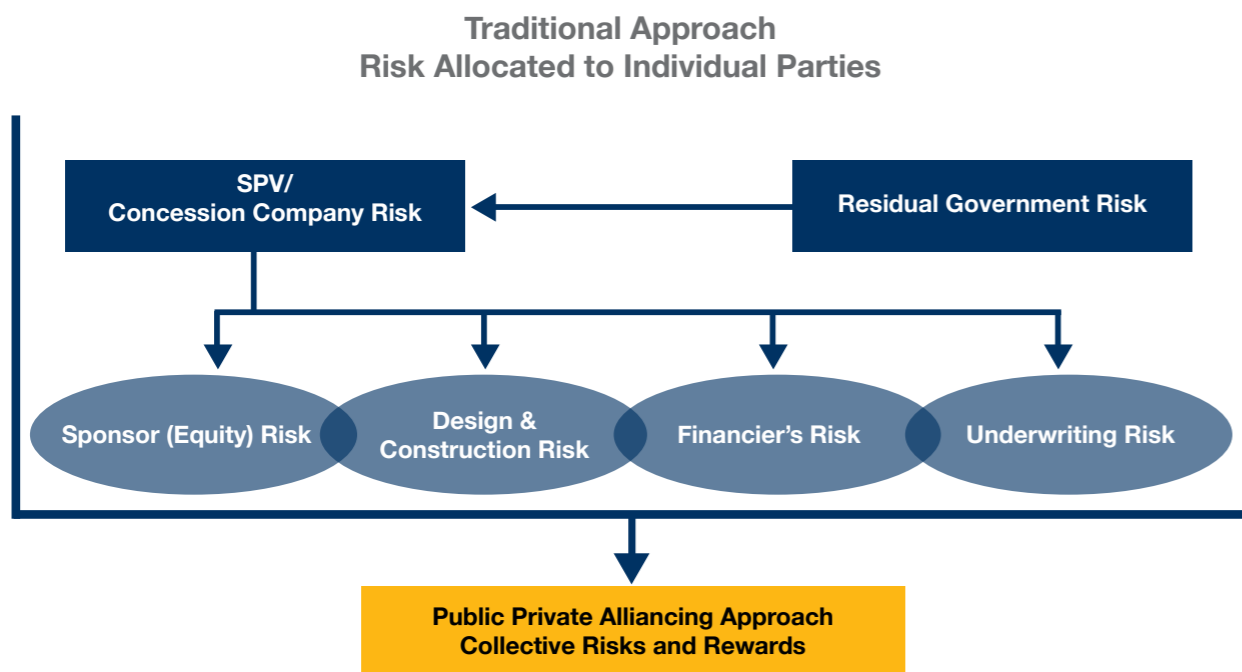


Figure 5: Risk Allocation vs Risk Sharing Approach

Most of the large design and construction companies in Australia have experience with alliance constructions contracts and tend to favour them over the more traditional fixed price contract, however, most investment banks and financiers have little experience with lending or equity provision under an alliance arrangement. It will therefore be a considerable paradigm shift for the investment banks and financial institutions to align with the Alliance form of commercial arrangement. Incentives need to be embedded in the financing and operating contracts that reduce short term behaviour and reward the alliance parties taking a long term view. One way is to lock in equity for a reasonably lengthy period, say 5 to 10 years, with rewards for the achievement of agreed milestones.

As with Alliancing when applied to fully funded capital works, it is likely that a floor will have to be put to the amount of contribution to an adverse risk that all the partners including the funders should bear, that is, there will need to be some underwriting of the IRR and debt provided by the private sector, ultimately by the government as generally outlined in the diagram below.

This approach is consistent with Australian Government taking action in the Global Financial Crisis to support financial institutions.

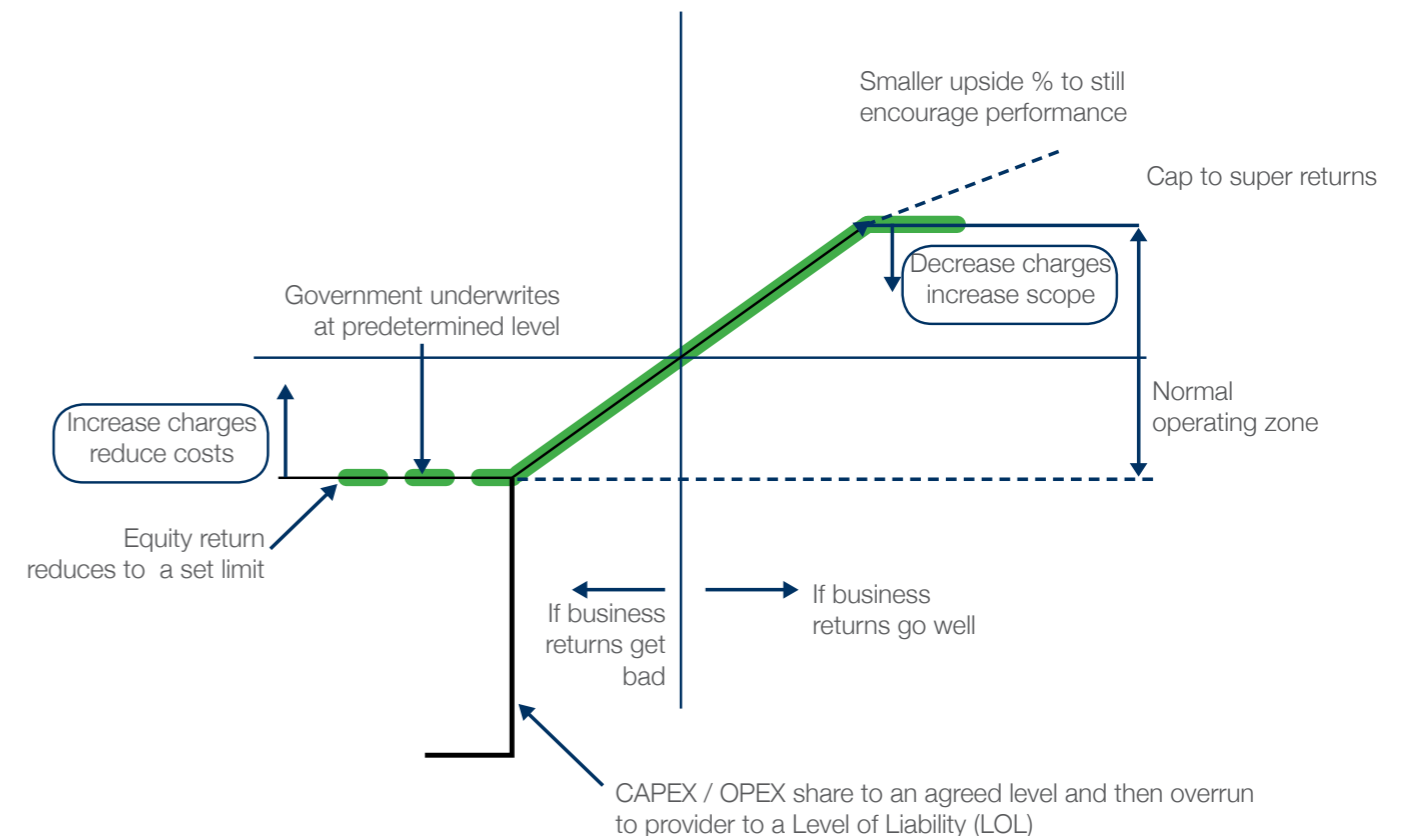


Figure 6: Financial risk sharing within a Risk Sharing Partnership Model

Figure 6 illustrates that when the project's internal rate of return falls below the agreed IRR, all parties to the alliance share in the risk until an agreed floor is reached. Alternatively, when the IRR exceeds the agreed rate all parties to the alliance share in the higher rates of return until a cap is reached, at which point, either all the super-normal profits return to government or a small incentive is provided to encourage superior performance by the operators.

The concept is about alignment of interest amongst all the parties, as opposed to risk allocation to the parties. As a consequence, co-operative behaviour is encouraged through a common set of objectives.

A key question is how to influence arrangements outlined above, so that they do not sit at the extremes?

Typical examples of the likely behaviour that could be expected would be similar to the points provided below:

- If the business returns decline to the lowest levels of the operating range, the parties acting in partnership can cause revenue to increase by increasing user charges as well as reducing the cost inputs. In this way business returns could be encouraged back into the normal operating zone.
- If the business returns increase to the highest levels of the operating range, the parties could in these circumstances reduce user charges and / or add scope to the project to improve the service to the community.

The management of inputs to ensure that a reasonable business return is achieved will be on a “best for partnership” basis, similar to the current Design & Construct Alliance contracts, which are on a “best for project” basis. This behaviour is generally achieved by the use of unanimous decision making by the Governance group leading the partnership. It would also be relevant to design a KPI regime, which could also be used to influence behaviour such that business returns are encouraged to sit within the normal operating range. Typical components of a KPI regime could be:

- Asset utilization;
- User satisfaction;
- User safety, etc.

This arrangement will change the whole concept of PPPs being in an “artificial environment” with a “two-dollar special purpose vehicle” created by the financiers in which all risk is then shed down to the equity providers. Moreover, if governments underwrite the IRR once an agreed ‘floor’ is reached, a strong incentive is provided for government to actively review and interrogate the patronage or revenue forecasts and the associated project risks. As a consequence, optimism bias in forecasting patronage is less likely to occur. Whereas under the traditional PPP model, patronage risk is allocated entirely to the private sector and government is not motivated to challenge the patronage forecasts. Under an alliance approach, patronage forecasts are likely to be more conservative, rather than inflated and not used as a technique to compete in the bid process.

The new generation PPP model can be applied to all aspects of the contract including financing, construction and operation. It encourages all the parties including the government and any other equity providers to work together to adjust the business parameters to an acceptable operating range when:

- Capital costs start to get too high and the contractor starts to suffer large losses.
- Operational costs start to get too high such that the service provider starts to suffer losses.
- The internal rate of return (IRR) becomes impractical from an investor perspective
- The revenue stream from the business does not meet the debt servicing requirements and places the business at risk of foreclosure and being placed in receivership.

A table of the range of typical commercial parameters to be applied to the parties in the Alliance model as applied to the next generation PPPs is provided below.

Party	Acceptable Operating Range	
Equity	Likely to be two variables <ul style="list-style-type: none"> • The amount of equity to be at risk which could range from all to none • The minimum IRR for the minimum level of equity 	<ul style="list-style-type: none"> • Rate of return cap to IRR • Any upside % of sharing above this cap
Debt	% interest rate as a minimum is number of basis points less than market	<ul style="list-style-type: none"> • % interest rate as a maximum. i.e. cap • Any upside % sharing above this cap
Capital Works Provider	Cost component to be put at risk such as <ul style="list-style-type: none"> • Profit • Corporate overheads • % of the reimbursable costs • Limit of Liability 	Maximum profit threshold and any % sharing above this threshold
Operational Service Provider	Basically the same as applies to the Capital Works provider	Basically the same as applies to the Capital Works provider

The initial boundaries of an “acceptable operating range” can be set during the response from the market for particular PPP projects and which can be during the competitive phase of procurement whilst governments still have a choice in the selection of their preferred partners.

The comment and table above are only some initial thoughts and do not in any way represent the complete set of variables to be considered. This paper is intended to stimulate thought for industry experts to further develop into workable future PPP models.

5.1 Possible Selection and Tender Process

There has been considerable criticism of the cost of tendering for recent large PPP projects as well as the length of time highly experienced and valuable industry resources are engaged, particularly in the unsuccessful tender team(s).

For the next generation PPP process described in this paper, it is envisaged that a two stage process be adopted, which will go some way to alleviate the industry criticism indicated above.

The first stage would be a general response from industry similar to an EOI, in which the prospective respondents set out details typical of current EOI's but with some commercial factors as indicated below:

- The team;
- Experience / track record;
- Capability / resources / people proposed;
- Approach to project / CAPEX / OPEX / risks; and
- Commercial factors such as some of those needed to define an acceptable operating range.

The second stage would include only two of the groups (teams) that responded to the Stage 1 EOI. In order to ensure that one of these teams did not withdraw, a reasonable size tender bond would be required to ensure the preservation of competition through the Stage 2 process. It would also be expected that the tendering costs of this second stage would be shared between the public and private sector in a predetermined manner, which could be in direct proportion to the level of funding provided from the public and private sector respectively.

A factor of the Stage 2 process would also be the integration of public sector resources, as in this Risk Sharing model the government is sharing in many of the commercial aspects of the potential

business arrangement, into each tender team to ensure that:

- The government has input to and understanding of each proponent's response;
- The communication is useful and efficient. Probity processes need to be established up front to enable meaningful dialogue and negotiation with tenderers to achieve the best possible outcome for the State; and
- Government gets the type of response it wants and needs.

It is envisaged that the proposed tender process would be considerably less expensive than the current process of fully underwritten bids etc., and also be considerably faster.

6. Conclusion

The traditional PPP approach to the provision of economic infrastructure has delivered a number of successful infrastructure projects, with considerable economic benefits to the community. However, as the model evolved the risk profile for projects has been articulated with greater precision, together with an increase in the risk allocated to the private sector. Other deficiencies to the model have also been identified in this paper. Moreover, the global financial crises has resulted in a tightening in liquidity markets and a more risk adverse investment environment. This has resulted in a scarcity of equity to invest in PPP projects. Without equity PPPs cannot happen.

Australia is faced with an infrastructure back log and the country's infrastructure needs cannot be satisfied by government alone. More innovative ways are required to attract private sector equity to invest in economic infrastructure.

This paper discusses alternative approaches to the delivery of economic infrastructure as alternatives to the traditional PPP model. Firstly, an approach is outlined whereby government appoints a service provider to lead the bid on behalf or with government. Components of the bid are unbundled so that through a competitive process separate offers are sought for the financing, construction, and maintenance of the infrastructure. In this arrangement the best components of the bid are selected. While this approach may provide a better outcome for government and a lower project cost, it does not address the shortage of equity funds associated with the current financial crises and risk adverse nature of the financial markets for economic PPPs. In addition, it does not address the weaknesses identified above in the current PPP model.

An alternative approach is the formation of a State owned corporation, where government raises debt and provides some of its own equity to finance the project. Unbundled bids are sought for each component of the project as outlined above in the "Unbundled" model. However, there is a limit to the amount of debt and equity that governments can provide for the provision of infrastructure. Moreover, political rather than commercial principles may dominate how the asset is managed.

A further option for consideration is for government to set up an Infrastructure Bank with the \$20 Billion Building Australia Fund used for seed money. Investment in the Bank could be attractive to superannuation funds, because it offers two levels of protection: a portfolio at economic and social infrastructure projects, so that the return is less volatile than a single project; and a guaranteed minimum level of investment performance to be provided by government.

While it may be beneficial, at the moment, to have a publicly owned institution involved as an Infrastructure Bank, it is important that it should not limit other investment arrangements from other sources. It is important that market forces ultimately act as a check and balance, and provide necessary competition to ensure long term sustainability in the future.

A preferred approach is a Risk Sharing Partnership in which some of the principles of alliance contracting are adapted to all elements including financing. That is the provision of infrastructure in a partnership between the private and public sector where risks are shared rather than allocated. Under the Risk Sharing Partnership approach, within the normal range of operations, gains and losses are shared between the parties within the Partnership. Above an agreed internal rate of return, governments collect super normal profits or share them with the private sector on an agreed basis. Losses below an agreed IRR are underwritten by government. This arrangement provides a strong incentive for government to actively review the patronage forecasts and other risks that may impact on the IRR.

At the heart of the issue in considering the next generation of PPP model in addition to the suite of PPP models available, is the very important factor of freeing up private sector funds to add to public sector funds for the provision of significant infrastructure. By the selection from a wider range of PPP models which best fits the project and market criteria it would be expected that the PPP market for economic infrastructure projects will be more sustainable

This paper does not suggest having all the answers, but rather puts forward a new paradigm for development by industry experts.