



# Improving Public Private Partnerships: Lessons from Australia

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# Introduction

Public Private Partnerships (PPPs) enjoy a good reputation in Australia for delivering projects on time and within budget. But there have been some high-profile failures, and they remain controversial.

Much hype continues to surround the model. For instance, many of the benefits attributed to the PPP model are not unique to it – such as the transfer of risk to the private sector, efficiencies arising from private sector innovation, and the whole-of-life benefits achieved by bundling maintenance services into the contract. These benefits can also be achieved under more traditional delivery models.

PPPs do, however, have some unique benefits, most particularly those arising from the use of private sector finance. The use of private sector debt and equity provides government with a buffer against the certain risks. And the additional rigour which the investors and lenders apply to risk assessment and monitoring is perhaps the single biggest factor that explains the superior cost and time performance of PPPs over more traditional contract delivery models, after contracts are signed.

There are of course some disadvantages associated with PPPs. While some are more perceived than real, the loss of flexibility, and high transaction and financing costs, are real issues with the PPP model.

Ultimately, the rationale for PPPs should be based on value for money. For the PPP model to survive, it must deliver better value for money for government than the alternatives. This can only occur when the PPP model is used on the right projects, and avoided on the wrong ones. For most infrastructure projects, alternative procurement models will deliver better value for money than a PPP.

Finally, the PPP model must continually evolve in response to lessons learned and market conditions. This report identifies many steps that governments and industry can take to improve the outcomes of PPP projects. The future of the PPP model looks bright.



# What are PPPs?

The terms “Public Private Partnership”, “PPP” and “P3” are defined differently throughout the world.

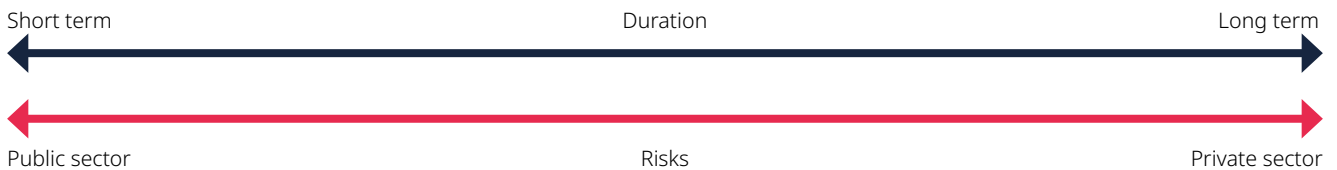
Some people define them broadly, to include any arrangement by which the public and private sector work together to achieve an outcome. Others define them to only include such arrangements if they are long-term, and involve the provision of public services and/or the development of public infrastructure.

Some define them more narrowly again, to also require the use of private sector finance.

The reality is that PPPs are a broad family, as demonstrated by the diagram below.

## PPPs are a broad family

PPP FAMILY				
Operating Franchise	Design, Build, Operate/Maintain	Finance, Design, Building, Operate/Maintain	Long Term Lease	Ownership
<ul style="list-style-type: none"> <li>Existing infrastructure only</li> <li>Performance based remuneration</li> <li>O&amp;M risks transferred</li> <li>Gov retains ownership/revenue/risks</li> <li>Efficiency gains during O&amp;M phase</li> </ul>	<ul style="list-style-type: none"> <li>New/refurbished infrastructure</li> <li>Government funds capital cost</li> <li>Performance based O&amp;M fee</li> <li>DBOM risks transferred</li> <li>Gov retains ownership/revenue/risks</li> <li>Optimise whole-of-life costs</li> </ul>	<ul style="list-style-type: none"> <li>New/refurbished infrastructure</li> <li>Private finance</li> <li>Performance based availability payment, or user charges</li> <li>DBOM risks transferred</li> <li>Some transfer of ownership/revenue risks</li> <li>Optimise whole-of-life costs</li> </ul>	<ul style="list-style-type: none"> <li>Existing infrastructure, but can include new infrastructure</li> <li>New infrastructure can be privately financed</li> <li>Transfer of commercial risks</li> <li>Gov retains regulatory oversight (e.g. tariffs)</li> <li>Efficiency gains</li> </ul>	<ul style="list-style-type: none"> <li>No transfer back to government</li> <li>But government retains a critical role (e.g. counterparty to primary off-take agreement or regulatory role)</li> </ul>
Melbourne Trams, Sydney Ferries	NSW Intercity rail fleet, Waratah train (series II)	Sydney toll roads, Waratah train (series I)	Port of Melbourne	Coal fired electricity generation



This report focuses on the type of PPP described in the middle column of the above diagram, being those that involve:

- private sector finance; and
- the bundling of design, construction, maintenance and sometimes other services into a single long-term 'whole-of-life' contract.

## Two basic forms

This type of PPP can be broken down into two basic forms.

- The first is where the private sector's primary revenue stream takes the form of a service (or availability) payment from government. Australian policy guidance calls these '**social infrastructure PPPs**' because this model is typically used for schools, hospitals, prisons and other 'social' infrastructure.
- The second is where the private sector's primary source of revenue takes the form of charges paid by users of the infrastructure, such as tolls paid by the users of a toll road. These PPPs are often called '**economic infrastructure PPPs**' because they are used for roads, railways and other 'economic' infrastructure.

The terminology is confusing, however, as the first model has also been used to deliver the roads, railways and other economic infrastructure (such as the Peninsula Link road project in Victoria, the Waratah train project and the Sydney Metro Northwest project), it is more apt to call the first model a **service-payment PPP**, and the second a **user-charge PPP**.

Both models share common features. There are, of course, hybrids and other variants of these two basic models.

Unlike other established PPP markets, which are dominated by service-payment PPPs, the Australian PPP market has seen many user-charge PPPs.

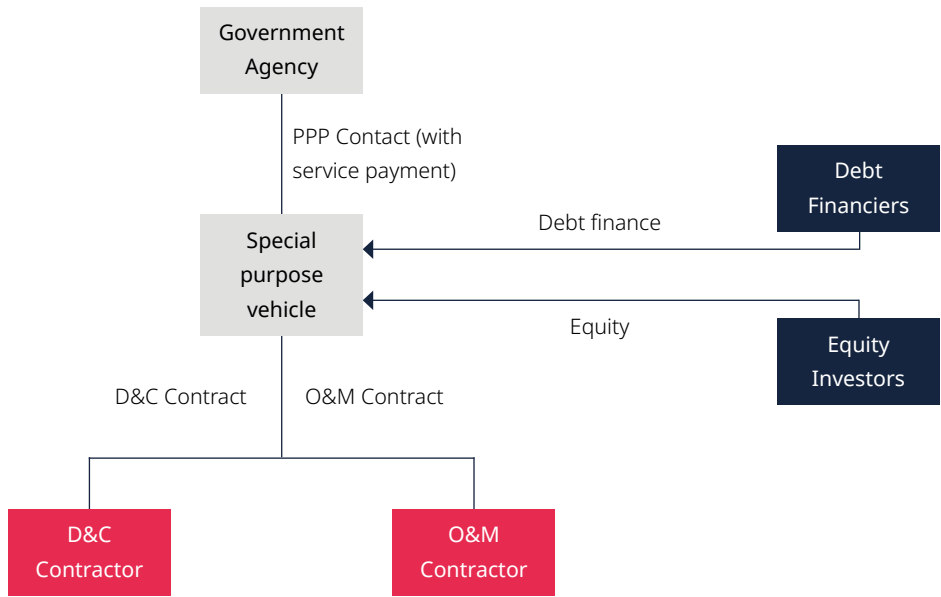
## Two basic types of PPP

TYPE OF PPP	PRIMARY REVENUE STREAM	COMMONLY USED FOR	AUSTRALIAN EXAMPLES
<b>User-charge PPP</b> (also called an 'economic infrastructure PPP')	Tolls/charges paid by users	<ul style="list-style-type: none"> <li>• Roads</li> <li>• Railways</li> <li>• Other "economic" infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Cross City Tunnel</li> <li>• Lane Cove Tunnel</li> <li>• Westlink M7</li> <li>• CityLink</li> <li>• Adelaide – Darwin Railway</li> </ul>
<b>Service – payment PPP</b> (also called a 'social infrastructure PPP')	Service payment (or availability payment) paid by government	<ul style="list-style-type: none"> <li>• Schools</li> <li>• Hospitals</li> <li>• Prisons</li> <li>• Other "social" infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Sydney Metro Northwest</li> <li>• Sydney CBD Light Rail</li> <li>• Ravenhall Prison</li> <li>• Royal Children's Hospital</li> <li>• Penlink</li> <li>• Western Roads Upgrade</li> </ul>

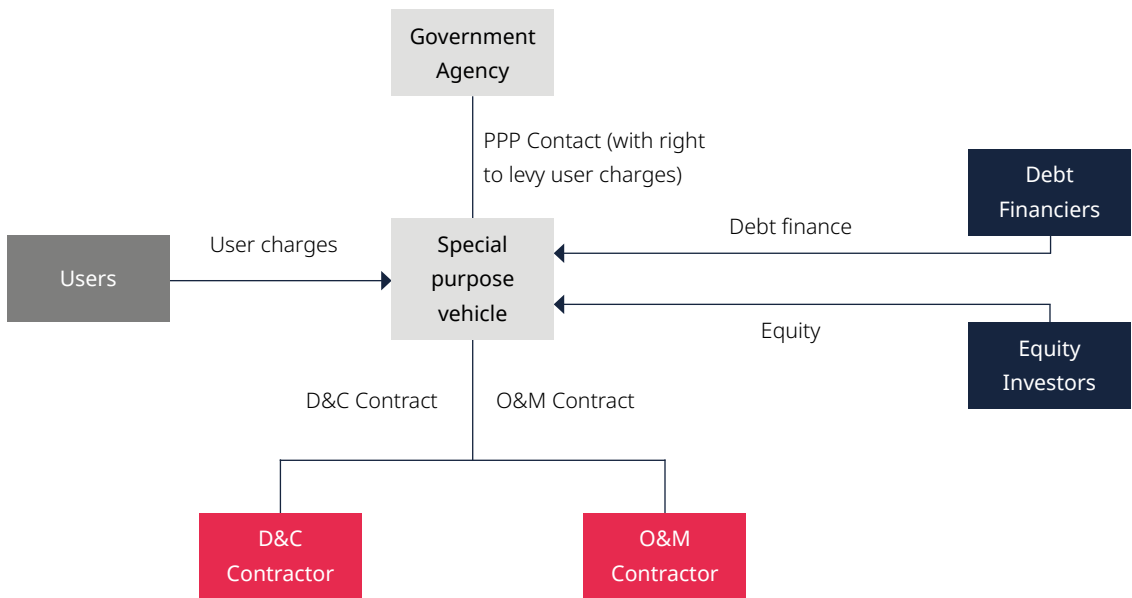
The basic contractual structure for each form is shown below.

**Basic PPP structure**

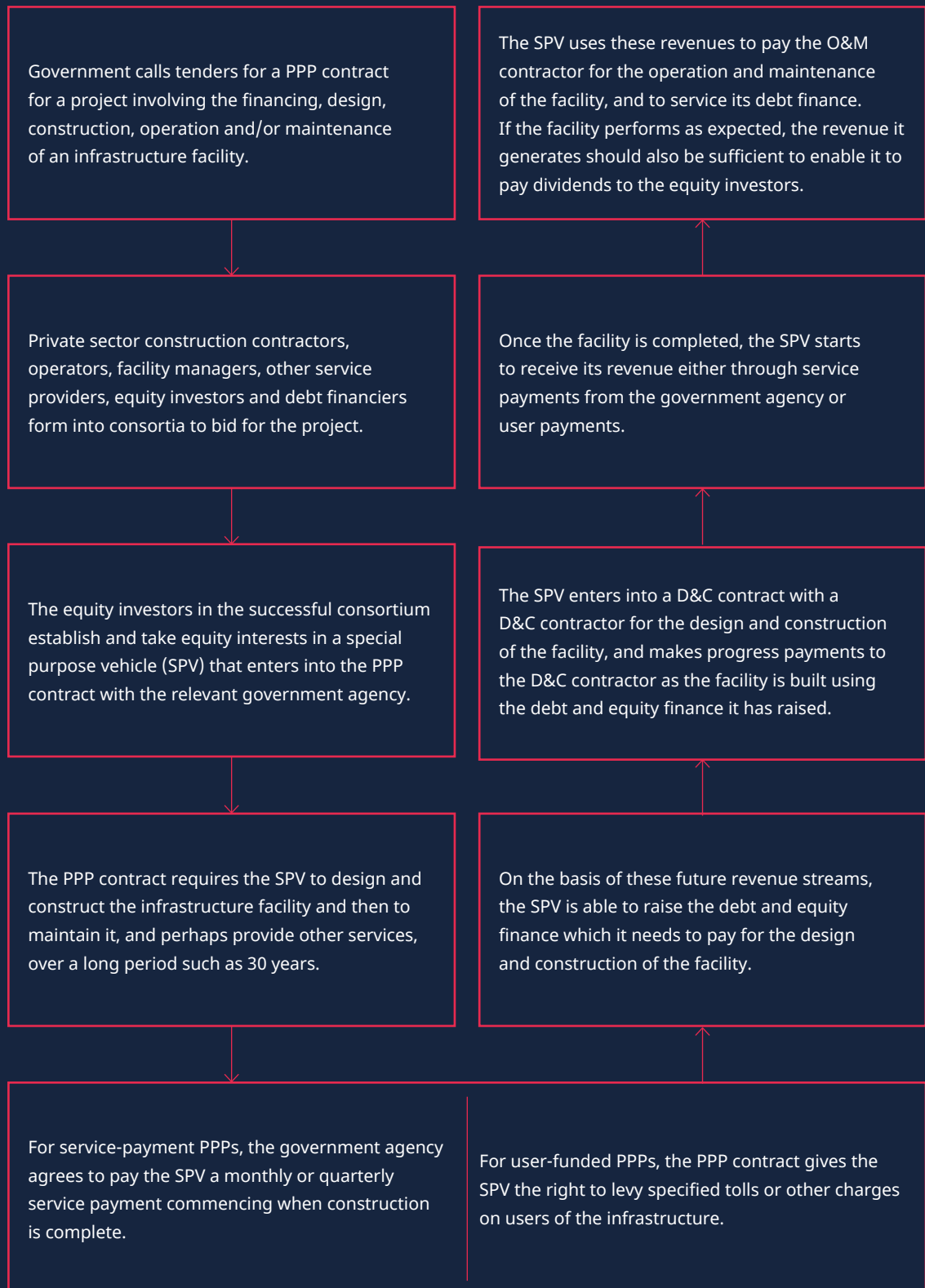
**SERVICE-PAYMENT PPP**



**USER-CHARGE PPP**



## Australian PPPs – how they work



## How common are PPPs?

Over the longer term, PPPs tend to represent less than 10 per cent of total government infrastructure procurement in Australia. The use of PPPs is greatest in New South Wales (NSW) and Victoria, at about 10 percent on average. The actual percentage varies from year to year. There has been limited use of the contractual structure outside the government sector.

This small proportion is appropriate, as better value for money can be achieved by using traditional procurement models for most infrastructure projects.

## Traditional procurement

Most infrastructure is procured in Australia using contractual delivery models other than PPPs – often called ‘traditional procurement’ or ‘traditional contracting models’.

There are many contractual delivery models which fall under the ‘traditional’ banner. The more common types are described below, but there are many more, including hybrids which combine features of two or more models.

### CONSTRUCT ONLY



Government produces a design (or separately engages a private sector design consultant to do so) and then calls for tenders

from private sector constructors to build the facility to government’s design for a fixed price. Government is responsible for the maintenance of the facility.

### DESIGN, CONSTRUCT AND MAINTAIN (DCM)



As per D&C, except that the contractor must also maintain the facility for a specified period – usually between

10 and 30 years – in return for a largely fixed monthly fee. The fixed monthly fee covers planned maintenance activities. Unplanned maintenance, which arises for reasons unrelated to fault by the contractor, is typically paid for on a cost reimbursement or schedule of rates basis. Maintenance payments can also be linked to performance (i.e. abated if the facility is not available due to need to carry out maintenance work, or fails to perform at specified levels).

This model motivates the contractor to design and build the facility in a manner that will minimise the combined design, construction and maintenance costs, which results in a lower whole-of-life cost for government. This model is also commonly referred to as Design, Build & Maintain (**DBM**). Another variant is the Design, Build, Operate & Maintain (**DBOM**) model, where the contractor designs and builds a facility and then operates and maintains it for a specified period.

### DESIGN & CONSTRUCT (D&C)



Government produces a performance specification describing the outcomes that the facility must achieve and

the requirements it must meet. It then calls for tenders from private sector D&C contractors to design and construct a facility that meets the performance specification for a fixed price. As with construct only, government is responsible for maintenance.



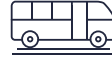
### MANAGING CONTRACTOR



Government appoints a managing contractor who subsequently engages subcontractors via competitive tender processes to

complete the design and construct the facility. The managing contractor is typically engaged early in the process to collaboratively assist government with scope definition, design development and work packaging. The managing contractor is paid a fixed management fee, and is reimbursed for the amounts that it pays to subcontractors. The managing contractor may also receive incentive payments for achieving cost, time and quality targets. Government is responsible for the maintenance of the facility.

### OPERATOR FRANCHISE



Government engages a contractor to provide certain services by operating and maintaining infrastructure

owned by the government. The infrastructure used to provide the services is often uneconomic to duplicate, so ownership of the infrastructure remains with the government to avoid creating a private sector monopoly of indefinite duration. Instead, the franchise to be the monopoly provider of the services is recontested at regular intervals to ensure innovation and best value for money is obtained. Examples include the Victorian tram franchises, the Sydney ferries franchise and numerous bus franchises.

### ALLIANCE



Government, the contractor and the designer agree to collectively share all risks associated with the design and construction of the facility.

It is unusual, but not impossible, for alliance contracts to also cover the maintenance of the facility. The contract includes a sophisticated cost plus remuneration regime where government reimburses the direct costs of the contractor and designer, and pays them a fee on account of profit margin and contribution to overheads that is adjusted upwards or downwards depending upon the collective performance of the alliance members against agreed key performance indicators. The alliance participants agree to a 'no blame' regime, under which they give up any entitlement to make claims against each other for poor performance or negligence. This is done to encourage the alliance participants to accept stretch targets, and abandon adversarial behaviour designed to protect legal positions. The model is particularly suited to risky projects, or projects with uncertain or changing scope, which are difficult to price on a fixed price basis.



# What's good about PPPs?

## Better value for money

The principal reason for using a PPP is that, for suitable projects, a PPP can deliver superior value for money for government than any alternative delivery model. The superior value for money outcome can be achieved in different ways. It is usually a combination of a better infrastructure solution and better outcomes, less risk for government and/or a lower cost for government, when assessed over the period the infrastructure is used.

The rationale for PPPs was not always so. It is evident from early Australian government policies on PPPs that the initial focus was on overcoming fiscal constraints and restrictions on borrowings by State governments. Many countries continue to see PPPs as a means of delivering public infrastructure that the government cannot otherwise afford, rather than a means of achieving best value for money.

The PPP model can only provide superior value for money when used on suitable projects.

*For the service-payment PPP model to survive, it must demonstrate an ability to provide superior value for money than alternative delivery models available to government.*

## Superior cost, time and service outcomes

PPPs enjoy a good reputation in Australia for delivering projects on time and within budget.

The most comprehensive study of the relative performance of PPPs and traditional procurement remains that released by the University of Melbourne in December 2008. This study compared the design and construction phase cost and time outcomes of 25 PPP projects and 42 traditionally procured projects throughout Australia between 2000 and 2008.<sup>1</sup> The study found that, from the time the relevant contract is signed:

- the PPPs experienced average construction cost overruns of 4.3 per cent, compared with 18 per cent for the traditionally procured projects; and
- the average construction phase delay for the PPPs was 1.4 per cent, compared with 25.9 per cent for the traditionally procured projects.

More recently, a new study by the University of Melbourne has been published that investigates the operation phase performance of PPP projects.<sup>2</sup> This study found that:

- 95% of service providers (i.e. school principals, doctors, wardens and contract management staff using the PPP assets to deliver education, health and custodial services to

their client community) stated that the PPP project has delivered on the service delivery outcomes promised by the relevant state government in media releases and other community information documents; and

- the PPP facilities maintain value for money over the long-term. There was no evidence of price creep or risk transfer back to the public sector during the operation phase of the case study projects.

## Greater budgetary certainty

An additional benefit that PPPs can provide over more traditional contracting models is a higher degree of budgetary certainty for the entire project at the time government enters into the first major contract for the project.

Alternative contract delivery models often involve government separately contracting different parts of the project progressively. The designer is contracted ahead of the construction contractor, and if the works are spread across multiple construction contracts, most will be engaged before the total construction price is finally contracted. The operation and/or maintenance contractors are usually only engaged late in the construction process.

Circumstances often change between the time the government enters into the first major contract for a project, and the time it enters into the last one,

1. Colin Duffield, Peter Raisbeck and Ming Xu, National PPP Forum – Benchmarking Study, Phase II – Report on the performance of PPP projects in Australia when compared with a representative sample of traditionally procured infrastructure projects, University of Melbourne, 2008.

2. Colin Duffield, Ali Mohammed Saeed and Nick Tamburro, Measuring the value and services outcomes of Social Infrastructure PPPs in Australia and New Zealand, commissioned and published by Infrastructure Partnerships Australia, April 2020.

many years later. There will often be a change of minister over this period, and perhaps even a change of government. The scope of the project often grows, and the final cost ends up higher than was anticipated at the time the first major contract was signed.

Having started the project, government now needs to finish it. However, had government known the full cost at the time it signed the first contract, it may not have proceeded with the project in its then form or at all.

A PPP avoids this situation by requiring all necessary contracts to design, build, operate and maintain the project to be signed before the government becomes bound by the PPP contract, thereby providing government with much more budgetary certainty at the time it contractually commits to the project.

### Improved project scoping and risk assessment by government

The superior cost and time outcomes on PPPs is also a result of the additional effort government agencies go to when preparing PPP projects relative to more traditional contracts. There are many reasons for this, including the long-term nature of PPP contracts, their high value, and the involvement of treasury departments and other central government agencies.

The long-term nature of PPP contracts makes the procuring government agency think more carefully about the service outcomes that a project should achieve. Why is the infrastructure required? What problem is it solving? Are there cheaper solutions? How will success be measured?

Consequently, the tender documents for PPP projects tend to be more output-focused – they specify the services that the government agency wants delivered, rather than the means by which those services are to be delivered. Infrastructure should be focused primarily on the service outcomes to people and business, rather than the establishment of physical assets which may or may not continue to serve the needs of stakeholders and the wider community over time.

The end result is that the procuring agency's objectives, requirements and specifications for the project are better developed at the time when tenders are called. This, in turn, results in fewer government-initiated contract variations after the contract is awarded.

The level of risk assessment by government agencies prior to contract award is also much greater on PPPs for the same reasons. The risk analysis that underpins the agency's cost estimate tends to far exceed the risk analysis performed by government agencies for cost estimates for traditional procurements. This additional analysis makes the government agency a more informed purchaser, and better able to interrogate the pricing and risk assumptions of bidders.

In theory, there is no reason why government agencies cannot put the same effort into the preparation of output-focussed tender documents, and risk and cost assessments, for traditional procurements. However, while the best practices

developed on PPPs are slowly being applied by government procuring agencies to traditional procurements, PPPs still tend to set the benchmarks in terms of project scoping and risk assessment by government, given the higher levels of expenditure involved.

### Innovation and focus on outcomes

The output/performance focus of government specifications for most PPPs provides greater scope for the private sector to bid innovative solutions which can deliver the required services at a lower whole-of-life cost. As government is more concerned about service levels and outcomes over the applicable period of time rather than the form of physical assets used to deliver them, bidders have an opportunity to think laterally and identify opportunities to provide the required services in new ways that improve outcomes and/or reduce costs.

The use of a PPP model is not a prerequisite to obtaining innovative solutions to service needs. There is no reason why government cannot secure similar levels of private sector innovation during the bidding process for a D&C or DCM contract. A key to greater innovation is to give thought to framing the project objectives in such a way that bidders may come up with a variety of different means to achieve the desired objectives. A minimalist output specification at tender will generate greater innovation than a prescriptive input specification, regardless of the contract model

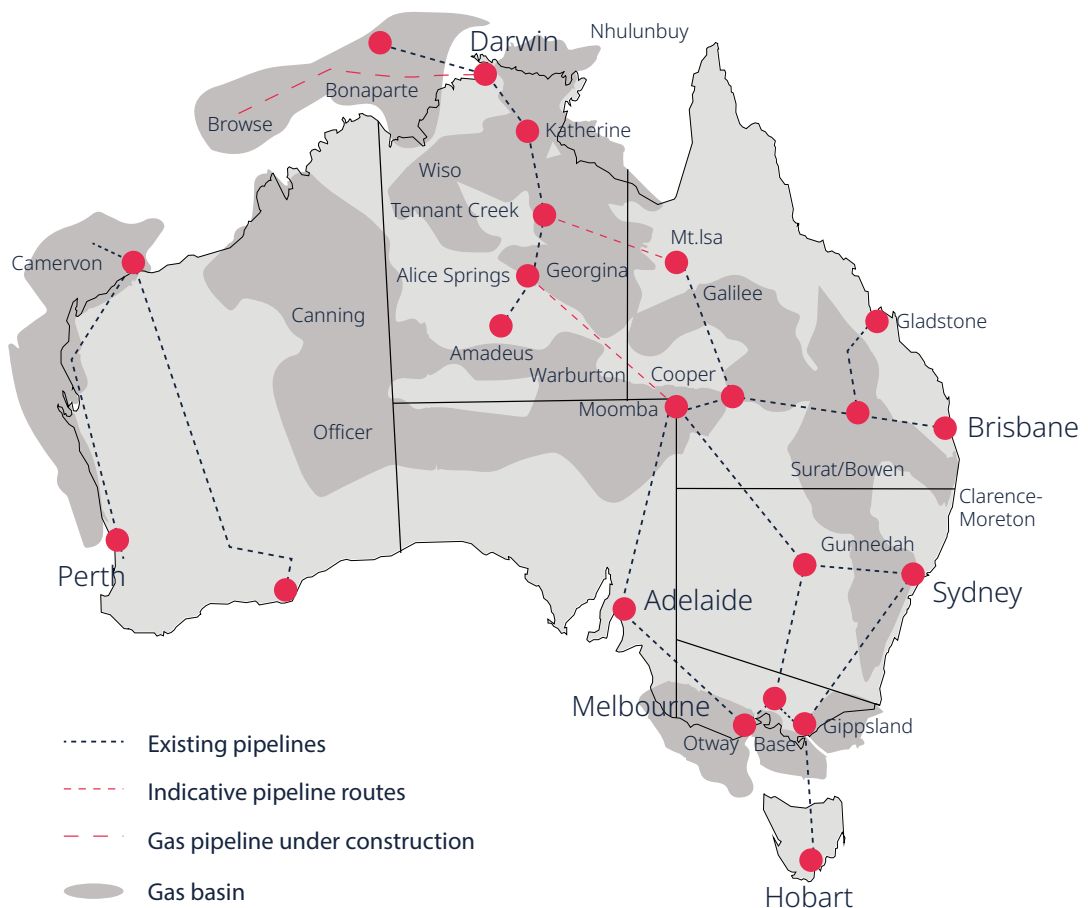
*The level of risk assessment by government agencies prior to contract award is much greater on PPPs.*

### CASE STUDY: NORTHERN GAS PIPELINE

This project (previously known as the North East Gas Interconnector) is a great example of how procurement processes for infrastructure assets can be structured to encourage innovation. The Northern Territory Government wanted to support the private sector development of a pipeline connecting its vast onshore gas reserves to the

gas pipeline network servicing Eastern and Southern Australia. Two potential connection points were identified – Mt Isa in Queensland, and Moomba in South Australia. The competitive process allowed bidders to propose the route, connection points, initial capacity, expansion capacity and the level of government support required, having regard to each

bidder's assessment of the various factors affecting the financial viability of the pipeline. By specifying the problem to be solved, rather than a particular infrastructure solution, the government allowed bidders to develop innovative solutions which resulted in an outcome (in terms of the required level of government support) which few thought possible.



used to deliver the ultimate product. Moreover, a contracting model that bundles operation and maintenance into the contract can help drive operator led innovations.

Similarly, after contract award, the scope for private sector contractors to innovate in the delivery of design, construction, maintenance and other services is often identical under PPPs and many traditional contract delivery models. Having selected the winning bidder based, in part, on its proposed solution, government will wish to lock that solution into the contract, to prevent the contractor from providing an inferior solution that nonetheless meets the government's output specification. Government typically does this by ensuring that the contract requires the design developed by the successful bidder after contract award to not only satisfy the output specification but also be 'at least as good as' the design solution proposed in the bid. This approach, which applies equally to both PPP and more traditional contract delivery models, intentionally limits the innovation that can occur after contract award.

The high level of risk transfer that PPPs and other fixed-price delivery models seek to achieve actually stifles innovation. Innovative solutions often involve more risk than tried and tested ones. Contractors and investors will play it safe if the financial consequences of an innovative approach failing are disproportionate to the benefits they gain if the innovative approach succeeds. If risky innovation is critical to the success of a project, government should consider other contracting models that share this risk, such as alliancing and other forms of collaborative contracting.

### **Due diligence and monitoring by investors and debt financiers**

The higher contractual certainty of cost and time outcomes on PPPs is largely a result of the involvement of private sector investors and debt financiers.

The returns to investors will be reduced if the SPV incurs greater costs than forecast, or its revenues are delayed or reduced due to late completion or poor operating performance. Similarly, the debt financiers that finance the project on a 'limited recourse' basis can only have recourse to the assets of the SPV to recover their debt. Accordingly, they need to be satisfied that the SPV can achieve the cost, time and operating performance outcomes it is projecting, and has appropriate arrangements in place to manage the risks to these outcomes.

Debt financiers will have technical consultants review the project's cost and revenue projections, and the proposed risk management arrangements. They will also closely monitor the performance of the project during the construction and operation phases, which assists with the timely identification and resolution of problems. For example, during the construction phase, the debt financiers will:

- engage a certifier to assess the value of the work completed and what it will cost to complete the construction of the project; and
- only allow further drawdowns of the debt facilities if the forecast cost to complete does not exceed the SPV's available funding.

The draw-stop results in work ceasing until the cost overrun is resolved to the satisfaction of the debt financiers. The equity investors will become very interested in the situation, as they will need to cover the cost overrun if the contractor is entitled to extra money. Accordingly, claims by the contractor for extra money are investigated and promptly solved by those with 'skin in the game'.

The downside of involving investors and debt financiers is reduced flexibility. Government-initiated changes to the project agreements that could adversely affect them will ordinarily require their consent. The equity investors will typically give consent if the potential rewards for them from the change are commensurate with the additional risks. Debt financiers, on the other hand, will usually not share in the financial benefits that flow to the SPV's investors from changes to the project that involve additional risk for the SPV. The debt financiers can therefore be an impediment to changes that the government and the SPV's investors would like to make to the project.

There is an open question as to whether the debt financiers' consent should be required for every change to the project agreements, or only those that could materially affect the SPV's ability to service and repay the debt.

### **Planning and allowance for operation and maintenance costs**

PPP contracts bundle the provision of maintenance and other operation phase services into the same contract as the design and construction services. The SPV is required to deliver maintenance

and other services to the specified standard throughout the term of the contract.

The revenues received by the SPV in the form of user charges or service payments must therefore cover the cost of the maintenance and other services, in addition to the capital expenditure and financing costs. If the SPV fails to allow for the cost of performing necessary maintenance and renewals, it will jeopardise its revenue stream and, potentially, risk termination of the PPP contract. Accordingly, an appropriate allowance is made. For a typical school PPP, about 30 per cent of the service payment is for the cost of maintenance and other operation phase services. The percentage is higher for hospital PPPs, especially if the SPV provides the clinical health services.

When infrastructure is built under a traditional short-term construction contract, the future funding required to operate and maintain the infrastructure is not always provided for. When budget cuts are imposed on government agencies, facilities often end up being maintained according to the available budget, rather than to specified standards. The PPP model forces the investors to plan and budget for necessary maintenance upfront.

### Funding source – if user charge

It is often said that PPPs expand the funding available for public infrastructure. But this is only true in the case of user charge PPPs. Service-payment PPPs simply substitute government borrowings for a different liability – a commitment to pay a service payment to the SPV.

When assessing the credit rating of a government, ratings agencies consider all forward financial commitments of the government, including its commitments to pay service payments on PPPs.

However, where there is a significant contribution to the funding of a project from user charges, a PPP does expand the funding available to government.

Although service-payment PPPs do not expand the funding available to government, they do allow government to spread its payment obligations over a long period of time. The diagrams below compare the payment obligations of government on a typical traditional procurement with those on a service-payment PPP.

#### CASE STUDY: CROSS CITY, LANE COVE AND M7 TOLL ROADS

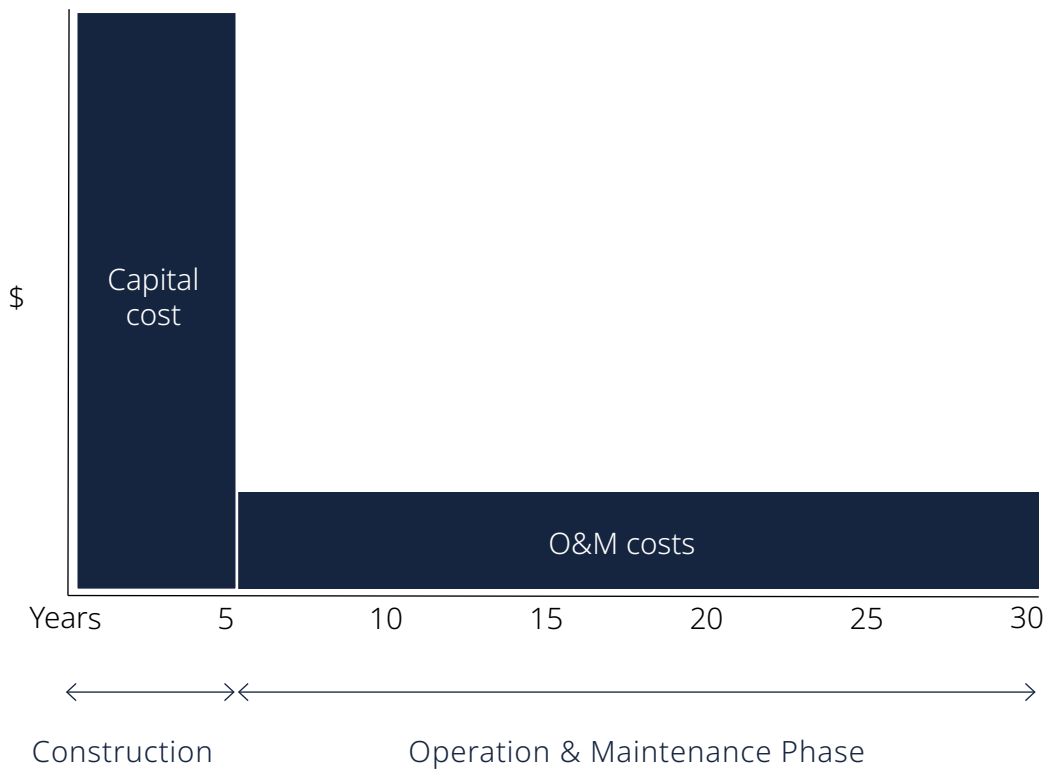
Each of these toll roads were wholly built with private sector money. No government funding was provided for these projects, aside from government money used to buy the land which the government now owns. Indeed, the successful bidder on each project paid an upfront amount to the NSW Government for the concession to undertake the project.

The combined cost of constructing the Cross City Tunnel, Lane Cove Tunnel and M7 exceeded AUD3 billion. If that cost had been financed by State debt, annual interest costs would have been about AUD200 million, excluding principal repayments. It would have also cost the State about AUD120 million per annum to operate and maintain the three roads, which would have brought the total annual costs to the State to about AUD320 million (plus principal repayments).

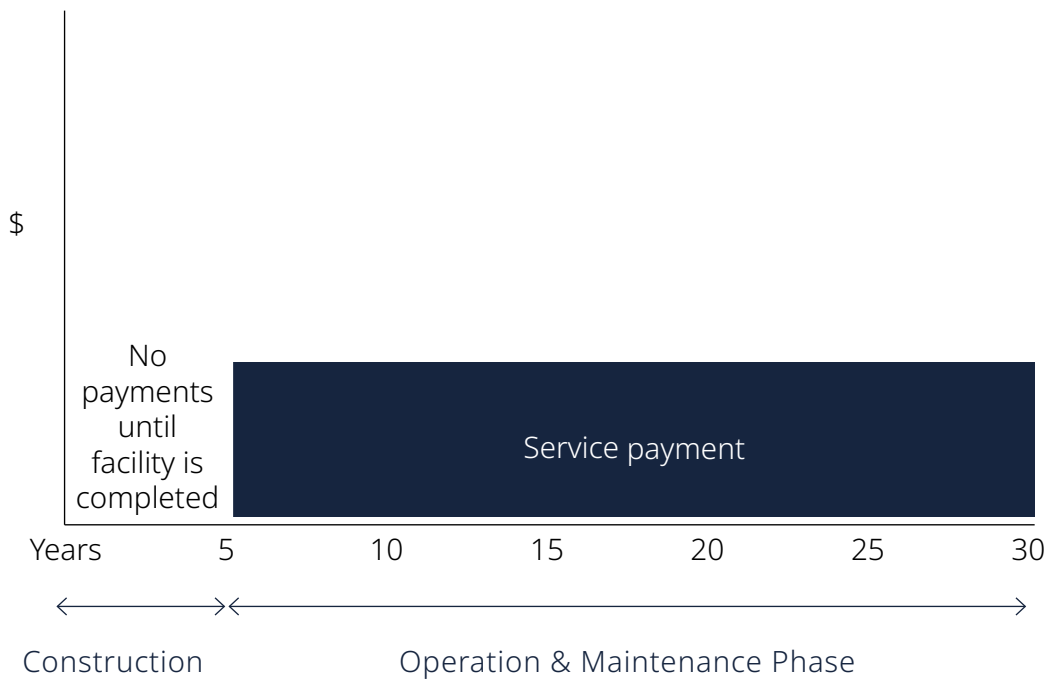
Over the 10-year period preceding the opening of the Cross City Tunnel, the total capital expenditure by the then Roads and Traffic Authority in the Sydney Metropolitan area (excluding toll roads) had been AUD3.4 billion, or an average of AUD340 million per year.

Accordingly, these three user-charge toll roads represented the equivalent of 10 years' spending from the public purse.

### Traditional Procurement



### Service-Payment PPP





## Risk transfer

A key benefit attributed to PPPs is that they achieve significant risk transfer from the government to the private sector.

Australian PPPs seek to allocate project risks to the parties best able to manage them. Optimal risk allocation is the goal, where risks are allocated in a

manner that minimises the aggregate cost of managing the risks over the term of the contract. Only those risks that the private sector can manage at a lower cost than the government should be allocated to the private sector.



**The risk allocation for most PPPs is generally as follows:**

**Time risk**

The SPV assumes most risks associated with the design and construction of the facility, including the risk that it will cost more than anticipated. The SPV then transfers these risks to a D&C contractor under a D&C contract.

**Construction risks taken by Government**

Government assumes the risk of its performance specifications for the facility being inadequate. If government ultimately requires service levels different to those specified in its performance specifications, it will need to direct a “variation” under the PPP contract and pay “variation costs” to the SPV to cover the additional costs and revenue impacts associated with the variation over the life of the contract. The SPV will, in turn, direct a corresponding variation under its D&C contract and/or O&M contract and pay variation costs to the D&C contractor and/or O&M contractor to cover the additional costs that they incur.

**Loss or damage**

The SPV assumes most of the risks associated with the operation and/or maintenance of the facility and the provision of any other services that it must provide under the PPP contract, including the risk that it costs more than expected to provide these services. The SPV then transfers the operation and/or maintenance risks to its O&M contractor under the O&M contract, which will require the O&M contractor to operate and/or maintain the facility in return for a fixed fee. The SPV may enter into similar contracts with other contractors for any other services that the SPV must provide.

**Poor service provision**

If the demographics of an area change such that the services provided by the facility are no longer required, government bears this risk in that it must continue to pay the service charge or bear the costs of terminating the PPP contract before its expiry.

**Revenue risk (user-charge PPP)**

The risk allocation for user-charge PPPs is much the same, except that there is no service payment. Instead, when construction is completed, the SPV's right to levy user charges commences. The SPV and its equity and debt financiers typically bear the risk of revenues from user charges being less than expected (although not always – for example, the NSW Government guaranteed minimum revenue levels from user charges on the Sydney Harbour Tunnel and Sydney Airport Link projects).

**Design and construction**

The D&C contract will require the D&C contractor to design and construct the facility by a specified “date for completion”, in return for a fixed price. The “date for completion” in the D&C contract will typically correspond with the date by which the facility is to commence operations under the PPP contract. If the D&C contractor fails to achieve completion by the specified date, it will be required to pay liquidated damages to the SPV. The daily rate for liquidated damages is typically set at a level which compensates the SPV for the service payment it would have received under the PPP contract if the facility had been completed on time, less any saving in the fee it pays to its O&M contractor on account of the operation and maintenance services being deferred because of the late completion.

**Inadequate performance specifications**

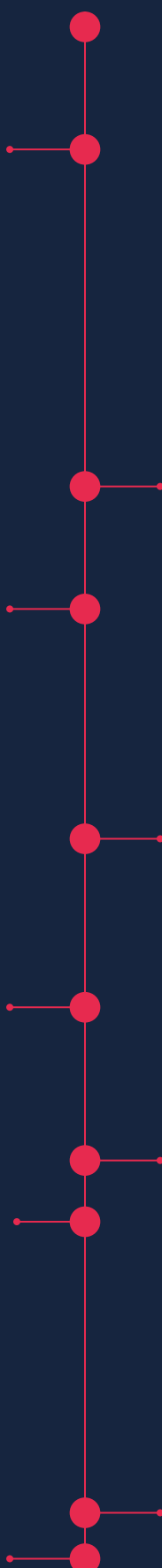
Government will accept certain risks associated with the construction of the facility. For example, government usually bears the risk of obtaining and providing access to the agreed construction site, and the risk of construction delays or additional costs caused by legal challenges to the project's planning approval that government has obtained.

**Operation and maintenance**

The SPV bears the risk of loss or damage to the facility, and transfers this to the D&C contractor during the construction phase, and to the O&M contractor during the operations phase. The relevant contractor, in turn, obtains insurance for this risk. The government bears the risk of service discontinuity (or delay to completion of the facility, if the loss occurs during the construction phase) while the loss or damage is being reinstated.

**Change to service needs**

For service-payment PPPs, government will pay the SPV a service payment (in monthly or quarterly instalments) once construction is completed and service provision commences. The service payment is abated (i.e. reduced) if the services do not meet the full requirements of the specifications. These abatements are wholly or mostly passed through to the O&M contractor, via a corresponding deduction to the fee payable by the SPV to the O&M contractor under the O&M contract.





This basic PPP risk allocation is summarised in the below table.

RISK	GOVERNMENT	SPV (EQUITY INVESTORS AND DEBT FINANCIERS)	D&C CONTRACTOR	O&M CONTRACTOR
Design and construction risks			✓	
Operation and maintenance risks				✓
Inadequate performance specifications	✓			
Site access; legal challenge to planning approval	✓			
Change in law	✓			
Demand risk (Service-payment PPP)	✓			
Demand risk (User-charge PPP)		✓		
Loss or damage to facility during D&C phase			✓	
Loss or damage to facility during O&M phase				✓
Default/Insolvency of Contractor		✓		
Default/Insolvency of SPV	✓			

**Is private finance needed to achieve this risk transfer?**

Much of the above risk transfer can be achieved under publicly-funded delivery models. In particular, government can achieve the same risk transfer in relation to the design, construction, operation and maintenance risks, and the risk of loss or damage, by directly engaging the D&C contractor and the O&M contractor under contracts identical to the D&C and O&M contracts described above.

However, government achieves additional risk transfer under a PPP that isn't achieved under more traditional procurement models.

**DEMAND RISK**

In the case of user-charge PPPs, demand risk is typically transferred to the SPV and its equity investors and debt financiers. This risk generally remains with government under government-funded delivery models, including service-payment PPPs. While demand risk can be transferred under delivery models that don't involve private finance, it is the equity investors and debt financiers, as opposed to private sector contractors, that have the financial capacity to absorb demand risk.

**CONTRACTOR INSOLVENCY AND DEFAULT**

Under the PPP model, the private finance provided by the SPV's equity investors and debt financiers

provides government with a buffer against the risks of contractor insolvency, and default for which the contractor's liability is capped or excluded. In particular, government is partially protected under a PPP, because the equity investors and debt financiers will generally invest additional resources in solving problems caused by contractor default or insolvency if failing to do so would reduce the value of their investment or loan. The additional resources provided by investors or financiers may be sufficient to solve the problem, in which event government is shielded from the risk. It is only when the investors or financiers are unable or unwilling to provide further resources to solve the problem that the risk shifts back to government.

### **CONTRACTOR CLAIM PROTECTION**

The imposition of the SPV between the government and the contractors on a PPP can have the practical effect of shielding government from claims made by the contractors for extra time and/or extra money. On a PPP, such claims by contractors must be brought against the SPV in the first instance. It will then be a matter for the SPV as to whether or not the claim should be passed upstream to the government. It is in the SPV's interest to maintain a good working relationship with government on a significant contract that might run for decades. Accordingly, the SPV will prefer to resolve such claims with its contractors before passing them on to government. Further, many PPP contracts are structured so that the government agency does not need to administer regular claims by the SPV for payment or extensions of time during the construction phase. By keeping government out of this contract administration task, the risk of liability arising from poor contract administration practices is reduced.

### **Reduced payment for poor performance**

On most PPPs, the government agency is not required to make any payments until construction is completed and service provision commences. Accordingly, the risk of government making progress payments under a traditional construction contract in respect

of a facility that may never achieve completion, or that doesn't work as intended, is avoided, at least in theory. The reality is often more nuanced than this on a PPP, as the most effective way of government achieving the outcomes it was seeking will often involve getting the incumbent D&C contractor to complete and/or fix the incomplete or defective facility, rather than starting again from scratch with a new D&C contractor. Even so, government's negotiating position in such a scenario will typically be superior in the case of a PPP compared with more traditional procurement models.

### **Financial incentives drive timely completion**

The superior time performance of PPPs is often said to be due to financial incentives built into the PPP model. The service payment for service-payment PPPs does not commence until the facility is completed and services commence. Likewise, user charges can generally only be levied on a user-charge PPP once construction is completed.

Sometimes the SPV's revenue earning period will be structured so that early completion results in a longer revenue-earning period for the SPV, and late completion results in a shorter revenue-earning period. The SPV will often agree to share any revenue it earns during the 'additional' revenue-earning

period with the D&C contractor. Most Australian toll road PPPs have included such a regime for the sharing with the D&C contractor of tolls collected by the SPV between the actual date of opening and the (later) contracted date for opening.

However, financial incentives for the timely completion of construction can also be built into traditional delivery models – for example, liquidated damages for late completion. Accordingly, the superior time performance of PPPs is more likely caused by the rigorous assessment by lenders and equity investors of risks that could delay construction, and the careful management of the D&C contract to ensure that the liquidated damages regime remains enforceable.

### **Industrial relations reform**

One reason for increased efficiency under a PPP is the potential for industrial relations reform in the provision of the relevant services. As with other aspects of a PPP, the SPV's investors and contractors are financially motivated to find efficiencies in their industrial relations arrangements. The scope for such efficiency gains tends to be greater when the infrastructure is operated or maintained by the private sector as the private sector is not as constrained as government in the terms on which it can employ workers to provide the necessary services.



# Problems with PPPs – perceived and real

PPPs remain controversial. Critics point to many problems – some perceived, others real. This section considers these problems. Some suggested improvements are examined in the next section.

## Using private finance adds additional cost

The use of private finance adds additional cost that do not arise under a public-funded contract delivery model, as the SPV will need to pay interest on the debt finance, and will be expected to provide an equity return to its equity investors.

The SPV will need to recover the cost of this capital via:

- the service payment; or
- the user charges.

Accordingly, the SPV's financing costs will be passed through to:

- government (taxpayers), via larger service payments; or
- users, via higher users charges (or a longer concession period).

A PPP can only deliver better value for money compared to more traditional procurement if the benefits obtained from using private finance exceed the cost of the private finance.

## Higher financing costs

PPPs are regularly criticised on the basis that governments can borrow finance more cheaply than the private sector.

It is true that many governments can borrow finance more cheaply than private sector borrowers, due to their higher credit rating. Many Australian governments, for example, enjoy a AAA credit rating, whereas most Australian PPP SPVs have an A – or BBB+ credit rating (or equivalent bank internal rating) at the time they raise debt.

But to access the cheaper finance, governments need to borrow on a full recourse basis, and agree to repay the loan regardless of whether or not the net revenues generated by the project are sufficient to repay the loan. Accordingly, when government borrows for a project on a full recourse basis, the government ends up bearing the risk of poor project performance.

When a SPV borrows debt for a project, it does so on a "limited recourse" basis (i.e. on the basis the debt financiers can only have recourse to the assets of the SPV (i.e. the project's assets and revenues), and cannot have recourse to the SPV's equity investors, or to government.

Because the lenders can only have recourse to the project's revenues and assets, they end up sharing the risk of the poor project performance, if poor project performance leaves the SPV with insufficient surplus cash to repay the debt. Accordingly, lenders will charge a higher interest rate when lending to SPVs, on account of the higher credit risk.

If a government-owned SPV raised finance for a project on a limited recourse basis, thereby exposing the debt financiers (rather than government) to the risk of poor project performance, the government-owned SPV would incur the same borrowing costs as a private sector-owned SPV. The project finance raised by the NSW government-owned Sydney Motorway Company for the WestConnex project was an example of this.

While the higher cost of private sector finance will ultimately be passed on to government or users, the government receives the benefit of the buffer that the private sector finance provides against the risk of contractor insolvency or default for which the contractor's liability has exhausted and, in some cases, demand risk.

We look at some methods to minimise the higher financing costs later.

*Government borrowing costs less because it borrows on a full, not limited, recourse basis.*

## Failed (insolvent) PPPs

Most of the so-called ‘failed PPPs’ in Australia have been user-charge PPPs, where the revenue generated by the project was well below that forecast by the consortium’s investors, leading to the insolvency of the SPV. Very few service-payment PPPs in Australia have resulted in an insolvent SPV.

But does the insolvency of the SPV really mean that the PPP has failed? The answer can depend on whose perspective one takes.

Consider, for example, the case of the Cross City Tunnel, where:

- the receiver appointed by the lenders was able to sell the project to new equity investors for a price which enabled the lenders to be repaid in full, and for a partial return of equity to the original equity investors;
- the government did not have to bail out the project via additional government funding;
- the road remained open to users at all times during the insolvency, for tolls no higher than those originally contemplated. In fact, there were periods when toll levels were reduced by the SPV below the maximum permitted under the contract, to entice more motorists to use the road;
- the insolvency did not affect any payments under the D&C or O&M contracts; and
- a significant piece of infrastructure was delivered at a cost to taxpayers far less than would have been the case had government procured it under a publicly funded delivery model.

Similar outcomes have been achieved on other so-called failed PPPs, such as the Lane Cove Tunnel and Adelaide-Darwin railway projects (although the sale proceeds on both were insufficient to fully repay the outstanding senior debt).

While these projects failed to achieve their revenue forecasts, the consequences of this risk were borne as intended, i.e. firstly by the equity investors and then by the lenders. From their perspective, these projects failed. However, the objectives of government and the SPV’s contractors were achieved, and from their perspective these projects can be considered successes.

The downside for government was that equity investors and debt financiers lost their appetite for demand risk on greenfield transport projects. This has forced government to use contractual delivery models under which government bears much more demand risk.

Despite this, recent transactions such as the sale of WestConnex in Sydney and the NorthConnex and Western Distributor projects have seen the private sector accepting demand risk on greenfield projects. We expect this trend will continue, but with the private sector taking a more cautious approach to aggressive demand and revenue forecasts.

## Risk transfer is illusory

Critics of PPPs say the risk transfer is illusory.

It is true there have been some Australian PPPs where the government has felt the need to:

- take control of a project; or
- provide additional financial support to a project,

because risks had occurred that the private sector had accepted but ultimately not been able to manage.

For example, in October 2000, the Victorian Government took control of the Metropolitan Women’s Correctional Centre to overcome a failure by the private sector to provide adequate service levels. In the same month, it also bought back the Latrobe Public Hospital project for similar reasons. And in 2006, the NSW Government announced it would buy back the contract for the provision of health services at the Port Macquarie Base Hospital to address poor service levels. In each case, the private sector had underestimated the cost of meeting its service obligations and, in the case of the hospitals, had underestimated demand risk.

More recently, in 2012, the NSW Government agreed to provide conditional deferred equity of AUD175 million to the Waratah train PPP project, to overcome concerns regarding the SPV’s ability to refinance its debt in 2018.

So, there have been occasions where government has ended up sharing some of the risk that it thought it had transferred to the private sector under a PPP contract.



That said, there are many more PPPs where the private sector has paid dearly for miscalculating

or mispricing the risks involved. In recent times, it has either been the design and construction

costs, or the operating revenues that have been miscalculated. Examples include:

 <p>D&amp;C costs</p>	<ul style="list-style-type: none"> <li>• Southern Cross Railway Station: Leighton Holdings announced forecast losses of AUD122.6 million as a result of cost overruns under the D&amp;C contract</li> <li>• Waratah Train: Downer EDI announced losses totalling AUD440 million on the D&amp;C contract</li> <li>• Victorian Desalination Plant: in March 2012, Leighton Holdings announced that it expected to make a loss of AUD602 million on the D&amp;C contract, after originally forecasting a profit of almost AUD300 million</li> <li>• Brisbane Airport Link: at the same time, Leighton Holdings announced that it expected to make a loss of AUD668 million on the D&amp;C contract, after originally expecting to make a profit of AUD407 million</li> </ul>
 <p>Operating revenues</p>	<ul style="list-style-type: none"> <li>• Toll road projects where traffic has been overestimated: those holding equity in the Cross City Tunnel project were expected to lose between 80 and 90 cents for every dollar they invested, when the project was sold by the receiver in June 2007. But they fared better than those who held equity in the Lane Cove Tunnel, who lost all of their equity when that project was sold by the receiver. Indeed, the lenders also took a haircut on that project, as the sale proceeds were insufficient to fully repay the debt. Those who bought ConnectEast shares for \$1 in 2004 received just 55 cents for their securities when the road was sold in September 2011. On CLEM7, RiverCity Motorway did not collect enough tolls to pay the interest on its debt and went into receivership rendering the shares worthless. Similarly, investors in BrisConnections which undertook the Brisbane Airport Link project lost their equity</li> <li>• Brisbane Airtrain: initial predictions of passenger numbers went unrealised, resulting in a financial restructure which saw debt swapped into equity, and the interests of existing equity investors reduced by about half</li> <li>• AustralAsia (Adelaide-Darwin) Railway: demand for rail freight services was over-estimated resulting in the SPV becoming insolvent, and the project being sold by the receivers for an amount less than the senior debt</li> </ul>

Clearly, risk transfer was not illusory on these PPPs.

Perhaps, with the recent shift to more 'full service' hospital and prison PPPs with significant operating and maintenance costs,

we may see more instances of the O&M contractor seeking to cut corners on service levels as a result of seriously underestimating these costs? This could lead to more instances where government determines that the only way it

can deliver the services levels the community expects is by taking control of the project or providing additional money to the O&M contractor.

## Insufficient flexibility

PPPs involve long-term commitments, often in the order of 30+ years. Breaking a PPP contract early can be expensive, as counterparties will be entitled to be compensated for the return they would have derived from the contract. Accordingly, government should not contract for a term longer than it can sensibly commit to.

That said, infrastructure investments are inherently long-term in nature. If government decides that a hospital that is only 10 years old is no longer required, it will be expensive to abandon it, having regard to sunk capital costs, even if it was built using traditional short-term construction contracts. Accordingly, for infrastructure having a long useful life, it can be sensible to make long-term contractual commitments.

Unlike most traditional contract delivery models, PPPs are not a two party contract that can be varied by agreement between the government and its contractor. Rather, in the most basic of PPP structures there are at least four

separate private sector groups – the equity investors, the debt financiers, the D&C contractor and the O&M contractor – each with different commercial interests in the project.

As a general rule, before the SPV can agree a change to the PPP contract with the government, the SPV must obtain the agreement of each of these groups, if the change to the PPP contract will increase their obligations or otherwise adversely affect their interests.

This lack of flexibility is especially problematic when a PPP asset forms part of a broader network. Government can find that the PPP contract not only impairs its ability to make changes to the PPP asset, but it also impairs government's ability to make changes to the broader network. In these situations, government may be better served by a more traditional contracting model that can more easily accommodate future changes.

We explore in the next chapter various ways by which additional flexibility can be built into PPPs.

## Fiscal illusion – a way to hide debt

Opponents say governments favour PPPs because they shift the project off the government's balance sheet. While this may have been true in Australia in the late 1990s, balance sheet treatment is no longer a driver of Australian PPPs.

Currently, most Australian governments will only commit to a project following the allocation of its full capital costs within the relevant government's budgetary cycle. If the government chooses to proceed with a service-payment PPP model, it reallocates that capital allocation to cover its future service payment obligations, which are shown in its balance sheet as a liability.

From 1 January 2019, AASB 1059 will also require most user-charge PPPs to be accounted for on the relevant government's balance sheet as an asset with a corresponding liability reflecting the unearned user-charge revenue over the remaining concession period.

*PPPs are inflexible because they involve many more parties than more traditional contracting models, and because they are long-term in nature.*

## Fetter on future decision making

PPPs can constrain flexibility of future public policy decision making. This is particularly so with user-charge PPPs.

For example, the existing Sydney toll road concessions are an impediment to the implementation of a consistent network wide road-user charging policy across the Sydney orbital network (let alone the broader Sydney or NSW road network), as any changes to the tolling arrangements for those parts of the orbital network operated by existing concessionaires require their agreement. Those existing concession agreements also contain provisions which can require the government to compensate the concessionaire for the loss of toll revenue associated with certain transport policy decisions, such as the development of alternative roads or transport options which take traffic away from the toll road.

Governments should avoid making contractual promises that fetter the ability of future governments to implement their policies, as such promises are unenforceable under Australian law. Rather, it is helpful for PPP contracts to reflect the legal position by expressly stating that they do not affect the ability of the government of the day to implement its policies. It is, however, appropriate for a PPP contract to:

- record any agreed assumptions as to future government actions which underpin the private sector's investment in the project; and

- require government to compensate the SPV if future government actions depart from the agreed assumptions and this adversely affects the SPV.

## Transparency

Critics have complained about the lack of transparency regarding returns made by investors and future liabilities of taxpayers. Much of this criticism has been directed at UK PPPs, rather than Australian PPPs.

'Excessive profits' and 'windfall gains' to equity investors on Australian PPPs are rare. Refinancing gains are typically shared 50:50. And user-charge PPPs typically require revenues in excess of those forecast in the base case financial model to be shared with government. Windfall gains from unused major maintenance reserves are also uncommon in Australia.

In 2012, the UK Government announced a number of changes to its PFI PPP policy aimed at improving transparency and reining-in excessive returns to the private sector, including:

- government taking a minority equity interest in the SPV and thereby getting a seat on the SPV's board of directors; and
- requiring the private sector equity investors to provide forecast and actual equity return information, for publication.

The new policy became known as PF2. But were these reforms wise?

When government takes an equity interest in the SPV, it becomes exposed to the risks that it has transferred to the SPV under the PPP contract. Government's equity interest also creates conflicts of interest for the government. For example, the termination of the PPP contract by the procuring agency because of poor performance of the SPV would be contrary to the government's interest as an equity investor.

It also exposes the private sector equity investors to the risk that government will exercise its rights as an equity investor in a way that advances government's broader interests, such as its re-election prospects, rather than the profitability of the SPV.

Requiring private sector investors to disclose their forecast and actual equity returns is a major disincentive to investing in PPPs, as private sector businesses are not normally required to disclose this commercially sensitive information.

Some suggestions on how transparency could be improved for Australian PPPs follow in the next chapter.

*There is room for improvement in the transparency of government decision-making surrounding PPPs.*

## UK has abandoned PFI and off-balance sheet projects

In 2012, the UK Government replaced its Private Finance Initiative (PFI) with Private Finance 2 (PF2), in response to widespread concerns about value for money.

Between 2012 and 2018, PF2 was used only six times, for projects with a total capital value of around £900 million, comprising only 0.5% of public investment over that period.

In 2018, the UK Government announced it would no longer use PF2 for new government projects, recognising that the model created a “fiscal illusion” and a long-term fiscal risk for the taxpayer, inflexibility for public service providers, and operational complexity for public sector contract holders.

The government has said in its Infrastructure Finance Review consultation paper, released in March 2019, that it will not be seeking a like-for-like replacement for either PFI or PF2, and will therefore no longer procure off-balance sheet projects using a design, build, finance and maintain/operate (DBFM or DBFO) contracting structure where the taxpayer directly pays for the project.

But it also says that private finance can still bring benefits to government-funded infrastructure, for example in risk management, project discipline and innovation, so the government is open to exploring new ideas for using

private capital in government projects, including through on-balance sheet structures.

However, the government wants greater transparency, and has said new ideas must be able to demonstrate that the benefits brought by private capital outweigh the additional cost to the taxpayer of using it.

## Enforceability of abatement regimes

The payment regime for a service-payment PPP often allows the government to abate or reduce the service payment by pre-agreed amounts if the services are not provided to the desired standard. These abatements are typically passed through to the SPV's contractors and are critical in aligning the contractor's commercial interests with the outcomes that government is seeking to achieve, and driving appropriate contractor behaviour.

For many years, there was a risk that abatement regimes could be declared to be unenforceable on the basis that they offend the legal rule against contractual penalties. This rule renders unenforceable any provision in a contract that seeks to punish a party for non-observance of a contractual stipulation. The rationale for the rule is grounded in public policy – the law of contract has no role in punishing wrongdoing. Rather, the purpose of contract law is to satisfy the expectations of the party entitled to performance.

This risk – that abatement regimes could be declared unenforceable – has diminished in recent years as

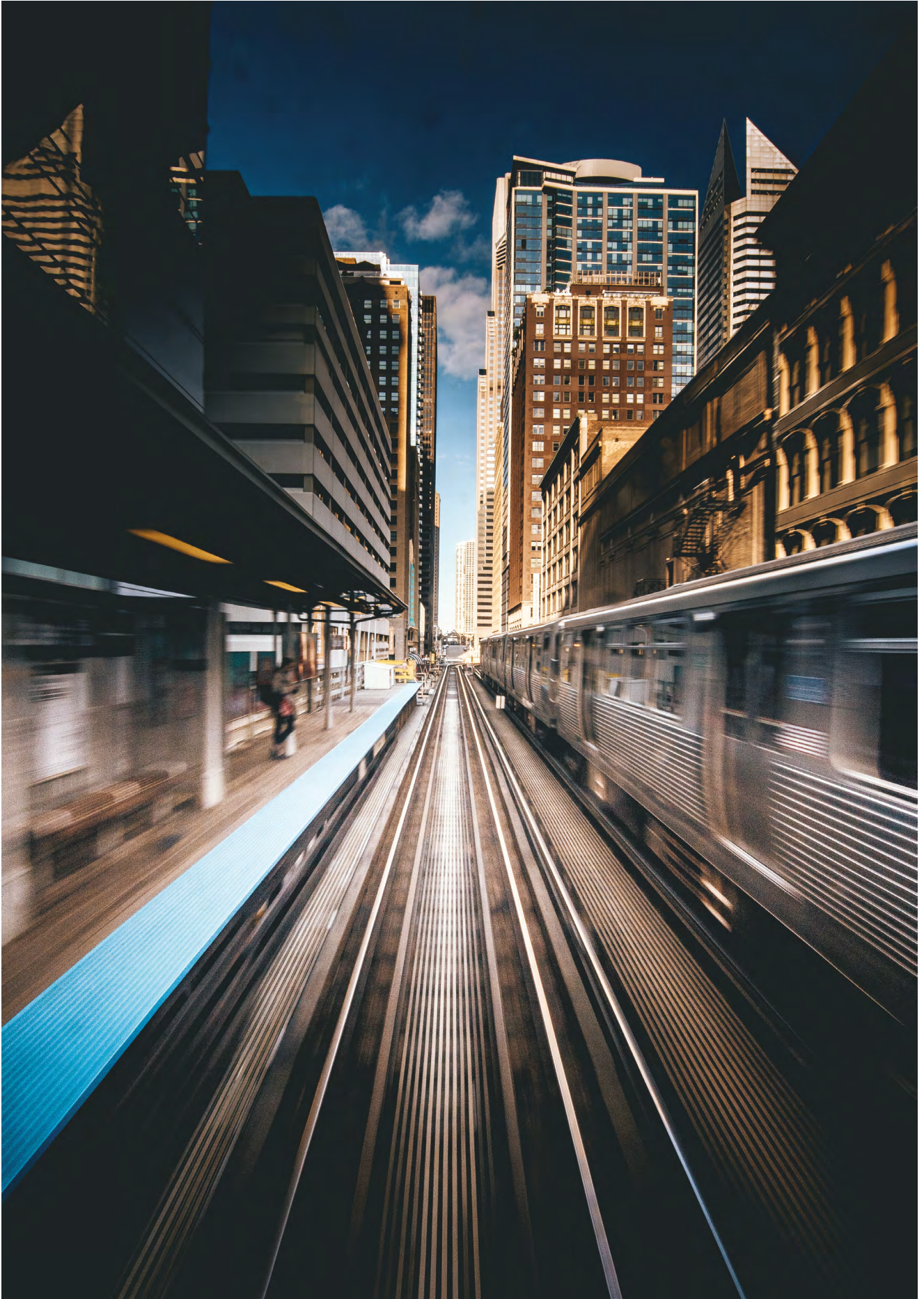
a result of UK and Australian court decisions regarding the law against penalties that allow contractual provisions to legitimately protect a broader range of interests than mere recovery of compensation for loss caused by the event triggering the abatement.

The relevant question now is whether the abatement is out of all proportion to the legitimate interests of the government that the abatement is designed to protect.

In the case of a PPP contract, the government agency's legitimate interests might include:

- additional costs incurred by government or users of the infrastructure as a result of the event triggering the abatement;
- loss of or delay in realising benefits for the community;
- lost productivity in the economy generally; and
- damage to reputation of the government.

Where the government's interests in contractual performance are intangible and difficult to quantify, as is often the case with PPP contracts, it makes no sense to limit the amount of the abatement to the loss that the relevant government agency can expect to suffer as a result of the abatement event. Indeed, difficulty in proving and quantifying loss makes it more reasonable for the parties to agree beforehand what the figure for damages should be in order to avoid the problem.







# How can PPPs be improved?

## Only use PPPs for suitable projects

As already mentioned, PPPs should only be used on suitable projects, where the PPP model is

likely to deliver a superior value for money outcome to any alternative delivery model.

## Is a PPP the right model for my project?

	YES, IF ...	NO, IF ...
 <b>Risk Allocation</b>	<p>The project involves risks which the private sector is prepared to take at a value for money price.</p> <p>An 'equity buffer' is attractive due to risk of contractor insolvency or default for which the contractor's liability is limited.</p>	<p>The project involves many significant risks which are most efficiently managed collectively (i.e. by government embracing and sharing the risks with the designer, the constructor and/or the operator/maintainer), rather than by allocating them to a particular party.</p> <p>Low risk of contractor insolvency, or default for which the contractor's liability is limited.</p>
 <b>Scope</b>	<p>It involves the provision of infrastructure and services which are likely to be required, without substantial change, for the duration of the contract.</p> <p>The cost of the project is sufficient to justify the transaction costs associated with a PPP (e.g. the capital cost exceeds AUD100 million).</p>	<p>The project involves the provision of infrastructure or services which are likely to require change during the term of the contract, and nature and timing of the change can't be predicted and priced upfront.</p> <p>The cost of the project is not sufficient to justify the additional transaction costs of the PPP.</p>
 <b>Certainty/ Flexibility</b>	<p>The government wants a high level of certainty regarding the total cost of the project at the time it contractually commits to the project.</p>	<p>The government wants maximum flexibility in relation to the development of the project, as it progresses.</p>
 <b>Complexity and Public Interest</b>	<p>The project is complex or unique, and therefore likely to benefit from the additional due diligence which private sector investors and financiers will perform.</p>	<p>The project involves public interest issues, which are best managed by traditional procurement approaches that allow government greater control.</p>

## More flexibility

The most obvious way to build greater flexibility into a PPP contract is to include in the contract a broad power to order variations, similar to the variation power found in most construction contracts.

This power allows government to direct changes to works and services that are to be provided under the contract, on the basis that government will compensate the SPV for any additional costs or loss of revenue arising from the change.

But the law ordinarily implies a limitation of reasonableness on this power. The courts have said that extent of variations ordered must be reasonable having regard to the extent of the additional work, the time at which it is ordered, and any changes in circumstances since the date of the contract. They have also said that the changes cannot go beyond what the parties ought reasonably to have contemplated at the time the contract was signed.

Like all implied terms, this implied limitation of reasonableness can be overridden by clear words to the contrary. Accordingly, if the PPP contract clearly states that the government can direct the SPV to build and/or operate a significant extension to an infrastructure facility, the courts will give effect to this. This explains why the variation power in the Canberra light rail PPP contract expressly permits the ACT Government to direct the SPV to build, operate and/or maintain all or part of an extension to Canberra light rail system. It also explains the inclusion of similar powers in the Sydney light rail PPP contract.

Having an express power to order variations of this nature only gets government so far. The real challenge for government is getting certainty and value for money on the price and other consequences of exercising the power.

Government should consider 'pre-priced variations' for changes that are likely and can be priced by tenderers during the bidding process, subject to also considering the impact that this will have on bidding costs. But pre-priced variations are only feasible if government can specify during the tender process exactly what it wants, and when it will require it. For possible future extensions of, say, a rail network, government is rarely able to provide all the details needed to obtain a fixed price for the construction, operation and maintenance of the extension during the tender process for the original PPP contract. Usually, the best it can hope to achieve is competitively tendered prices for specific elements of the extension, such as the supply of extra trains. For the remaining elements of the extension, such as the operation and maintenance of the extra trains and the extended network, pricing can only be agreed or determined once the scope of the work is settled. For these elements, all government can do is seek:

- a commitment from the SPV to negotiate the price and other consequences when government has worked out what it wants; and
- a right to have the price and other consequences determined by an independent third party if the parties can't reach agreement.

Whilst the right to have the price and other consequences determined by an independent expert seems a reasonable solution, it would be high risk for government to order a significant variation before the price is agreed or determined, as the price determined by the expert could be many millions different to what government expected. Some PPPs allow government to obtain an independent expert's determination on the price before government must finally decide whether or not to proceed, but many don't. Even if government has this right, forcing this price on the private party is rarely an attractive pathway.

One way of injecting competitive tension into the pricing of variations is to require the SPV to competitively tender the relevant work. This occurred for stage 2 of the Gold Coast light rail project, where the SPV ran a competitive tender process for the design and construction of the extension. However, as government wanted to avoid the need for customers to change vehicles at the point where the extension will join the existing network, and didn't want to incur the expense of breaking the PPP contract to enable the operation and maintenance of the extended network to be competitively tendered, it had to negotiate terms for the operation of the extension with the incumbent operator on a sole-source basis.

As previously mentioned, the main reason why changes are difficult to implement on PPPs is the large number of parties that need to agree to the change.

Government should seek to contain the ability of the debt financiers to withhold consent to variations that don't materially affect their interests. But for extensions and other variations that will materially affect the debt financiers, consent rights are inevitable. What can government do if it can't obtain the agreement or consent of a party that will be affected by such changes?

One option is for government to give itself the right to terminate the PPP contract for convenience, so that it can call for tenders for a new contract which combines the operation of the original and extended networks. But this can be an expensive right to exercise, as it typically involves paying the SPV an early termination amount sufficient to enable it to repay its debt (including the cost of unwinding interest rate hedges and the like), payout its contractors (including an amount on account of profits foregone), and provide its equity investors with their forecast return.

Another option is for government to try to include provisions in the PPP contract that give it the right to remove the non-consenting party from the transaction. For example, government could seek the right to:

- require the SPV to replace the O&M contractor;
- buy-out non-consenting debt financiers; and/or
- buy-out the equity investors.

But these rights are difficult to obtain, even if government offers to fully compensate the party being taken out, as the knock-on consequences for those remaining in the transaction could be significant.

A better option for infrastructure assets that are likely to be subjected to material changes during the term of a PPP contract, may be to consider an alternative, more flexible contracting strategy for the initial project.

### More risk sharing

A major driver of value for money on Australian PPPs has been the transfer of risk to the private sector. But would we get better outcomes if government shared more of the risk?

Since the GFC, Australian governments have ceased attempting to transfer demand risk on greenfield transport projects to the private sector. The most recent example is the North East Link project, which is being procured as a service-payment PPP, where a state-owned company will collect toll revenue.

But it is not just demand risk that has caused heavy losses on PPPs. D&C contractors have also incurred significant losses as a result of construction risks on PPPs. As a result, contractors are more fully pricing, or refusing to accept, some construction risks (such as site condition risks, contamination risks, utility adjustment risks, and change in law risks). In response, government takes more construction-related risks in order to achieve the optimal value for money risk allocation.

But this diminished private sector appetite for risk can reduce the case for doing a project as a PPP, as an alternative delivery model may achieve equivalent risk transfer without the higher financing costs.

For example, on a road project where government takes demand risk, a publicly funded design, build and maintain (DBM) contract that puts an appropriate portion of the DBM contractor's fixed maintenance fee at risk for performance can achieve a similar risk transfer in relation to the whole-of-life performance of the road as a privately financed service payment PPP, but without the higher cost of private sector finance. Although the benefit of additional due diligence and monitoring by the lenders and equity investors is lost under a DBM model (as there is no debt or equity capital at risk during the maintenance phase), it's still possible to create sufficient incentive for the contractor to optimise whole-of-life costs and perform the maintenance tasks well by ensuring an adequate portion of the DBM contractor's maintenance fee is fixed and at risk for performance.

The downside of the DBM contract, compared to a DBFM contract, is that the former provides no private sector finance buffer for government against the risk of contractor insolvency or default for which the contractor's liability is capped or excluded.

There are, of course, other delivery models for infrastructure projects that involve significant risk sharing between government and the private sector, such as alliancing and other forms of collaborative contracting. Properly applied to the right projects, these delivery models can deliver better value for money outcomes for government than privately financed PPPs.



The flip side of greater risk sharing is less cost certainty for government, as government shares the cost of dealing with shared risks that materialise after the contract is awarded.

Other PPP benefits which can be lost or reduced by adopting alliances and other contract delivery models involving greater risk sharing include:

- the benefits which the rigour of limited recourse financing brings to a project (because the sharing of significant risks by the SPV, where those risks are not then transferred by the SPV to contractors with large balance sheets, is incompatible with the raising of limited recourse project finance by the SPV); and
- the optimised whole-of-life costs, and upfront commitment of funding for maintenance to specified standards, derived from bundling maintenance services with design and construction services into a single fixed price contract; and

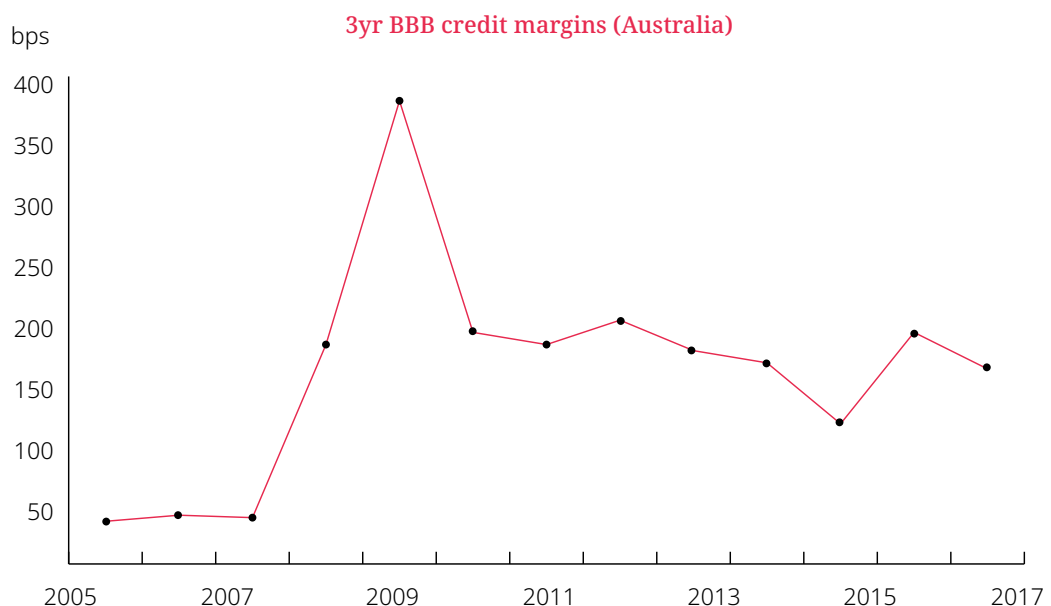
- the buffer against the risk of contractor default or insolvency provided by equity investors.

In recent years, Australia's federal government has shown increasing interest in sharing project risks in order to obtain a return on its financial contribution to a project. Traditionally, Commonwealth funding has been provided in the form of a grant to the state undertaking the project. Once the grant was paid, the federal government had no further exposure to, or interest in, the project. In more recent times, the federal government's preference has been to structure its financial contribution as a subordinated loan to the SPV (or to the relevant state), which generates interest and must be repaid. The federal government has also expressed interest in taking equity positions in projects, and guaranteeing the repayment of the project's debt in return for a fee. So it seems there is also appetite, at the federal level, for more risk sharing by government.

*Opportunities exists for government to 'partner' in a more entrepreneurial way with the private sector.*

### Minimise financing costs

As already discussed, the due diligence and project monitoring undertaken by private sector financiers is a significant driver of the superior cost and time outcomes achieved by PPPs. However, as the below graph demonstrates, the cost of private finance for PPPs was considerably higher in the years that followed the GFC than the years that preceded the GFC. This made it harder for PPPs to provide better value for money than publicly funded delivery models. The graph shows historical BBB credit margins, which is a good proxy for the credit margins on PPP debt.



Australian governments are responding by exploring and adopting funding models which minimise the amount of private finance needed to maintain the risk management disciplines which private finance brings. This can be achieved by government providing a portion of its funding earlier, thereby reducing the amount of private finance required, or the period for which it is required.

The additional or accelerated government funding can take many forms, including progress/milestone payments during the construction phase, a capital contribution at or shortly after the facility commences operations, or a service payment structure which is front ended (rather than flat).

Projects that have adopted such funding models include the Sydney Metro Northwest, Darling Harbour Live, the Sunshine Coast University Hospital, Gold Coast Rapid Transit and the Victorian Comprehensive Cancer Centre.

The impact that the form, amount and timing of any government funding will have on the risk borne by government must be carefully considered. For example, the amount of private debt carried by the SPV and the associated financing costs could also be reduced by government investing equity in the SPV, or by government becoming a lender to the SPV.

However, these approaches involve government assuming the risks borne by equity investors or lenders, which adversely affects the value for money of a PPP compared to traditional models. Government guaranteeing the repayment of the SPV's debt raises similar issues. The participation of government in

PPPs as both the procuring agency and as an equity investor or debt financier also creates conflicts of interest, as previously mentioned.

For mega projects, where lack of liquidity could force financing costs to be too high to provide value for money, deferring the requirement for underwritten debt finance until later in the bidding process can also reduce the cost of finance.

### More robust financing structures

A number of Australian PPPs have failed because, amongst other reasons such as over-optimistic revenue forecasts, the SPV's financing structure was too aggressive (i.e. too highly leveraged) and consequently could not absorb unexpected costs or revenue shortfalls.

Although the financial consequences of these failures have generally been borne by the equity investors and, in some cases, the debt financiers, government has suffered political damage from being associated with the failure.

The risk of such failures can be reduced by government encouraging bidders to adopt less aggressive financing structures. This can be done by making 'the robustness of the financing structure' one of the evaluation criteria against which bids are assessed, and by giving more weight to this criterion. However, governments need to be prepared to bear the cost of this, as it will manifest in a higher service payment.

More robust financing structures will also improve the credit rating of PPP projects and, consequently, their attractiveness as an equity investment opportunity.

### Avoid premature announcements

Recent research by the Grattan Institute challenges the conventional wisdom that scope changes are the main reason for cost overruns on infrastructure projects.<sup>2</sup> Its analysis suggests that, for transport infrastructure projects, only 11 per cent of the cost overruns are attributable to scope changes, and the remaining 89 per cent of cost overruns are due to other causes. It found the biggest culprit to be premature announcement – when a politician promises to build a road or rail line at a particular cost, often in the lead-up to an election, and in a marginal electorate.

Indeed, the analysis reveals more than one-third of cost overruns occur between the time a politician announces the estimated cost of a project, and the time it receives a formal funding commitment.

The elimination of premature announcements would improve cost outcomes across all government infrastructure projects, not just PPPs.

### Reduce transaction and bid costs

PPP procurement processes take longer than many traditional types of procurement. There are many reasons for this, including:

- the need for government to determine and articulate not only its short-term requirements, but also its long-term requirements, before calling for tenders;
- the need to shortlist bidders before requesting detailed proposals – most bidders won't invest in the significant cost of

<sup>2</sup> Marion Terrill, Cost overruns in transport infrastructure, Grattan Institute, 2016.

preparing a detailed proposal unless the field of potential bidders has been narrowed;

- the due diligence undertaken by debt and equity financiers; and
- the need to finalise contracts with a larger number of counterparties.

Consequently, the cost of bidding PPPs is significant. Some private sector participants say it is excessive.

### **Are bidding costs excessive, and is competition being affected?**

According to a review of bid costs commissioned by Infrastructure Australia in 2010<sup>3</sup>, bidders typically spend about AUD2.5 million on bids for projects with a capital value between AUD250-300 million, rising to AUD5-6 million for a AUD1 billion hospital, and AUD30 million or more for a large AUD2 billion plus economic infrastructure project. It is possible that costs have been exaggerated, as the review appears to have relied on information provided by market participants without verifying it.

*There is a good case for government to return some of this value to the losing bidders that generate it, by reimbursing a portion of their bid costs.*

The costs include success fees paid to consortium members in the winning consortium.

While these costs may be significant in absolute terms, they equate to between 0.5-1.2 per cent of project capital value (with the larger projects costing proportionately less), which was close to world's best practice at that time, so they are certainly not excessive.

There is also little, if any, evidence that these bid costs are discouraging potential bidders from bidding to an extent which is materially affecting competition and, consequently, the value for money which government is obtaining from PPP bidding processes.<sup>4</sup>

### **Value for money objectives are causing higher bidding costs**

The higher bidding costs of Australian PPPs, compared to world's best practice, are partly caused by the preference of Australian government agencies for highly tailored and optimised design solutions, and for a high level of certainty on commercial terms before a sole preferred bidder is appointed. Further bidding stages involving requests for 'best and final offers' or 'consolidated and refreshed offers' are common in Australia.

Even though the additional bidding costs, including losing bidder costs, are ultimately borne by government in the form of higher contract prices, the additional value which government achieves by finalising the key drivers of value for money in a competitive environment would almost certainly exceed the additional bidding costs.

Indeed, there is a good case for government to return some of this value to the losing bidders that generate it, by reimbursing a portion of their bid costs.

Of course, there is no case for continuing parallel negotiations with multiple bidders once it becomes certain that a clear leader has emerged. Stalking horses are neither appropriate nor fair.

### **Strategies for reducing bidding costs**

There are a number of strategies that governments can adopt to reduce bidding costs which would not affect value for money.

These include:

- avoiding premature project announcements, and allowing sufficient time for pre-tender phase preparation;
- adopting a sensible procurement timetable, and sticking to it;
- only issuing the request for detailed proposals once all necessary preparatory work has been completed, thereby minimising the need for addenda and re-bids;
- ensuring the government project team is resourced with highly capable people;
- adopting a clear and effective governance structure to facilitate quick decision-making on the government side;
- interacting effectively with bidders during the tender process, consistent with appropriate probity arrangements;
- not asking bidders to provide information which isn't needed to evaluate their capability, or to achieve certainty on commercial terms prior to the appointment of a sole preferred bidder;
- reducing the amount of bid phase design work required from bidders, and instead

<sup>3</sup> Infrastructure Australia, PPP Procurement – Review of Barriers to Competition and Efficiency in the Procurement of PPP Projects, May 2010.

<sup>4</sup> National PPP Working Group, Statement of Response to the Infrastructure Australia Report, August 2010.

placing greater reliance on the project contract requirements, including fitness for purpose warranties, the requirements of the performance specification (including minimum architectural outcomes) and the payment and abatement mechanism; and

- conducting due diligence investigations (e.g. geotechnical, contamination, heritage) for the benefit of all bidders, where this is more efficient.

### Improve pipeline

According to the Infrastructure Australia bid costs review, the most significant barrier to increased participation in the Australian PPP market is not bid costs but the stop/start nature of the project pipeline and existing and potential market participants' inability to undertake an informed assessment of the likely PPP project.

*Overcoming the infrastructure funding challenge is the key to unlocking an improved PPP pipeline.*

Participants are then reluctant to expand their teams to meet surges in demand for PPP bids because they might not be able to continue to carry the cost of an expanded team.

Australian politicians would love to announce an extensive pipeline of projects. However, funding capacity is the constraining factor, as most Australian governments will only commit to a project following the

allocation of its full capital costs within the relevant government's budgetary cycle. Accordingly, overcoming the infrastructure funding challenge is the key to unlocking an improved PPP pipeline.

Within the overall pipeline of projects that governments can afford, the PPP pipeline could be improved by ensuring, when the procurement method decision occurs, that the PPP model is adopted for those projects that are best suited to the PPP model.

There is, however, no case for giving preference to PPPs over alternative delivery models. The determination of the optimal delivery model should be unbiased.

### Sensible management of probity

All participants in PPP bidding processes want a process that is fair. Potential bidders will be reluctant to invest in a bid if they are not confident that the process will be fair. Reduced participation in bidding processes will adversely affect government's ability to achieve the best value for money outcomes.

Consortium members also wish to ensure that the participation of other members of their consortium, or related companies of those other members, in a competing consortium will not result in their confidential bid information being shared with the competing consortium or otherwise adversely affect their own competitiveness.

Finally, both the successful bidder and government wish to avoid situations that could result in a disgruntled losing bidder seeking a court order stopping the award of the contract based on the unfairness of the bidding process.

Accordingly, all parties have an interest in having adequate processes governing interactions between government and bidders, access to information and the participation of companies within competing consortia, to ensure the fairness and competitiveness of the bidding process.

That said, government also wishes to obtain the best possible bids. Workshops at which bidders can seek clarification of government's requirements and preferences, and road test potential solutions without their ideas being shared with other bidders, can greatly assist bidders in developing better proposals. These workshops can be conducted on a confidential basis with individual bidders, without being unfair to other bidders. There have been occasions, however, where such interactions have been unnecessarily restricted out of concerns they could be unfair. But fairness can be maintained by giving all bidders equal opportunity to have such interactions. Relevant information which government volunteers to one bidder should be given to all bidders, but information given to one bidder in response to a confidential question need not (unless another bidder asks a similar question, in which event it should receive an equivalent response). If meetings or workshops are held, and each bidder gets as much time with the government's project team as the bidder wants, there is no need for each bidder to get the same amount of time.

Governments need to better educate their bid managers and PPP project directors on how fruitful interactions can be managed without prejudicing the fairness of the bidding process. The guidance issued by Partnerships Victoria, and subsequently by Infrastructure Australia, on this topic is a good start.

## Cease using PSC as a pass/fail test of value for money

Australian PPP policy presently requires a Public Sector Comparator (PSC) to be developed for all PPPs as a way of testing whether the PPP provides better value for money than traditional procurement methods.

The PSC is an estimate of the whole-of-life risk adjusted cost of a project if delivered by government. Under some Australian PPP policies, a PPP can only proceed if the winning bid is priced below the PSC.

PSCs have been strongly criticised as a pass/fail test of value for money. They are inherently uncertain and can be easily manipulated to get the desired result. Indeed, the Australian experience has been that the PSC never wins. While there have been some PPP projects which have stalled during the procurement process when no bid has beaten the PSC, the PSC has been adjusted on account of errors and new information, with the result that the project has been able to proceed as a PPP. Examples include the Victorian Comprehensive Cancer Centre and the Southbank Education and Training Precinct Development Project.

The concept of public provision of the project as the alternative can also be a fiction. The days of public works departments building large infrastructure projects without the assistance of the private sector are largely gone. If government doesn't engage a consortium SPV to design, build, operate and maintain a project under a PPP, then the most likely alternative is to engage a private sector contractor to do so under a DBOM contract, or separate D&C and O&M contracts. In this context, the government's

PSC estimate of what it would cost to deliver the works and services under such contracts is unlikely to be more accurate than the prices obtained by the PPP bidders from their proposed D&C and FM contractors. The PSC estimate would need to include an allowance for government-initiated variations and other events that would entitle the contractor to payments additional to the original contract price.

Further, no other delivery model needs to justify its use by having competitively tendered bids beat a theoretical cost estimate for an alternative delivery model. Rather, theoretical cost estimates for various delivery models are used at the business case stage to determine which delivery model is likely to deliver the best value for money outcome. Having made that decision before calling for tenders, it is not revisited once competitively tendered prices have been received.

The use of the PSC as a pass/fail test of value for money was abandoned in the UK in 2003. Presently, Australia is the only country which uses the PSC in this way.

It is therefore a welcome development that the Victorian, New South Wales and Australian Capital Territory Governments have now abandoned the pass/fail test. We expect other Australian governments will follow suit.

## Use affordability limits and provide scope ladders

Of course, government should still do a detailed cost forecast to ensure that the performance outcomes it has specified are affordable. The NSW Government's new Shadow Bid Model fulfils this purpose. Government should also advise its affordability limit in the tender

documentation. If government wants the best facility possible within its affordability limit then it should also consider providing bidders with 'scope ladders' that indicate items that could be removed from the scope in priority order if bidders have difficulty in providing the full scope within the affordability limit, and additional scope items which could be added.

## Encourage 'owner-led' bids

Historically, consortia bidding for Australian PPPs have been dominated by investment banks and/or contractors who are more interested in the income they can generate out of doing the deal or the construction work, than being a long-term 'owner' of the project. And when investment banks and contractors have taken equity interests in PPP projects, it has not been uncommon for them to sell their equity interests shortly after financial close or before the completion of construction.

Governments at various times have responded by expressing a desire for more 'operator-led' consortia. It should be remembered that limited recourse financing will require the SPV to transfer most risks associated with the operation of the infrastructure facility to an operator with the expertise and balance sheet strength to manage such risks. Further, having accepted such risks, the interests of the operator will conflict with the interests of the equity investors from time to time. If the operator is performing poorly and is unable to lift its performance to an adequate level, the equity investors may wish to appoint a replacement operator.

Accordingly, government should instead be structuring its tender processes and evaluation criteria

to encourage consortia that are led by those who will be the long-term 'owners' of the project. Of all the private sector participants in PPP, it is the long-term owners whose interests will be most aligned with those of government.

Alternatively, if the government considers that it is the input and innovation of the operator that will deliver value for money, rather than the input of debt and equity investors, then a publicly funded contract between government and the operator, which avoids the need for equity and debt finance, might provide the best value for money outcome.

*Government  
should  
encourage  
'owner-led' bids.*

### Unbundling

Australian governments have encouraged PPP bids from consortia that can provide the complete package of services required for the project, including financing, construction, maintenance and operations or service provision. In doing so, governments are not able to cherry-pick the best components from competing bids. The bidder that offers the best service solution may be rejected in favour of another bidder who offers the best overall value for money because it has a cheaper financing solution.

It is possible government could achieve better value for money by unbundling the PPP, and separately tendering one or more of the construction, maintenance or financing packages after it has appointed its preferred private sector partner for the project. Unbundling would also be welcomed by contractors, as it would avoid the need for them to form themselves into consortia before they can bid for the package of works they are interested in.

However, unbundling a PPP is not without its own difficulties. For instance, it requires government to accept interface risk between the various packages. Moreover, if the owners and service providers are appointed ahead of the lenders, the rigour which the lenders bring to the assessment of project risks does not occur until after the owners and service providers have been appointed. The lenders may identify risks which have been inadequately assessed or allocated, resulting in the reopening of proposed commercial terms.

Perhaps this risk could be addressed by requiring a portion of the debt to be fully underwritten at the time the owners are appointed, with a separate debt funding competition for the balance of the debt to follow. But the underwriting financiers would need to be recompensed for their additional effort. Lack of debt financier engagement during the bid development phase has been one downside of separate debt funding competitions in the UK.

Similarly, proposals to have an equity funding competition after the appointment of a preferred bidder will discourage equity investors from incurring the expense of developing a proposal to that point, as the return they receive through a forced sale of a portion of the equity may not provide an adequate return on the bid development costs which they have risked.

For many potential PPPs, the downsides of separately tendering the construction, maintenance or financing packages will often outweigh the potential advantages. But there could be other reasons that justify a more unbundled approach, such as the need for greater flexibility during the operation phase.

One area where we have seen unbundling on recent Australian PPP projects is in the construction works, with packages of construction work which might otherwise have been included in the PPP have instead been delivered under separate publicly funded contracts. Recent examples include:

- the Sydney Metro Northwest, where the design and construction of the tunnel and underground station boxes was let under one contract; the design and construction of the viaduct and above ground station platforms was let under a second contract; and the design and construction of the trains, rail systems, station fit-out and the operation and maintenance of the entire system was let as a PPP under a third contract;

- the Melbourne Metro, where:
  - the tunnelling work, underground stations, station fit-out, mechanical and electrical systems and specific operations and maintenance services for this infrastructure are being delivered under an availability based PPP;
  - the works at the eastern and western portals will be performed under a second alliance contract; and
  - the rail systems will be designed, installed and commissioned under a third alliance contract.

The advantages and disadvantages of separating works into separate contracts are summarised in the table.

ADVANTAGES	DISADVANTAGES
<p><b>Construction can commence more quickly:</b></p> <p>By separating certain civil works from the PPP works, government can award contracts and commence construction activities earlier than would have been the case if all works are included in a single PPP contract.</p>	<p><b>Interface risk:</b></p> <p>Unbundling creates interface risks that government needs to manage. For example, if an asset is designed and constructed by one contractor, but then operated and maintained by another, the operator/maintainer will want warranties in relation to the design and construction of the asset. While it may be possible for government to transfer to the operator/maintainer the warranties given by the D&amp;C contractor, it will often be necessary for the government to accept liability to the operator/maintainer for any defects in the work performed by the D&amp;C contractor.</p> <p>Other key interface considerations include the scope and timing requirements of each contract, including contracts that may yet to be tendered. These will need to be carefully managed from the outset to avoid situations arising where the government ends up liable to the contractor(s) to whom certain promises are made and then left to recover from the defaulting contractor.</p>
<p><b>Better value for money:</b></p> <p>Separating risky work from the less risky work, and delivering the risky work under an alliance contract, can deliver a better value for money outcome for government. This enables characteristics of the works in each package to be tailored and avoids the need for pricing contingencies in respect of risks that may or may not occur. An example of this is the ability to introduce an incentivised target cost model for risky works which cannot be efficiently priced via a lump sum.</p>	<p><b>Caps on liability:</b></p> <p>Contractors will typically cap their liability under a contract by reference to the contract price. If the value of the works under a particular contract is quite small relative to the value of the project as a whole, the maximum potential liability of the contractor for late or defective performance of works that are critical to the overall success of the project might not be sufficient to make any privately financed components of the project 'bankable'. It was for this reason that TfNSW needed to accept liability to its Sydney Metro Northwest PPP contractor for late or defective work by TfNSW's tunnelling or viaduct contractors.</p>

ADVANTAGES	DISADVANTAGES
<p><b>More operator-focussed PPP consortia:</b></p> <p>The high value of design and construction works, relative to the value of the operation and maintenance activities, often results in the D&amp;C contractors having significant influence within consortia bidding for PPPs. Removing significant civil works from a PPP contract can help to even things up, resulting in consortia that are more operations-focussed, which is often what government is seeking.</p>	<p><b>Design development risk:</b></p> <p>The design for the separate works will often not be finalised at the time the PPP contract is awarded. The separate contractor will usually be entitled to make changes to the design as it is developed, so long as the design still meets the performance requirements for the relevant works. These permitted design changes can, however, have a significant impact on the costs that the PPP contractor will incur in fulfilling its obligations with respect to the PPP works.</p>
<p><b>Market capacity:</b></p> <p>By publicly funding the design and construction of certain works, the value of the works that need to be privately financed can be reduced. This can be an important consideration if the overall project value would otherwise be such that the finance market might not have sufficient capacity to fully underwrite finance for, say, 3 separate bids.</p>	<p><b>Systems integration risk:</b></p> <p>On projects that involve the integration of multiple new systems, or where legacy systems and new systems interact. Is there a single organisation with clear accountability for managing and mitigating system integration risks? Does that organisation have the technical and contractual rights to make trade-off decisions and direct the system suppliers and other contractors in relation to the integration task? These decisions can conflict with the interests of individual suppliers and contractors, but are often necessary for the overall success of the project.</p>
<p><b>De-risking the project:</b></p> <p>Separating the early works contracts can help to de-risk the primary contract packages, including by appropriately allocating the risks between the contractors, and delivering overall programme benefits.</p>	<p><b>Bigger government project teams:</b></p> <p>To provide the resources needed to manage the contract interface risks, and the different forms of contract. The cost of this team is borne by taxpayers. Once created, the team has a vested interest in advocating for disaggregated contract models for future project phases, to retain the need for their positions in the organisation, perpetuating the cost.</p>
	<p><b>Silos emerging within the government project team:</b></p> <p>The contract managers for each contract tend to focus on the time, cost and quality results under 'their' contract, rather than for the project as a whole.</p>



## Expand scope of services

The Partnerships Victoria PPP policy introduced in 2000 (and the PPP policies of other Australian governments that soon followed) drew a distinction between 'core services', such as the clinical services provided at hospitals, and 'non-core services' (otherwise known as 'ancillary' or 'soft' services) such as laundry, cleaning, and catering. The policy dictated that non-core services could be delivered by the private sector, but that responsibility for the delivery of the core services must remain with government.

However, conservative Australian governments have revisited this policy in more recent times and entered into PPPs that include private sector provision of core services. Examples include the Ravenhall Prison in Victoria, the Northern Beaches Hospital in Sydney, and the new prison in Grafton. It remains to be seen whether these new generation social infrastructure PPPs can deliver consistent long-term infrastructure service outcomes.

Perhaps we will see further outsourcing of what were once core public services, in the pursuit of better service and value for money outcomes. For example, why shouldn't school PPPs require the private sector to also provide teaching services? The Australian private school sector has a strong track record in delivering high-quality teaching services. Why don't state governments measure the quality of the teaching services delivered, rather than the quality of the building environment in which the services are delivered?

## Focus on outcomes

Recent Australian PPP deals have seen government increasingly focusing on specifying the outcomes it is wanting to achieve rather than the inputs, and building the payment regime around the achievement of these outcomes. Whilst this can create some challenges for the private sector in terms of pricing risks that are out of its control that influence outcomes, it is a trend that we expect to continue.

## Greater transparency

Australian governments have taken many positive steps to improve transparency of government decision making.

For instance:

- the federal government, and a number of state governments, have established specialist advisory bodies to assess project business cases and help government to prioritise the projects that should receive government support. These bodies typically publish briefs or reports on the projects they assess, including high level information on the business case;
- request for tender documents typically include details of the evaluation criteria government will use to select a winner;
- the procuring agency will usually conduct interactive meetings to enable bidders to gain a better understanding of government's objectives and requirements;
- debriefings are usually offered to unsuccessful bidders, to help them understand why they lost and how they could do better next time;

- the contract with the successful tender is often published, or key details including the contract price are disclosed. Any subsequent contract amendments are also usually published; and
- project summaries are typically published that detail the government's potential liabilities.

Even so, there is more that Australian governments could do to improve transparency. For example:

- detailed business cases for major government infrastructure projects are not always published;
- request for tender documents generally don't reveal the relative importance that government attaches to the evaluation criteria;
- the information provided to bidders at interactive meetings and debriefs is often constrained by a desire to minimize the risk of the selection process being challenged;
- claims by contractors for extra money under the contract are often settled out of court on confidential terms that can't be publicly scrutinised; and
- information on how a project has performed against the cost estimates and anticipated outcomes or benefits is rarely published, at all or in a form that can be easily understood.

Of course, there are good reasons why complete transparency is not possible or wise, which need to be respected. For example, there is a public interest in disputes being settled without tying up court resources, and the ability to keep the settlement terms confidential can help achieve this.

But it is rarely the private sector parties that want to keep settlement terms confidential.

Improved transparency would lead to more informed bids, the best bid being selected and, ultimately, better outcomes for government and its taxpayers.

### Disclose weightings for evaluation criteria

Australian governments advise bidders of the evaluation criteria against which PPP bids will be assessed, but they do not disclose the relative importance (or weightings) of the non-price evaluation criteria.

Why Australian governments do not want bidders to know the relative importance of the non-price evaluation criteria is puzzling, as government is more likely to get better proposals if it tells bidders what it prefers. One reason for this could be that it may invite criticism of the integrity of the bid evaluation process as being non-transparent.

The European experience encourages the disclosure of evaluation weightings. For example, it is a key principle of the Treaty of the Functioning of the European Union that there be transparency in the bid evaluation process. This has been interpreted by governments and the courts as "best practice" to specifically advise bidders in advance of the objective criteria their bid will be assessed against. Under EU Public Contracts Regulations, weightings must be disclosed as an exact percentage or range, unless it is not possible on objective grounds to do so, in which case criteria may be identified in descending order of importance.

This means, in practical terms, that bidders are provided with a formula as part of the tender process.

Closer to home, the New Zealand procurement process specifically includes a requirement for government to indicate the relative importance of each criterion either by including weightings or by ranking criteria in priority order.

### Project governance

Australia has seen many different governance arrangements for PPP projects.

Some have been procured by the government agency responsible for delivering the type of services that the PPP will deliver (examples include the Waratah train procured by RailCorp, and the Sydney toll roads (excluding WestConnex) procured by Roads and Maritime Services).

Others have been procured by project specific authorities established for the sole purpose of facilitating the project (for example, the Melbourne City Link Project, procured by the Melbourne City Link Authority; and the WestConnex project, procured by the Sydney Motorway Company). Some of these authorities continue to manage the project contracts during the operations phase (for example, the AustralAsia Railway Project between Adelaide and Darwin, which continues to be administered by the AustralAsia Railway Corporation established by the South Australian and Northern Territory Governments).

Others have transferred the contract management function following completion of construction

to the government agency usually responsible for delivering the relevant services. For example, the contracts for Eastlink and Peninsula Link are now administered by VicRoads, after having been awarded and managed during the delivery phase by the Linking Melbourne Authority.

State Treasury Departments have controlled the development of PPP policy, and developed specialist expertise in the structuring, negotiation and administration of PPP contracts. More recently, Infrastructure NSW has developed centralised expertise in the procurement and delivery of PPPs.

There presently seems to be a preference for more centralised PPP procurement authorities. This approach facilitates the development of public sector expertise in the procurement of PPPs, as it provides opportunities for public sector procurement specialists to apply lessons learned to subsequent projects and to further develop their skills. A downside, however, is that government agencies that take over the administration of the contracts once the procurement and construction phases have been completed find it difficult to understand and master the complex contractual arrangements which they inherit. There is considerable value in government achieving continuity of expertise across the procurement, delivery and operation phases of a project. The Waratah train PPP is a rare example of a project where the government's project director has been intimately involved in each of the procurement, delivery and operation phases.

Contract management plans and contract administration manuals should be developed for all PPP projects. The contract administration manual should evolve as the project moves through the design, construction and operation phases. Experienced government project directors will also ensure that their budget will allow them to continue to access the support of professional advisors.

Post-implementation reviews should also be conducted in accordance with the National PPP Policy and Guidelines. Infrastructure Australia is presently advocating reforms which would see post-completion reviews become a requirement for federal infrastructure funding. Such reviews should be transparent to the public so that both government and community can learn from past experience and have confidence in a robust and transparent process for developing and monitoring significant infrastructure PPPs.

### Better dispute resolution procedures

Most disputed claims on PPPs are initiated by one of the SPV's contractors or sub-contractors. The D&C contract and the O&M contract will typically contain 'linked-claim' provisions that:

- require the SPV, if it receives a claim from its contractor that arises out of an event that entitles the SPV to bring a corresponding claim against government, to advance the corresponding claim against government, and comply with the directions of the relevant contractor in respect of the conduct of the corresponding claim;
- suspend the contractor's right to pursue its claim against the SPV, so long as the SPV is complying with the directions

of the contractor in respect of the corresponding claim against government; and

- limit the SPV's liability upon its contractor's claim to the amount the SPV can recover from government under the PPP contract, and indemnify the SPV against any costs it incurs in prosecuting the corresponding claim against government, but only if the SPV complies with the directions of the relevant contractor in respect of the corresponding claim.

The PPP contract will also often contain a provision dealing with linked-claims that requires the SPV to ensure that any claims initiated by its contractors are made in good faith and are not in excess of their entitlements, and to advise government in writing of how the SPV responds to the contractor claim. Often, government will also refuse to engage directly with the contractor in relation to the claim, on the basis that government's contract is with the SPV, and it is up to the SPV to manage its contractors.

Unfortunately, these arrangements leave the SPV in an invidious position. If it simply makes a corresponding claim against government it could find itself in breach of its obligations under the PPP contract, especially if it considers its contractor's claim could be in excess of the contractor's entitlement. But challenging its contractor's claim could undermine its ability to maintain a corresponding claim against government.

The SPV rarely has equity reserves needed to pay liabilities to its contractors, in excess of those that were forecast. Accordingly, it needs the benefit of the limitation of

liability and indemnity in the linked-claim clause in its downstream contracts. Without these, the SPV could end up insolvent, if its liability to its contractor is determined to be greater than government's liability to the SPV – an entirely plausible outcome if the disputes under each contract are determined separately. Indeed, its legal costs alone could send it to the wall, if not paid by the contractor. Accordingly, it has no choice but to advance the corresponding claim, even if it considers the claim to be beyond the contractor's entitlement.

One solution sometimes suggested is for the SPV to be more strongly capitalised, to enable it to cover liabilities it incurs to its contractors as a result of actions it takes independently of government to manage its contractors. But the liabilities it could incur if it wrongly delays its D&C contractor could be massive. And more equity relative to debt would have increased the SPV's cost of finance, resulting in it requiring a higher service payment or capital contribution from government. This could be the difference between winning and losing the bidding process for the project. Would government really have been prepared to pay significantly more, to contract with a SPV that has the capacity to manage its contractors independently of government? Usually not.

A better solution is to accept the pass-through nature of the SPV as the inevitable consequence of a cost effective, limited recourse debt structure – with the rigour and risk transfer it brings to a PPP project – and to develop a dispute resolution process that brings together the parties with the real interest in the outcome of the dispute (i.e. government and the relevant contractor).

A three-party CEO negotiation process, with government and the relevant contractor leading the discussions, and the SPV mostly observing, would be a good start. Even better would be a Dispute Board that facilitates regular discussions between the 3 parties, with a view to helping the parties to resolve their issues amicably. Similarly, for disputes that can't be resolved by agreement, contractual requirements to consolidate formal legal proceedings (whether arbitration, expert determination or court litigation) in respect of linked-claims would be a more pragmatic approach to the resolution of these disputes.

For disputes that also involve others, such as a subcontractor to the D&C or O&M contractor, the same principles would apply – involve them in the negotiations or discussions aimed at amicably resolving the issue, and require separate legal proceedings to be consolidated.

## Dispute boards

Dispute Boards, which are also referred to in Australia as Dispute Avoidance Boards or Dispute Resolution Boards, have established themselves as very effective mechanisms for the avoidance and resolution of disputes on major infrastructure projects. They have recently been adopted on a number of Australian PPPs, the first being the Sydney Metro Northwest.

### WHAT ARE DISPUTE BOARDS AND WHY DO THEY WORK?

Australian Dispute Boards usually comprise three independent people, appointed by the owner and the contractor at the commencement of a project to assist with the resolution of issues which arise during the construction of the project. The Dispute Board

members will typically have between them significant experience in the delivery of similar projects, and the resolution of disputes arising out of such projects.

The combined expertise of the Dispute Board members is typically a blend of engineering, project management and legal expertise. They are typically 'grey hairs' that are well respected by the parties and thus able to ask questions and express views which will be listened to, carefully considered and actioned.

The first, and most important, function of the Dispute Board is dispute avoidance. The Dispute Board meets with the parties regularly during the delivery of a project to discuss emerging issues and help the parties to resolve them on a consensual basis. This is akin to proactive mediation, and has been highly successful in resolving issues on major projects before they become intractable disputes.

Alongside this is a decision-making function. Either party to a dispute can refer it to the Dispute Board for a written determination. The Dispute Board's determination can be final and binding, interim-binding or non-binding, depending on what the parties agree when they establish the Dispute Board. In Australia, most Dispute Board determinations are interim-binding, i.e. binding unless and until overturned by subsequent court or arbitral proceedings.

If the Dispute Board's determination is not final and binding, the parties will usually agree that it is to be 'with prejudice', i.e. it can be submitted in any subsequent court or arbitral proceedings. Doing so is thought to reduce the likelihood of subsequent proceedings, as a court or arbitrator will likely pause for thought before departing from the determination

of a wise group of people with detailed knowledge of a project's history and the matters in dispute.

### WHAT DOES IT COST?

While there is a cost associated with regular Dispute Board meetings throughout the construction process, the cost is low compared to the value that Dispute Boards are delivering. The base cost of a Dispute Board in Australia is 0.1-0.2 per cent of the total project cost on a project over AUD100 million. That equates to between AUD100,000 and AUD200,000 for a AUD100 million plus project. The base cost doesn't increase much as the project value increases.

On the value side, the Dispute Resolution Board Foundation (DRBF) reports that 98 per cent of projects using Dispute Boards (now numbering well over 2700 internationally) have been completed without reference beyond the Dispute Board.

The Australian industry statistics (as at July 2014) provided by the DRBF are impressive:

- more than 80 per cent of Dispute Board projects have finished on or ahead of time compared to the industry norm of well under 60 per cent for similar value projects without Dispute Boards. The majority of Dispute Board projects have been completed within the owner's budget;
- less than 5 per cent of Dispute Board projects have been more than 3 months late, compared to the industry norm of more than 25 per cent for similar value projects without Dispute Boards;
- just under 80 per cent have been completed without a single referral to the Dispute Board for

a decision, compared with an industry norm for projects without Dispute Boards of less than half that percentage completed without off-site dispute resolution processes being invoked.

#### USING DISPUTE BOARDS ON PPPS

Dispute Boards appear well-suited to PPPs due to their size and complexity, and there is no reason why the success of Dispute Boards in Australia cannot be replicated on PPPs. Dispute Boards are especially attractive to the government in a PPP because the government bears significant political risk in the case of a public dispute.

The major complicating factor in adapting Dispute Boards to PPPs is the contractual structure of a PPP. As already mentioned, PPPs differ from traditional construction contracts in several key respects. In the Dispute Board context, relevant differences include:

- the owner, in this case the relevant government agency, enters into a PPP contract with the SPV, who in turn enters into a traditional D&C contract with a D&C contractor, and an O&M contract with an O&M contractor;
- the D&C and O&M contracts will typically reflect the risk allocation in the PPP contract, and will state that the relevant contractor is only entitled to additional money from the SPV if the SPV can recover such additional money from the government agency under the PPP contract. The D&C and O&M contracts will also typically include the 'linked-claim' provisions discussed above; and
- the loan agreement between the SPV and its debt financiers will typically require the SPV to notify the debt financiers of any claims made by the D&C or O&M

contractor for extra time and/or money, and will prohibit the SPV from settling such claims without the consent of the debt financiers.

The result is that PPP disputes will often be between parties without any direct contractual relationship. Even though PPPs aim to avoid a contractual link between government and contractors, a contractual relationship must be established in order to found a Dispute Board with power to issue binding determinations.

The first two PPP Dispute Boards in Australia have provided models of how this contractual structure can accommodate a Dispute Board.

*There is no reason why the success of dispute boards on Australian infrastructure projects cannot be replicated on PPP projects.*

#### THE FIRST PPP DISPUTE BOARD

The first PPP in Australia to adopt a Dispute Board was the Sydney Metro Northwest Operations, Trains and Systems (OTS) contract.

While giving the Dispute Board a decision-making function allows it to resolve disputes which can't be settled amicably, it does have a downside. The downside is that the determination of disputes usually creates a winner and a loser. Losers often resent the

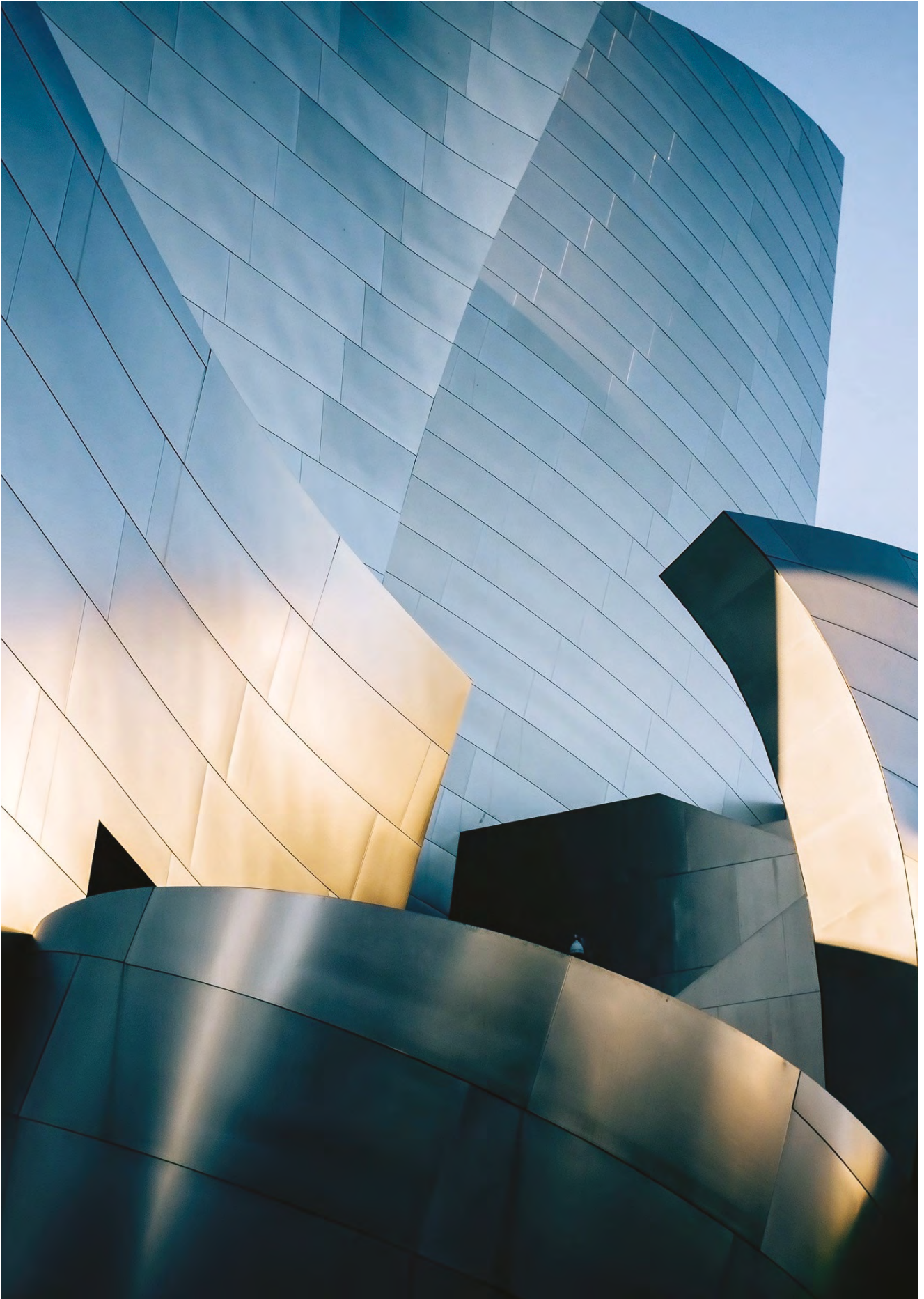
determination and lose respect for those who made it. This loss of respect for the Dispute Board can undermine the Dispute Board's ongoing dispute avoidance role.

The parties on the Sydney Metro PPP addressed this problem by removing the decision-making function from the Dispute Board. Instead, any determinations were to be outsourced to an independent expert agreed upon by the parties or, failing agreement, selected by the Dispute Board.

This approach avoids the risk of the Dispute Board being tainted by determinations or decisions which one party will almost certainly consider to be incorrect, and thereby becoming ineffective in its dispute avoidance role.

The Dispute Board Agreement for each PPP is between the government agency (TfNSW), the SPV and the Dispute Board members only. The D&C contractor, the O&M contractor and the debt financiers are not parties to the Dispute Board Agreement. However, in both cases these other parties were aware of, and effectively endorsed, the composition of the Dispute Board.

Importantly, the Sydney Metro PPP contract requires the SPV to ensure that the D&C contractor and O&M contractor attend Dispute Board meetings, if TfNSW requests this. It also permits their attendance at the SPV's request, in the ordinary course. A representative of the debt financiers must also attend Dispute Board meetings, if requested by TfNSW. The attendance of all relevant parties at Dispute Board meetings facilitates the consensual resolution of any pass-through claims.



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