

Picking Winners: A Review of Infrastructure Australia

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Abstract

It is rare to see agreement on any transport issue: every discussion seems to quickly split along modal lines, or a three way tussle between economic, social and environmental impacts and outcomes. The exception, where universal consensus would appear to be the norm, is the view that we, as a society, are very poor ‘pickers’ when it comes to transport investment.

The concern that Australia is not getting value for money from its infrastructure investment led to the establishment of Infrastructure Australia (IA) in 2008. Similar initiatives have now been adopted by at least four Australian state governments. There are now more organisations and resources than ever being applied to the planning and development of major transport initiatives.

This paper examines the impact IA has had on shaping urban transport investment and priorities over its eight-year history. It examines IA’s Infrastructure’s Priority List (IPL) and finds that IA has largely failed to establish a pipeline of soundly based transport investment options. Significantly, we can observe that major urban transport projects appear to proceed independently of any IA endorsement. The paper suggests there are a number of political and technical factors that make picking a successful transport investment a fraught, if not, intractable problem.

1. Introduction

Concerns over project selection are long standing and the establishment of Infrastructure Australia (IA) in 2008 was intended to improve the nation’s ability to identify and fund the projects of greatest importance (Australian National Audit Office 2010). The need for an independent, permanent infrastructure advisor appears to have wide spread political appeal as similar models have now been adopted in at least four states (NSW, Victoria, Tasmania and Queensland). It is timely to reflect on IA’s performance to date given these additional resources and new governance arrangements that are now in place. Failures such as the East West Link in Melbourne suggest the selection of projects on an objective and transparent basis remains a goal rather than a reality.

The cancelation of the Victorian East West Link highlights the cost of poor project selection. The Victorian Auditor General recently concluded that “the state will have incurred in excess of \$1.1 billion in costs on the project with little tangible benefit” (2015, p. vii). The Auditor noted that had the project continued, the total cost would have been in excess of \$22.8 billion (in nominal terms), but “there was little assurance that the prioritisation of significant state resources to this project was soundly based” (p. x). Examples like the East West Link give rise to a widely held

view that the state is a poor servant in matters of project selection (for example, Commonwealth of Australia 2014b; Productivity Commission 2014; Terrill, Emslie & Coates 2016).

This paper has been prepared to inform a larger research program investigating how major urban transport projects are selected. A necessary step in this research is to document the current selection methodologies and processes. This paper examines the role of IA in the selection process.

The next section outlines the theoretical background that frames this research and highlights the tension between objective decision-making and the exercise of power that ultimately determines these decisions (see for example, Flyvbjerg 1998; Hall 1982). The third section describes IA's role as the Commonwealth's key advisor for assessing and prioritising projects of national significance and provides a brief history of the organisation from its establishment in 2008, through the 2014 reforms and up to the present day. The fourth section critically examines IA's assessment of the nation's key challenges before and after the 2014 reforms. I suggest the changes in priorities following the reforms are more closely linked to changes in Federal politics rather than any underlying change in Australia's infrastructure needs. To illustrate this point the fifth section examines the case of the East West Link project to highlight how those in power prevent an informed debate by controlling the release of information whilst simultaneously promoting the high ideals of objective and transparent decision-making (Dodson et al. 2014). Finally the paper concludes with a discussion of the emerging themes and considers suggestions for further reforms.

2. Theoretical Context

IA is required to place great weight on objective decision-making that simultaneously considers social, environmental and economic objectives. The Infrastructure Australia Act defines IA objectives as follows:

Infrastructure Australia's objectives are to:

- *increase the economic standard of living for Australians;*
- *achieve environmental sustainability and reduced greenhouse gas emissions;*
- *and*
- *improve social outcomes, quality of life and reduced social disadvantage in our cities and regions.*

(Infrastructure Australia 2008, p. 8)

Finding solutions that will deliver all three criteria is challenging. Rittel & Webber (1973) argue highway planning is a type of "wicked" problem where "policies that respond to social problems cannot be meaningfully correct or false". Rittel & Webber argue that searching for optimal solutions to these "wicked" problems is a Sisyphean undertaking. It is perhaps for this reason that politics seemingly becomes the primary means of selection. Hall (1982) has described the decision making process in terms of the interactions or conflicts between community, bureaucratic and political actors, in his examination of "great planning disasters". In a similar vein, Altshuler and Lunderoff (2003) have examined the politics underpinning American transport development over the later half of the 20th century. A recent review of Australia's road funding allocations also suggests that political considerations are more influential in project selection than objective analysis (Terrill, Emslie & Coates 2016).

These authors find limited evidence of traditional transport planning defining the ultimate solution. In terms of traditional transport planning, a typical “problem” starts with a traffic forecast indicating growth that will lead to congestion requiring more road, transit or airport capacity. However, the process seems to quickly move beyond the remit and ownership of the planners to “public entrepreneurs” who are the public officials taking “the lead in crafting strategies, tactics and plans” to ultimately secure project approval and funding (Altershuler & Luberoff 2003, p. 224). It would seem, that in terms of the final outcomes, the implemented projects are not necessarily those with the highest economic, environment or social returns but those that best align with the interests of key members of the relevant local, state and federal legislatures (Flyvbjerg 2005).

The genesis of “rational” transport planning can be traced back to the late 1950s (Banister 2002) when a systems engineering methodology was adopted for the Chicago Area Transportation Study (State of Illinois 1959). Since then cost benefit analysis has been further developed and promoted as the most appropriate mechanism to evaluate and select projects (see for example, Dobes 2008; Dobes & Bennett 2010; Gwee, Currie & Stanley 2008; Nairn 1989; Stopher & Stanley 2014; Tsolakis, Naudé & Evans 2008). However, the longevity of this “rational” methodology is perhaps surprising since it has seemingly fails to consistently identify those projects that will be ultimately be implemented. For example, the CATS highway expansion recommendations were quickly abandoned (McDonald 1988) establishing a trend that continues to this day. Also, in Australia, Bray (2009) found little connection between the plans produced and the projects actually implemented. Therefore there is a growing concern in Australia and elsewhere that evaluations are being used to justify projects retrospectively and that project selection is driven by political considerations facilitated by public entrepreneurs (see for example, Douglas & Brooker 2013; Mees 2010; Norley 2011; Stone 2009; Tanko & Burke 2013).

Theoretical problems with traditional rational planning have been long known. Lindblom (1959), for example, outlined the significant challenge facing rational decision-making based on comprehensive “root and branch” analysis as implied by the rational model. These challenges include:

- resource limitations restricting the number and range of options that can be considered and
- an ability to fully assess the implications of materially different options.

However, perhaps the greatest challenge to rational planning is that it conflicts with the exercise of power. Flyvbjerg (1998) argues that those in power define rationality thereby confusing rationalisation with rationality. Flyvbjerg (2005) posits a “Machiavellian” selection process where proponents vested in a specific project operate to a formula:

$$\begin{aligned}
 & \textit{Under-Estimate Costs} + \textit{Over-Estimate Revenue} \\
 & + \textit{Under-Estimated Environmental Impacts} \\
 & + \textit{Over-Valued Economic Development Effects} \\
 & = \textit{Project Approval}
 \end{aligned}$$

Given this, I approach this review assuming there is a causal relationship between the provision of transport and the development of cities, and that planners have a role in understanding these relationships and to leverage this understanding to guide the selection of major projects (Alexander 2000; Næss 2016). To explore the decision-making process the review is framed using the phronetic planning research

advocated by Flyvbjerg (2004) that seeks to understand the planning process within a context of power relationships.

3. Infrastructure Australia

3.1. Infrastructure within the Australian Commonwealth

Australia is a federation comprising six states and two main territories. The States (by constitution) and territories (by delegation) are responsible for land use and transport planning matters, including identifying the need for new transport infrastructure. The Commonwealth's role limited is limited to matters affecting interstate movement such as the national rail network. This division of roles results in the States holding more than 90% of the nation's non-financial assets (\$1.3 trillion of compared to the Commonwealth's \$0.11 trillion) (Commonwealth of Australia 2014c, p. ii).

The responsibility for funding for the majority of major transport projects (and many other services) also rests with the States while the Commonwealth collects the majority of the nation's tax income. This results in a fiscal imbalance requiring annual grants from the Commonwealth to the States of around \$96Bn per annum of which approximately \$5Bn per annum is for the provision of infrastructure (Commonwealth of Australia 2014b, p. 22). While the States are encouraged to seek Commonwealth financial assistance through programs such as the Nation Building Program the amount provided, if any, is at the discretion of the Federal government (Commonwealth of Australia 2014c, p. v).

In 2008 IA summarised the problems affecting the allocation of infrastructure funding prior to its establishment as:

- poor definition of the roles between the three tiers of government (local government is responsible for provision of minor roads and other infrastructure);
- lack of accountability and transparency for the decisions made; and,
- poor planning, misguided regulation and distorted investment patterns.

In short, there was a scepticism expressed about the process of project selection, and a lack of confidence that the nation was realising the benefits intended through infrastructure investment. It was due to these concerns that IA was established in 2008 as the Commonwealth Government's principal infrastructure advisor (Infrastructure Australia 2008).

3.2. Infrastructure Australia 2008-2014

The genesis of IA can be traced back to the 1996 election campaign when the Liberal/National coalition announced its intention to establish a National Infrastructure Council. This body never came into being but it set the scene for the Labor opposition to promise in 2005 that it would establish IA if returned to office. Labor won office in 2007 and the Infrastructure Australia Act (the Act) subsequently came into effect on 9 April 2008 (Australian National Audit Office 2010).

IA was established as an advisory council to provide "advice to the Minister, Commonwealth, State, Territory and local governments, investors in infrastructure and owners of infrastructure on matters relating to infrastructure" (Commonwealth of

Australia 2008, s5 (1)). The Council comprised a Chair and eight members appointed by the Commonwealth and three members nominated by agreement between the States and Territories. All council members were appointed on a part time basis for a period of three years. The Council was supported by the new positions of Infrastructure Coordinator and the Office of Infrastructure Coordination established within the Infrastructure, Transport, Regional Development and Local Government portfolio.

In its first year IA was required to complete two key tasks. The first was to undertake an audit of the nation's infrastructure for the purposes of identifying the key priority areas for investment. The second was to establish an Infrastructure Priority List (IPL) nominating a range of projects that would address the identified needs. IA was initially directed to complete this audit by the end of 2008 and to develop its first IPL by March 2009 (Australian National Audit Office 2010).

However, in the period leading up to IA's first report the Government was dealing with the economic slowdown arising from the Global Financial Crisis; the Australian government was urgently looking for projects that would stimulate the economy. Therefore the Council Of Australian Governments (COAG) called for IA's recommendations to be brought forward to December 2008 shortening an already ambitious timeline. IA met the challenge and published '*A Report to the Council of Australian Governments*' in December 2008 (Australian National Audit Office 2010).

The 2008 report was based on IA's own research as well as the input from more than six hundred submissions concerning the Nation's infrastructure challenges including more than a thousand suggested projects. IA's assessment of these projects found very few were sufficiently developed or appropriately aligned with the identified priorities. Given the circumstances, prioritisation quickly shifted from a focus on the projects with the highest returns to identifying those projects that were "ready to proceed". Nine projects were found to meet IA's criteria while further twenty-eight projects were deemed to have "real potential". After receiving IA's advice the Commonwealth proceeded to fund seventeen projects including seven projects IA assessed as "ready to proceed" projects and a further ten "real potential" projects including six for which IA advised "there was insufficient evidence to support the economic viability of the project" (Australian National Audit Office 2010, p. 18).

From 2009 through 2013 IA provided an annual report outlining its assessment of the nation's infrastructure priorities and an updated Infrastructure Priority List. In the five year period from 2008 to 2013 a total of nine projects for the "Transforming our cities" theme were identified as "ready to proceed". Six of these projects have been completed and others are at various stages of development (Table 1). During this period IA's "Transforming our cities" pipeline of "ready to proceed" national projects declined from five projects in 2009 to only three by 2013. This may suggest that by 2013 the need for new city infrastructure had largely been satisfied but this was not the case.

By 2013 the selection and delivery of major projects was once again a political issue but now IA itself was seen as part of the "problem". Critics raised concerns about the lack of transparency as key documents were withheld for reasons of "commercial in confidence" (Mees 2010), while others were concerned about the absence of evaluations and the quality of evaluations that were released (Ergas & Robson 2009). In the lead up to the election of that year the Liberal opposition party announced that they would "strengthen the role of Infrastructure Australia, improve its governance and make it more transparent and accountable" (Liberal Party of Australia 2013, p. 31). Then, when it attained office in October 2013, the

Liberal/National coalition government established two reviews that would lead to the reform of IA. A National Commission of Audit was appointed to examine amongst other things the “scope and efficiency of the Commonwealth Government” (Commonwealth of Australia 2014b, p. i) and the Productivity Commission was instructed to “undertake an inquiry into ways to encourage private financing and funding for major infrastructure projects, including issues relating to the high cost and the long lead times associated with these projects” (Productivity Commission 2014, p. v).

Table 1: “Ready to Proceed” - Transforming Cities (2008-2014)

Project	Endorsed	Status
East-West/Melbourne Metro Rail Tunnel	2009	Due 2026
Gawler Rail Upgrades	2009	Due 2017/18
Gold Coast Rapid Transit Stage 2 and 3	2009	Complete
Regional Rail Express	2009	Complete
Seaford Rail Extension	2009	Complete
Integrated Corridor Devel. Route 86 Demonstration	2010	Complete
Brisbane Cross River Rail	2011	In development
Managed Motorways Monash Fwy High to Warrigal	2011	Complete
Managed Motorways Monash Fwy Warrigal to Clyde	2011	Complete

Source: IA’s annual reports and specific project online updates

By March 2014 the National Commission of Audit had completed its review and recommended that further reforms where needed to ensure that “rigorous and transparent cost benefit analysis” was undertaken before the Commonwealth commit funds to any infrastructure project (Commonwealth of Australia 2014c, p. iv). In a similar vein, the Productivity Commission reported in May 2014 that there were significant short comings with the assessment of infrastructure proposals and made a series of recommendations for improved governance and assessment including the need for “rigorous cost-benefit analyses that are publically released and made available for due diligence by bidders” (Productivity Commission 2014, recommendation 2.3).

It seems that these reviews were politically motivated being established immediately following an election where “transparency and accountability” was a contested issue. Nevertheless, the reviews confirmed the view that IA had failed to address the concern that infrastructure investments were being made for reasons other than the national interest. The case for reform was thus made.

3.2 Infrastructure Australia 2014- Present

The Infrastructure Australia Act was amended by the Liberal/National coalition government in July 2014 to introduce a number of key changes including (Commonwealth of Australia 2014a):

- Reconstituting the organisation as a statutory authority overseen by a board who appoints IA’s CEO (previously the Infrastructure Coordinator was appointed by government);
- A requirement to prepare a 15 year plan and to update this on a 5 yearly basis;

- A greater emphasis on cost benefit analysis; and,
- A new function to review the delivery of projects against set targets.

The reforms included a number of key personnel changes including the appointment of a new Chairman and CEO. Of note is that none of the amendments addressed the issue of transparency despite the recommendations from the preceding reviews nor was there any strengthening of IA's role within the decision making process: it remains an advisory body. While IA has new requirements to report on the assessments undertaken there is no requirement for IA's assessments or any cost benefit analyses to be publically released. IA has adopted a policy of releasing short assessment summaries.

Following IA's restructure the annual reports to COAG were suspended until 2016 whilst the reforms took effect. During this period the new management commenced a second audit of the nation's infrastructure. Although IA completed a similar audit in 2008, the reformed IA claimed the 2016 Audit as the "first ever" audit of the nation's infrastructure (Infrastructure Australia 2015, p. 4). This claim alone, and the overt expose of the previous lack of rigour, illustrates how those in power can define "rationally" to suit their own purposes.

Despite the 2014 reforms criticism of project selection continues. A 2016 review by the Grattan Institute found that the lack of robust and transparent assessment continues to be an issue (Terrill, Emslie & Coates 2016). However, the Grattan report went further in their criticism, finding Commonwealth spending on transport infrastructure disproportionately higher in states with a greater number of swing seats. The implication is that those in power prioritise project selections not to maximise investment returns but rather political outcomes.

Two years after the reform, and eight years after the organisation was established, the reformed IA has identified five projects (as of May 2016) needed to address Australia's urban transport needs (Table 2). All of the supported projects are road network expansions intended to address urban congestion. This is in stark contrast to the focus on urban public transport previously adopted by IA but consistent with the views of the new Coalition government. Tony Abbot, the then Liberal leader of the opposition and Prime Minister during the 2014 reforms, made clear the Coalition government's willingness to rationalise history when he stated: "Now the Commonwealth government has a long history of funding roads. We have no history of funding urban rail and I think it's important that we stick to our knitting, and the Commonwealth's knitting; when it comes to funding, infrastructure is roads." (Carey & Gordon 2013)

Table 2: "Ready" Projects: Urban Transport (2016)

Project	Ready	Status
CityLink - Tullamarine Widening	2016	Due 2018
Bringelly Rd Upgrade Stage 1	2016	Due 2017
NorthConnex	2016	Due 2018
WestConnex	2016	Due 2019
Gateway Motorway Upgrade North	2016	Due 2018

4. Addressing the Nation's Infrastructure Challenges

The provision of advice on “Australia’s current and future needs and priorities relating to nationally significant infrastructure” is a feature of both the 2008 Act (Section 5 (1) (a)) and the 2014 amendment (Section 5C (1)(a)). To this end IA published audit findings in 2008 and again in 2015 as the evidence base they would use to identify the nation’s key infrastructure challenges.

Of the ten challenges identified in 2008 only four remained in the 2015 update with five new challenges being added (see Table 3). The 2015 report provides no explanation for this change. It is possible, but unlikely, that just as the new management assumed that the 2015 audit was the “first ever”, they compiled the key challenges with ‘fresh eyes’. For example, Climate Change was one of the challenges removed in 2015 notwithstanding that this continues to be a major issue for Australia and the world at large. In 2008 IA’s priority was to support a move to a low carbon economy but in 2015 the focus shifted to ‘climate change adaption’ with no explanation as to what this actually meant. IA’s shift parallels the change in national policy under the new Coalition government who also abolished the recently introduced carbon tax. In this light, IA’s change in policy direction appears to reflect the new political environment rather as a result of an objective assessment of Australia’s infrastructure needs.

Following the 2015 Audit IA also released a new assessment framework replacing the model adopted in 2008. No explanation was provided as to the perceived shortcomings of the older approach, or of the benefits of the new approach. The 2008 approach conceived a development pipeline with projects proceeding through four stages (early stage, real potential, threshold and ready to proceed). Under the new two-stage approach solutions under development are “initiatives”, whilst those positively assessed as being ready to proceed are classified as “projects”. Projects having a “major impact” on national problems are described as “high priority projects” although there is no definition of “major impact” (Infrastructure Australia 2016a).

Key changes were also made to IA’s Assessment Framework (Table 4). The Goal orientation of the 2008 framework is replaced with a Problem orientated framework. The implications of this change are discussed below. The second difference is the addition of a Benefit Realisation stage giving effect to the new function within the Act for IA to conduct post delivery reviews. Implementation of post delivery reviews was a key part of IA reform but in the two years since the Act was amended no delivery reviews have been published.

Table 3: Australia’s Infrastructure Challenges

2008 Challenges (Labor Government) (Infrastructure Australia 2008)	2015 Challenges (Lib/National Government) (Infrastructure Australia 2015)
Continuing Challenges	
Supporting Indigenous communities: improving infrastructure in remote and regional Indigenous communities, and closing the gap in essential infrastructure and services between these and non-Indigenous communities.	Indigenous: across the nation we can do more to achieve equity and close the infrastructure gap faced by remote communities
Supporting rural communities: improving the quality of life and economic prosperity in rural and regional communities.	Regional: we must see how infrastructure improvements can enhance local service standards and facilitate rural and regional growth
Create competitive markets: regulatory complexity and competitive anomalies impede the operation of efficient and competitive infrastructure markets, including the development of a nationwide world-class communications network.	Competitive Markets: national infrastructure markets must operate to improve investment decisions and give consumers choice
Deliver better governance: inefficiencies and inconsistencies in governance adversely impact infrastructure operations and investment in Australia.	Governance: integrated planning, transparent project selection, and stakeholder consultation are essential and all have to improve
Old Challenges	
One nation, one set of rules: inconsistent rules, legislation and regulations governing markets impede productivity and create unnecessary costs.	Productivity: national productivity levels need to be increased through regular strategic investment in economic infrastructure
Better use of existing infrastructure: changes in the operation, pricing or utilisation of existing infrastructure to solve problems without the need for investment in additional capacity.	Population: huge population growth, particularly in our major cities, will necessitate the delivery of new and renewed infrastructure
Climate change: in addition to requiring a shift to a low carbon economy, climate change is increasing the demand for improved infrastructure, such as efficient public transport systems and low carbon intensive methods of power generation.	Funding: reforms are essential to increase the total pool of funds made available for infrastructure, especially by facilitating private investment
Supporting our cities: improving the liveability, sustainability and productivity of Australia’s major cities.	Sustainability and Resilience: we will need to cut environmental impacts and improve resilience, using new technology to run our infrastructure better
Boosting exports: increasing the productivity of Australia’s international gateways, making sure that they can meet the rapidly growing freight task without adverse impacts on community amenity.	Connectivity: modernised infrastructure networks and gateways are needed to link businesses, boost trade and improve access to workplaces Best Practice: a unifying theme is how to pursue best practice procurement and delivery, and encourage whole-of-life asset management

Under both the old and new assessment frameworks IA takes the lead in nominating the matters of national significance. The 2008 approach took the form of seven identified “themes” while the current 2016 framework identifies nine “problem categories” (see Table 5). The current approach provides little insight as to the strategies recommended to tackle the identified problems in contrast to strategic direction approach used prior to the reform. This therefore challenges the traditional concept of strategic alignment where projects could be rapidly assessed to determine whether or not they were aligned with the national objectives. For example, the 2016 IPL shows that the problem of “urban congestion” is being addressed by projects providing additional road capacity. Previously, the 2008 “Transforming our cities” theme was targeted towards increased public transport capacity and the better use of existing road infrastructure. This change in strategic direction parallels the shift in the Commonwealth’s stance on transport to focus only on road investment regarding public transport as a matter for the states to fund alone (Carey & Gordon 2013).

Table 4: Infrastructure Australia Assessment Framework Steps

Framework (2008) (Infrastructure Australia 2008)	Five-stage Assessment Framework (Infrastructure Australia 2016a)
<ol style="list-style-type: none"> 1. Goal Definition 2. Problem Identification 3. Problem Assessment 4. Problem analysis 5. Option generation 6. Solution assessment 7. Solution prioritisation 	<ol style="list-style-type: none"> 1. Problem Identification and Priorisation 2. Initiative Identification 3. Options Assessment 4. Business Case Assessment 5. Benefits Realisation (Post implementation)

The IA reforms were “top to bottom” with changes to the organisation’s leadership flowing through to new procedures, shifts in policy directions and a resetting of the nation’s infrastructure priorities. Within each change the influence of the government of the day can be seen at play. However, the declared purpose of the reforms was not to change IA’s strategic direction but to improve “transparency and accountability” and on this metric little progress can be observed. This becomes more evident in the example of the East West Road Link that provides a lesson in the real cost of political decision-making once the exercise of power over rationality results in overt conflict. This project case study is discussed in the next section.

Table 5: Infrastructure Australia Themes and Problems

Themes (2008) (Infrastructure Australia 2008)	Problem Category (2016) (Infrastructure Australia 2016b)
<p>1. A national broadband network: developing a more extensive, globally competitive broadband system;</p> <p>2. Creation of a true national energy market: more extensive national energy grids to enable greater flexibility and competition in the nation’s electricity and gas systems, whilst creating opportunities for the development of renewable energy sources;</p> <p>3. Competitive international gateways: developing more effective ports and associated and transport systems to more efficiently cope with imports and exports;</p> <p>4. A national rail freight network: development of our rail networks so that more freight can be moved by rail;</p> <p>5. Adaptable and secure water supplies: more adaptable and resilient water systems to cope with climate change;</p> <p>6. Transforming our cities: increasing public transport capacity in our cities and making better use of existing transport infrastructure; and</p> <p>7. Providing essential indigenous services: improved services for Indigenous communities.</p>	<ol style="list-style-type: none"> 1. Urban Congestion 2. National Connectivity 3. Corridor Preservation 4. Remote infrastructure 5. Opportunity for Growth 6. Water Security 7. Waste water treatment 8. Resilience 9. Efficient Markets

5. East West Link

The East West Link project provides an example of the challenges faced by IA in promoting objective, evidence based decision-making in the face of political imperatives. Proposals for a freeway connection across the inner north of Melbourne were part of the 1954 Metropolitan Planning scheme and were further considered in the 1969 Transport Plan. Consistent with trends around the world these plans for unfettered freeway expansion were notionally abandoned soon after they were announced. The proposal was again re-examined in the Northern Central Corridor Study in 2003 that found it economically unviable. Five years later, in 2008, the East West Link Needs Assessment Study again confirmed that the project was not economically viable but argued there was, nevertheless, a case for it to proceed (Keys 2014).

Following the recommendations of the 2008 study the then Victorian Labor government commenced the detailed planning of the western section but this work ceased when lost Labour office in November 2010. Then, in October 2011, the new Liberal government began work to develop the eastern section; IA recommended the project for development funding in June 2012 and in January 2013, before this work had reached any conclusion, the then Liberal federal opposition announced it would

commit \$1.5B to fund the eastern section if it won office later that year. By March a business case was completed (subsequently revised in June) confirming that the project was not economically viable (benefit to cost ratio of 0.45). Nevertheless the State announced in the May budget that the project would proceed. By July 2013 the procurement process for the project had commenced leading to a contract being signed in September 2014, just prior to the commencement of the caretaker period¹ preceding the November state election (Victorian Auditor-General 2015).

The decision to proceed with the project was highly contentious. Much of the ensuing debate focused upon the project's economic viability and environmental impact (Dodson et al. 2014; Legacy 2015). Matters came to a head just prior to the signing of the contract in 2014. The state Labour opposition called for the signing of the contract to be postponed until after the state election, with the threat that they would cancel the contract should they win office. In November 2014 Labour indeed, won office and the contract was subsequently terminated early in 2015 triggering a compensation claim from the contractor (Victorian Auditor-General 2015).

In this example we can observe the duel between rationality and power in action: the Commonwealth Government simultaneously reforming IA to strengthen the focus on robust, economic assessment while at the same time supporting a project that was clearly unviable but, I assume, held political appeal. For its part IA played a minor role in the proceedings having been provided with a business case late in the deliberations, and well after both the Commonwealth and State governments had announced their intentions to proceed. IA entered the public debate in September 2014 issuing a press release stating their view that the project was "meritorious" (Infrastructure Australia 2014) even though they had previously shown the project did not meet their own benchmarks of economic viability. In the end IA fail to complete and publish any formal assessment.

6. Discussion and Conclusion

The short history of IA illustrates the conflict between rationality and power that has consistently characterised Australia's infrastructure investment program. An analysis of the dynamics has shown evidence for politicians seeking the "high moral ground" of objective, evidence based analysis yet at the same time, bypassing or manipulating the process to provide rationalisations in support of the decisions that were made opaquely and, presumably, for political purposes. This corruption of rational planning is not confined to Australia as earlier studies have identified similar tendencies throughout the western world (Altsuler & Luberoff 2003; Flyvbjerg 2009; Hall 1982).

It should be acknowledged that IA faces considerable challenges. It is tasked with undertaking rigorous assessment of 'wicked problems' for which there may be no optimal answer. The role of transport within our society cannot be seen as simply a mechanical process subject only to the laws of physics for which objective analysis will always produce optimised answers. Rather any decision must strike a balance between often competing objectives of economic efficiency, environmental sustainability and social justice. Given the reluctance to publish detailed assessments it is impossible to know how IA trades these dimensions of the triple bottom-line.

¹ The caretaker period is time between parliament being dissolved and the new government coming to office. The Under Australian constitutional practices no new policies or major projects should be commenced during this period.

IA is an advisory body not a decision making body. It bears no responsibility or accountability for the decisions that are ultimately made. As the example of the East West Link illustrates, IA can be bypassed when this suits the needs of those in power. Nor is IA a project sponsor with the ability to initiative projects of national significance, instead it relies on others to submit project proposals with little control over whether or not these align with the national or regional interest. The historical inability to establish a project pipeline with more than a handful of initiatives illustrates this challenge.

My conclusion is that IA has failed to achieve its intended purpose of ensuring more rigorous, transparent assessment, and has not established a meaningful list of priority projects. Responsibility for this failure rests not with IA but with the overarching political process. IA failed because it lacks the necessary powers to ensure objectivity prevailed as the political advantage gained through the allocation of infrastructure funding is something those in power will not readily surrender. To improve investment decisions it is necessary therefore to further consider ways and means to strengthen the process of objective assessment, or else accept it as a political process of 'pork barrelling', 'log rolling' and other electability considerations (Altsuler & Luberoff 2003; Mees & Dodson 2006; Terrill, Emslie & Coates 2016).

Edwards (2014) expressed a view that IA should "not be restructured, just abolished" and the role should revert back to the public service. However, such a solution simply reinstates the arrangements that were found to be unsatisfactory prior to 2008. The Grattan Institute echoes the Productivity Commission and the National Commission of Audit when they propose "Governments should not be able to commit public money to transport infrastructure until a rigorous, independent like-for-like evaluation and the underlying business case have been tabled in the parliament" (Terrill, Emslie & Coates 2016, p. 47). Under this approach the independence of IA could be strengthened through clearer accountabilities and parliamentary scrutiny.

Common themes throughout this paper are rationalisations being presented as rational assessment. Flyvbjerg notes the irony of how the Enlightenment's concept of "knowledge is power" is cruelly transformed when those with power define and control knowledge. The availability of information to inform public debate is a threat to the unfettered exercise of power, so perhaps IA's greatest handicap has been the its inability to bring transparency to bear.

Let me conclude by proposing a 'Sunshine Test', a hypothesis that posits a *good* decision is one that can be defended openly, in the hard light of day. The degree to which proponents and decision makers are willing to be transparent is possibly the greatest indicator we can have for the quality of any investment decision.

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