



Association Number A03958 | ABN 64 217 302 489

---

# AUSTRALASIAN RAILWAY ASSOCIATION SUBMISSION

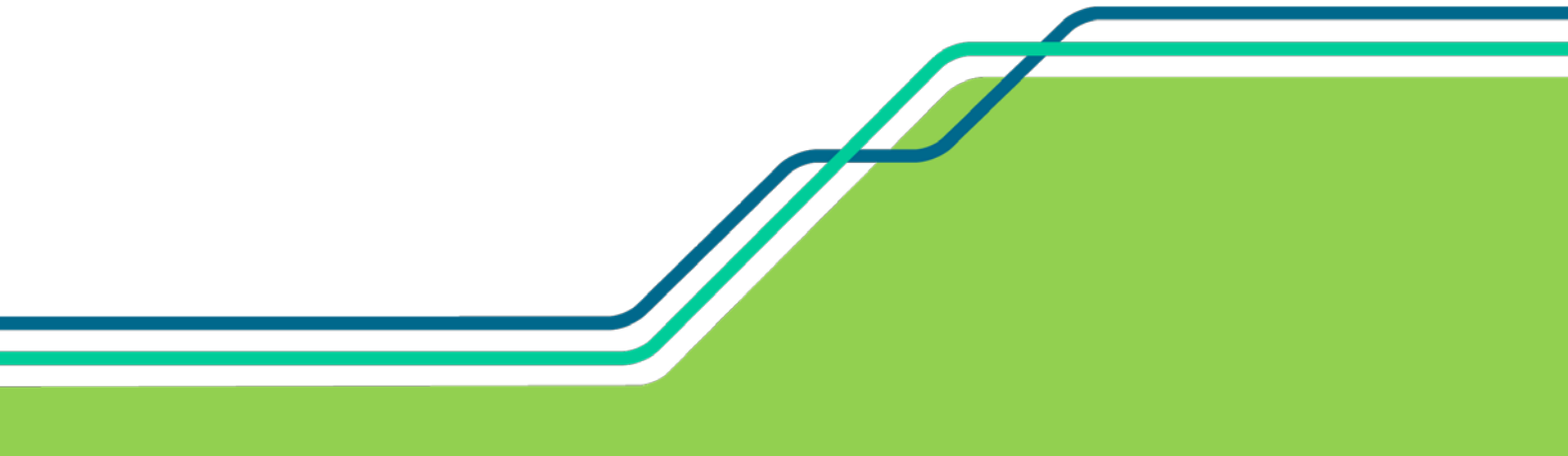
---

To

The Productivity Commission

On

Public Infrastructure Costs



## THE ARA

---

The Australasian Railway Association (ARA) is a not-for-profit member-based association that represents rail throughout Australia, New Zealand and Indonesia. Our members include rail operators, track owners and managers, manufacturers, construction companies and other firms contributing to the rail sector. We contribute to the development of industry and government policies in an effort to ensure Australia's passenger and freight transport systems are well represented and will continue to provide improved services for Australia's growing population.

The ARA thanks the Productivity Commission for the opportunity to provide this submission to the *Inquiry into Infrastructure Costs*. For further information regarding this submission, please contact Rhianne Jory, Associate Director Environment and Regulation via [rjory@ara.net.au](mailto:rjory@ara.net.au) or 02 6270 4504.

## SCOPE OF THE INQUIRY – DEFINITION OF PUBLIC INFRASTRUCTURE

---

The ARA agrees with the Commission's definition of public infrastructure and believes that the current definition of public infrastructure as defined by the Commission is accurate. Federal and state governments have long had significant role and responsibilities in both passenger and freight transport networks and services particularly in determining the types of networks and services to be provided as well as the source of revenue streams to be used to pay for the infrastructure and services.

Having said that, it is important also to have a national perspective applies to some of the locally funded transport projects such as local roads or freight facilities and infrastructure. The key is to look at the local infrastructure in question and assess whether it is an important part of the entire national passenger or freight networks or whether it contributes to the efficiency, effectiveness and productivity of the national networks.

## THE IMPORTANCE OF PUBLIC INFRASTRUCTURE

---

The ARA agrees with Commission that efficient public infrastructure plays a key role in a competitive and productive economy and access to reliable and affordable public infrastructure also has an important role in meeting social and environment objectives. Take passenger rail as an example, there are a number of benefits including the abilities to:

- Reduce traffic congestion
- Improve urban amenity
- Help communities achieve their environmental goals
- Promote public health
- Reduce social isolation.

For more details of the above benefits as well as information on advantages of freight rail, the ARA urges the Commission to refer to the True Value of Rail report (Deloitte Access Economics) as well as the ARA's submission to the Rural and Regional Affairs and Transport Reference Committee's Inquiry on Investment of Commonwealth and State Funds in Public Passenger Transport Infrastructure and Services (2009) available on the ARA website.

## DISTINCTION BETWEEN FUNDING AND FINANCING OF PUBLIC INFRASTRUCTURE

---

The ARA agrees with the Commission that the distinction between funding and financing of public infrastructure must be established. Both mechanisms are essential in creating an efficient and effective market for public transport infrastructure investment. The ARA concurs with the definitions provided by Ernst & Young in its report for the Financial Services Council titled *Financing Australia's Infrastructure Needs: Superannuation investment in infrastructure* (2011). According to Ernst & Young, funding is the allocation of ultimate cash flows that support the construction and operation of infrastructure whereby financing is described as selecting the immediate

source of cash that will physically develop the assets with the repayment of this investment over the life of the asset.<sup>1</sup>

Similarly, Infrastructure Australia distinguishes between the two mechanisms, stating:

*“The term funding... refers to how infrastructure is paid for. Ultimately, there are only two sources of funding for infrastructure, government investment or direct user charges. This is opposed to financing which refers to the way in which debt and/or equity is raised for the delivery and operation of an infrastructure project”.*<sup>2</sup>

Infrastructure Australia follows this differentiation with the statement that “Australia must embrace bold reforms to find new opportunities to fund projects - and efficient finance - to support an enlarged program of infrastructure delivery”.<sup>3</sup>

In essence, funding provides ongoing dollars for a project that are not required to be repaid whereas financing provides up front dollars that will ultimately be repaid (usually with interest). Particularly with regard to financing, governments have a wide range of financing solutions through both the public and private sector. These include but are not limited to Public Private Partnerships (PPP) Schemes.

## FUNDING AND FINANCING MAJOR PUBLIC INFRASTRUCTURE

The ARA has prepared a paper titled *Innovative Funding and Financing for Public Transport: A review of alternative, sustainable funding and financing sources*. This is provided at Attachment 1 and answers many of the questions included in the Productivity Commission Issues Paper.

Although the paper specifically focuses on the funding and financing of public transport infrastructure, the concepts and the identified strengths and weaknesses of the variety of tools that are explored still provide learnings that can be linked to the funding and financing of all forms of major public infrastructure.

---

<sup>1</sup>

<sup>2</sup> Infrastructure Australia, *Infrastructure Finance and Funding Reform*, April 2012

<sup>3</sup> Infrastructure Australia, *Infrastructure Finance and Funding Reform*, April 2012

The paper was developed on the basis that Australian Governments (like many others around the world) cannot afford to continue funding infrastructure through general funds. With an infrastructure backlog costed at \$300 billion<sup>4</sup> estimated by Infrastructure Australia, governments of all levels need to innovate and get smarter at funding and financing infrastructure projects.

The paper defines the difference between funding and financing, explores Australia's current state of play including governance and current funding and then details various revenue raising or financing tools, including the strengths and weaknesses of those tools that have been implemented around the world, at a city, state and national level.

Rather than recommend one over another, the intention of the paper is to spark debate and highlight the innovative options that could be implemented to ensure long-term investment in Australian infrastructure.

Recommendations from the paper include:

- The use of value capture to fund or contribute to the funding of public transport improvements or the funding of a high speed rail line along Australia's East Coast.
- Further developing Transit-Oriented Developments to provide supporting revenue for public transport systems in Australian capital cities.
- The re-introduction of CPI increases to Australia's fuel tax and potentially the hypothecation of the revenue generated through the fuel tax for public transport and road investment.
- A small increase to the GST hypothecated for public transport infrastructure and service investment.
- The introduction of a small payroll tax hypothecated for public transport infrastructure and service investment.
- The use of congestion charging to manage road user congestion and generate dedicated funds to invest in the public transport systems in cities.
- Review of the current PPP frameworks and other financing mechanisms to encourage greater private sector (local and international investors) to participate in economic infrastructure financing.

---

<sup>4</sup> Infrastructure Australia, *National Infrastructure Plan*, June 2013

## Cost of land

With Australia's growing population and continued urban sprawl, land acquisition costs also continue to increase, driving up the cost of public infrastructure projects. However, the use of innovative funding mechanisms such as value uplift capture and transit oriented developments (for public transport infrastructure projects) can neutralise or even provide a revenue stream for these projects.

The innovative funding and financing paper included at Attachment 1 details the successful implementation of value uplift capture in Hong Kong and Downtown Kansas City that has been used to fund public transport by recapturing part of the property value increase the public transport investment has initiated.

Another example of this is the Japanese high speed rail system who subsidised the operation by buying additional land adjacent to the corridor and then selling the land back to developers once the system was operational and the value of the land had increased. Today, Japanese high speed rail operators manage significant transport-oriented developments, including hotels, car parks, retail shopping centres and apartment buildings.

Overseas experience implementing value uplift capture or building transport-oriented developments is certainly something that should replicated here in Australia to help fund transport projects.

# THE PROVISION OF PUBLIC INFRASTRUCTURE – THE ROLE OF THE PRIVATE SECTOR SUCH AS SUPERANNUATION FUNDS

Using private superannuation funds to finance infrastructure projects is not a new concept. Super funds have been directly and indirectly drawn upon to finance infrastructure projects in Australia for many years. Some examples include the Lane Cove Tunnel and Cross City Tunnel in NSW, Port of Brisbane, Adelaide Airport and Melbourne Airport. One of the most recent projects is Port Botany in NSW where the NSW Ports Consortium led by Industry Funds

Management, AustralianSuper, CBus, HESTA, HOSTPLUS and Tawreed Investments Limited, a wholly-owned subsidiary of the Abu Dhabi Investment Authority, was the successful bidder.

Initial estimates of the privatisation of Port Botany by the NSW Government were between \$3-4 billion.<sup>5</sup> The proceeds from the transaction, the NSW Government has committed to invest in Restart NSW – the fund established by the NSW Government to deliver vital infrastructure projects, with 30 per cent of the fund to be reserved for projects in regional areas.<sup>6</sup> The final sale price of Port Botany was \$5.1 billion.<sup>7</sup> This exceeded all estimates and truly reflected the global demand for quality infrastructure for our nation.

The super industry has experienced significant growth in recent times growing by around 92% from \$637 billion in 2004.<sup>8</sup> The projects outlined above are a good indication of the move by the Australian and State governments to embrace this financing model however the investment to date only constitutes a small amount of super funds total assets which are estimated to be around \$1,225 billion.<sup>9</sup>

According to the Association of Superannuation Funds of Australia, the actual range of investment by a super fund depends on a number of factors. Some do not invest in infrastructure while others may invest over ten per cent of their total assets. General allocations range between two to over ten per cent of the assets.<sup>10</sup> Data reveals that at present specialist infrastructure investment managers manage about \$48.8 billion.<sup>11</sup>

Ernst and Young stated in a recent report that only a small amount of the super funds total assets are allocated to the infrastructure sector. As banks' appetite for infrastructure funding continues to decrease, superannuation funds become an even more lucrative source of financing. If Australia is to continue its economic growth and international competitiveness, it is imperative that superannuation funds assume a greater role in infrastructure investment.

---

<sup>5</sup> Australian Financial Review, Ports sale reaps 'historic' \$5bn price for NSW, April 2013

<sup>6</sup> NSW Government, Refinancing of Port Botany and Desal Plant to Fund Major Infrastructure Projects, September 2011

<sup>7</sup> Australian Financial Review, Ports sale reaps 'historic' \$5bn price for NSW, April 2013

<sup>8</sup> Ernst & Young, Financing Australia's Infrastructure Needs, Financial Services Council, 2011

<sup>9</sup> Ernst & Young, Financing Australia's Infrastructure Needs, Financial Services Council, 2011

<sup>10</sup> ASFA, Investing in Transport Infrastructure Discussion Paper, September 2012.

<sup>11</sup> ASFA, Investing in Transport Infrastructure Discussion Paper, September 2012.

## The willingness to increase private sector participation

Recently the Australian and State governments as well as the Superannuation industry have expressed their willingness to increase super funds participation in infrastructure investment. In 2012, the Federal government released a new tax and other infrastructure reforms that would allow for a “lower weighted average cost of capital for eligible projects, lower compliance costs and greater certainty, especially for brownfield investors such as superannuation funds”<sup>12</sup>. The PPPs reform in Victoria is also a good example of State government commitment to this issue. The Victorian government reduced bid costs, modified finance structures, introduced a framework that delivers better value for money, expanded coverage of services and more accessible PPP models for smaller projects to help boost the level of PPP investment in Victoria. It is believed that the new PPPs arrangements in Victoria are in response to fluctuations in market conditions, specifically, the Government and private sector’s fiscal limitations and the public’s increasing demand for quality infrastructure and services. Either way, the reforms show a clear commitment from the Victorian Government for an increase in the level of PPPs in the jurisdiction, and a willingness to address changes in market conditions.

The Superannuation industry has also stated that Australian super funds are willing to provide more of the \$1.3 trillion super savings into infrastructure projects such as rail and power stations, given the right investment framework and allocation of risk<sup>13</sup>. However, despite willingness from the public and private sector, the involvement of super funds in transport infrastructure projects remains low. This is due to a number of regulatory, structural and political barriers including the lack of a clear project pipeline and government commitment, the lack of suitably structured projects for institutional investment, inconsistent and complex procurement processes and extreme regulatory pressures. These factors are explained in detail in the following sections. It is imperative that these barriers are removed to allow super funds to invest more in Australia’s infrastructure projects.

## Superannuation funds in Australia

In Australia, the structure of superannuation is mostly based on the defined contribution model where the retirement benefit of members is an accumulation of employer and member

---

<sup>12</sup> The Hon Anthony Albanese, Former Federal Minister for Infrastructure and Transport, 8 November 2011

<sup>13</sup> Ernst & Young, Financing Australia’s Infrastructure Needs, Financial Services Council, 2011



contributions to the super fund. The implication of this structure is that most assets are on stand by and there is a need for balance between liquidity and long term investments<sup>14</sup>. This type of superannuation structure is very well suited to the long term nature of infrastructure investment<sup>15</sup>.

When determining which stage of project lifecycles to invest in, super funds will look at the type and allocation of risks as well as the availability of capital in the market and the project's return of investment (including the performance of similar projects). This is essential as the primary objective of superannuation funds is to provide retirement incomes to beneficiaries. Therefore, it is essential that superannuation products match the income needs of its members. This requirement means that there must a good rate of return on investment that is sufficiently attractive for super funds to invest in public transport infrastructure. Examples of risks mentioned in infrastructure projects include high bid costs and risks associated with the tender process, construction risk and the fluctuation of the level of patronage and general operational risks.

## Barriers to Success

As mentioned above, there are a number of barriers that prevent superannuation funds from investing in Australian infrastructure. Some of the key barriers are outlined below.

- Inconsistent, complex and expensive bidding processes: The complexity and costs of bidding for major projects particularly PPPs, has become a major impediment to market entry in Australia. Even though governments have worked to address this problem, more work is required. It has been acknowledged that tender costs normally amount to about one per cent of the contract price so the bid cost for a \$5 billion project is likely to be around \$50 million. Few private sector companies, including superannuation funds have the financial capability to be involved in tender processes that require such a significant upfront investment, without any guarantee of success. Therefore, to encourage more private sector investment, governments could institute procurement process reforms to allow a faster transition to preferred bidder. As well as reducing tender costs and risks, this will allow the redeployment of resources to other projects.

---

<sup>14</sup> Ernst & Young, Financing Australia's Infrastructure Needs, Financial Services Council, 2011

<sup>15</sup> The Hon Anthony Albanese, 'Superannuation Funds Wary of Rudd's Nation-Building Plan', the Australian, 17 October, 2008.

- Lack of clear project pipeline and government commitment: A lack of clear project pipeline and government commitment is also a key barrier for private sector investment. The changes in government priorities lead to delayed and cancelled projects which in turn impact on the risk profiles, project costs and the rate of return on investment for the private sector. For institutional investors such as superannuation to invest, there must be certainty around future project pipelines, specifically around the funding sources and commitment of the sponsor government.
- Lack of structured projects for institutional investment: A recent survey shows that the super funds industry has a view that governments have difficulty understanding all superannuation fund investment is done for the benefit of their members and not on social good<sup>16</sup>. Therefore, all investments must earn a return that match with the assessed risks. The super industry believes that current project risk profiles have not been designed to encourage efficient institutional investment.

To effectively address these barriers, the industry recommends the creation of superannuation products that better match infrastructure's revenue and risk profiles and the creation of a more stable and accessible infrastructure market.

## THE USE OF PPP MODELS IN AUSTRALIA

There are two types of PPP in Australia. The first is government-funded PPP where the primary revenue stream that repays the private sector finance used to pay for the building of the facility, takes the form of a service payment from government. The second is user-funded PPP where the primary source of funding takes the form of charges paid by the users of the infrastructure.

In recent times there have been calls for the federal and state governments to step in and improve the existing PPP frameworks. A recent report released by KPMG in June 2013 clearly states that governments must adopt measures aimed at reducing barriers to domestic and overseas bidders and reduce costs<sup>17</sup>. The report shows that PPP projects in Australia have become much more expensive while at the same time market capacity has decreased

---

<sup>16</sup> Ernst & Young, Financing Australia's Infrastructure Needs, Financial Services Council, 2011

<sup>17</sup> KPMG, Financing Australian PPP Projects in the Global Financial Crisis, June 2013

considerably due to the Global Financial Crisis. Barriers as outlined previously were also raised consistently in the KPMG paper. Going forward the paper recommended that governments take practical measures to reduce these barriers. These actions include:

1. Accepting a lower level of financing commitment in bids instead of the traditional model where there is a requirement for underwritten commitments of finance for a period of six months or more;
2. Taking steps to encourage maximum competition for debt finance which may include a funding competition after appointing a preferred bidder;
3. Being willing to provide capital grants or debt finance where appropriate;
4. Investigating credit guaranteed finance or counter indemnity models as possible ways of increasing market capacity and reducing fund costs; and
5. The commonwealth increasing its guarantee to cover states' long term PPP obligations<sup>18</sup>.

Other measures that have been recommended by the private sector also include more risk sharing among participants, more robust financing structures, sensible management of probity, an improved project governance framework, expanding scope of services and disclosure of weightings for evaluation criteria<sup>19</sup>.

## COSTS OF INFRASTRUCTURE PROJECTS

As one of the ARA's working groups, the Rail Contractors Group (RCG) brings together representatives of major rail contractors in Australia including John Holland, Leighton Contractors and Laing O'Rourke. The Group is currently working with Infrastructure Australia and other key stakeholders to improve the policy environment that rail contractors operate within. One of the main agendas of the RCG is to conduct a robust analysis on Australian rail projects construction costs in order to answer the followings questions; 1. does it really cost more to build rails comparing to roads, and 2. why does it cost more to build rail in Australia comparing to overseas.

---

<sup>18</sup> KPMG, Financing Australian PPP Projects in the Global Financial Crisis, June 2013

<sup>19</sup> Clayton Utz, Improving the Outcomes of Public Private Partnerships, 2013

The RCG would welcome an opportunity to share and discuss the results of the analysis with the Commission as part of this Inquiry. Arrangements for the discussion can be made through the ARA contact outlined earlier in this submission.

## The Cost of Rail Infrastructure in Australia

The powerful growth of the infrastructure markets in the last twenty years has brought with it a legacy in terms of relatively high costs of infrastructure compared to many of Australia's global peers. On simple metrics, the cost of building core infrastructure in Australia appears to be high in world terms. For example, the cost of building the Brisbane Cross River Rail project is estimated to be around \$300m per km. This compares to the London Cross Rail project (another exceptionally complex urban heavy rail project) at US\$180m per km, the US North-East corridor line at US\$166m per km and the California High Speed Rail project at US\$50m per km.<sup>20</sup>

The future sustainability of Australia's rail construction sector hinges upon driving down the high costs of tendering, more consistent project planning on behalf of governments and greater industry collaboration.<sup>21</sup>

In the recent report "Rail Infrastructure Project Costing in New South Wales", Evans and Peck summarised the main contributors of high costs of rail construction in Australia, in particular in NSW, identifying three main factors: Scope, Delivery Constraints and High Cost Base.<sup>22</sup>

For this submission, the ARA has selected several key cost driving factors that have been raised by the major contractors. They are as follows:

### *Greenfield and Brownfield Construction*

An important factor affecting the costs of rail infrastructure projects is whether the construction site is a greenfield or brownfield site.

A greenfield site refers to projects which are constructed away from existing operating infrastructure. In the case of rail projects, this means a new rail line in a new corridor. Examples include the South West Rail Link, the Epping to Chatswood Rail Link, the Perth to Mandurah Link, or the Alice Springs to Darwin Link. Greenfields construction projects are not

---

<sup>20</sup> Pottinger, Building Australia, New Models for financing infrastructure, 2013.

<sup>21</sup> Rail Express, The Sustainability of Rail Contracting in Australia, 2012.

<sup>22</sup> General Purpose Standing Committee No. 3, Rail infrastructure project costing in New South Wales, 2012.

significantly affected by real or potential constraints from existing operational infrastructure except at the connection or crossing points.<sup>23</sup>

In contrast, the term brownfields applies to those projects which are constructed within or alongside operating infrastructure. This results in constraints on construction sequence, methods and access within the worksite.

In brownfield rail projects, the operator's objectives may include the continuity of rail operations throughout the construction program. Examples include the Kingsgrove to Revesby Quadruplication, Richmond Line Duplication and Southern Sydney Freight Line.

The complexity and constraints imposed because of brownfields construction significantly reduces construction productivity compared to greenfields construction and requires significant additional design, construction and management resources, from both the contractor and the client organisations.<sup>24</sup> The ARA has estimated the difference of construction costs between the two is at an average of \$40 million.<sup>25</sup>

To elaborate on the above, the construction of three significant brownfield projects cost \$50 million, \$80 million and \$24 million (inclusive of civils, earthworks, stations and rail systems), while three greenfield projects cost \$11 million, \$3 million and \$4 million (inclusive of civils, earthworks and rail systems).<sup>26</sup>

### *Procurement process*

The procurement process in Australia had been criticised as costly and time consuming, which results in even higher cost as time is considered a cost. The tendering costs in Australia are estimated to be around 1-2% of a project's total cost, which are high compared with world benchmarks of 0.5%.<sup>27</sup>

Compared to the UK experience specifically Australian procurement practices for Government projects result in far more expensive outcomes. This is ultimately due to UK projects being more defined with less risk pushed onto the contractor at bidding phase. The result is less design

---

<sup>23</sup> Evans and Peck Pty Limited, Submission to General Purpose Standing Committee No. 3 inquiry into rail infrastructure project costing in NSW, 2011.

<sup>24</sup> Evans and Peck Pty Limited, Submission to General Purpose Standing Committee No. 3 inquiry into rail infrastructure project costing in NSW, 2011.

<sup>25</sup> ARA RCG board meeting, Road versus Rail Construction Cost, 2013.

<sup>26</sup> ARA RCG board meeting, Road versus Rail Construction Cost, 2013.

<sup>27</sup> Rail Express, The Sustainability of Rail Contracting in Australia, 2012.

requirements, less cost attributed to risk allocation, lower bid costs and a great reduction in the amount of information/schedules required. Having said that, private sector processes in Australia are generally quicker and are less incumbent by requirements to fulfil and schedules to complete.

The ARA acknowledges that small changes in this area are occurring, with some of the industry's major clients now paying for some of the tender fees to attract quality contractors.

In the context of rail infrastructure projects, it is often the case that the projects are larger projects, where only the major companies have capability and capacity to go through the tender process. It has been suggested that if projects were to be split into smaller packages, more companies could be involved in the projects.<sup>28</sup> The break down into appropriate sized packages would increase competition between tenderers and lower barriers for local business.

#### *Inappropriate Contracting Arrangements*

A number of projects have suffered from cost overruns due to inappropriate contracting arrangements. Lessons must be learnt from these widely publicised projects to enable all parties to enter into contracting models with their 'eyes wide open' to ensure the right model prevails to deliver a specific project. A number of projects have also been rescued by changing the arrangement once a project is seen to be suffering. This is a positive move and should be encouraged to ensure projects are not just dragged to the ground due to inflexible models.

#### *High cost base*

Australia is known as a country with high-cost of living due to the lack of economies of scale that comes with the small population and also the impact of a two-speed economy.

The two-speed economy in Australia creates competition for resources between transport infrastructure construction and the mining industry. This results in higher costs for resources and labours. While looking into the transport industry itself, the size of the industry is relatively small with only several major players. This leads to a lack of competition and as a result, higher costs.

---

<sup>28</sup> Mr Bryan Nye, CEO, Australasian Railway Association, Evidence, General Purpose Standing Committee No. 3 inquiry into rail infrastructure project costing in NSW, 2011.

Australia's labour costs are reported to be four times higher than in other countries.<sup>29</sup> Local factors in the Australian market also play a role in increased costs for rail projects. These include labour costs and the small size of the domestic infrastructure market. The NSW Audit Office reported on shortages of skilled workers as one of the reasons for delays and cost escalation on a range of urban rail projects in Sydney<sup>30</sup>

The skilled labour shortage issue does not only translate to a lack of skilled engineers and skilled tradespeople in construction companies, it also includes a lack of engineering and procurement skills in transport agencies. This issue leads to an over reliance on external consultants to prepare cost estimates, and to do project design and project management. This lack of in-house procurement expertise is one of the contributors that leads to inflated costs. It is understandable that due to the small volume of railway design and project costing, transport agencies find it challenging to keep design specialists and cost engineers gainfully employed, however it is recommended that transport agencies recruit experienced commercial project managers at the most senior level.<sup>31</sup>

### *Inadequate infrastructure planning*

More efficient and effective infrastructure planning is playing a central role in determining the final project costs because it allows for early planning in surface rail corridors reservation. The lack of reserving rail surface corridors means that new infrastructure has to be located in the tunnels which will significantly increase in the project costs.

A study has shown that the greatest escalator of per-kilometre costs for heavy rail projects is the decision to pursue tunnelled rights of way. The technical and geological complexity and risk of these projects greatly increases this cost.<sup>32</sup>

Removing the two most expensive projects with tunnelled rights-of-way (Epping-Chatswood and Sydney Airport Railway) from the equation, the average construction cost drops by around one-third to \$27.95M per-kilometre. Removing the top five most expensive projects (involving either extensive tunnelled rights-of-way, cut-and-cover tunnelling and grade separations

---

<sup>29</sup> Herbert Hermens, Rail Opportunities Abound, 2013.

<sup>30</sup> Scott Martin, Costing Australian Passenger Rail Projects 2000 – 2012: How much did we pay and what did we get?, 2012.

<sup>31</sup> General Purpose Standing Committee No. 3, Rail infrastructure project costing in New South Wales, 2012.

<sup>32</sup> Parliament of Victoria, Reviewing the Last Decade of Public Transport Infrastructure Projects in Australia, 2011.

(Varsity Lakes extension), tunnelling and rail construction in the inner core for a new CBD station (Britomart Transit Centre) or erecting a new bridge over a waterway (Clifton Hill duplication)) reduces the average construction cost by 60 per cent to \$17M per-kilometre.<sup>33</sup>

### *Uncertain project pipeline*

The current uncertainty around rail's pipeline of projects is also impacting the sector's ability to retain, train and invest in its workforce. Boom-bust project cycles are affecting contractors' ability to provide jobs for their workforce during the "spaces between major projects".<sup>34</sup>

RCG members are of the view that there is a need for greater surety on behalf of all levels of government in Australia around the pipeline of rail projects, and also a need for a nationally-agreed procurement method. This would enable the future sustainability of the sector and would help in better costing.

### *Compliance Cost*

While the industry should not lower its HSE (Health Safety and Environment) standard in order to lower the project costs, it is worth weighting the annual expenditure increases on specific HSE initiatives against the actual improvements in their outcomes.<sup>35</sup>

### *Change of standards*

Change of standards mid-way through a project has an impact on the costs. Change of standards after the project has commenced means engineering design work has to be redone to meet the new standards.<sup>36</sup>

The rail operators' design standards are constantly under review and are periodically revised to achieve improved outcomes. The design standards cover a wide range of issues such as environmental, acoustic, safety, performance, durability and maintenance requirements. Design standard changes can occur at any stage, and they generally result in increased costs. An allowance for potential changes to design standards needs to be considered in the contingency

---

<sup>33</sup> Parliament of Victoria, Reviewing the Last Decade of Public Transport Infrastructure Projects in Australia, 2011.

<sup>34</sup> Rail Express

<sup>35</sup> Mary Thompson, The lunatics have taken over the compliance, 2013.

<sup>36</sup> General Purpose Standing Committee No. 3, Rail infrastructure project costing in New South Wales, 2012.



allowance. Alternatively, projects should be quarantined from changes in design standards after the design has been approved, as is common practice in major road projects.<sup>37</sup>

---

<sup>37</sup> Evans and Peck Pty Limited, Submission to General Purpose Standing Committee No. 3 inquiry into rail infrastructure project costing in NSW, 2011.