

Chapter 4

Infrastructure spending

4.1 This chapter looks at levels of spending on public infrastructure. It examines historic and current levels; patterns of public infrastructure spending; and renewed interest in the level of public infrastructure spending.

Historic and current levels of spending

4.2 In the aftermath of the Global Financial Crises (GFC), spending on public infrastructure in Australia has increased. In its 2014 report, the Productivity Commission (PC) provided the following analysis of spending on public sector engineering construction:¹

Since 2008, it has been equivalent to 2 per cent of GDP or more, whereas in the 20 years prior to that it was mainly between 1 and 1.5 per cent of GDP...In 2013, roads and related infrastructure accounted for about 43 per cent of the total...In recent years, private sector investment in economic infrastructure has been around the same level as public sector investment...²

4.3 Ms Marion Terrill, Transport Program Director, Grattan Institute, put this increase in an international context, stating that:

Australian infrastructure investment is still high by international standards, even though it has come down from its peak in about 2011. Over the past decade, spending by all levels of government has been particularly high, and Australian government spending on infrastructure has grown more quickly than spending in other parts of the budget.³

4.4 Mr Saul Eslake, Economist, confirmed that infrastructure spending had come off its peak and told the committee that engineering construction work done by or for the public sector has fallen from a peak of 2.3 per cent of GDP in the June quarter of 2011 to 1.7 per cent of GDP in the March quarter of 2015. Mr Eslake went on to say this is:

...a little above the levels of the two preceding quarters in which engineering construction work done by or for the public sector was smaller as a proportion of GDP since the September quarter of 2007. The volume of engineering commencements by or for the public sector and the pipeline of work still to be done on existing projects by or for the public sector have also been on a declining trajectory for some time.⁴

1 Public sector engineering construction is commonly used as a proxy for government investment in economic infrastructure.

2 Productivity Commission, *Public Infrastructure*, Inquiry Report No. 71 (2014), Volume 1, p. 57.

3 *Committee Hansard*, 5 November 2015, p. 1.

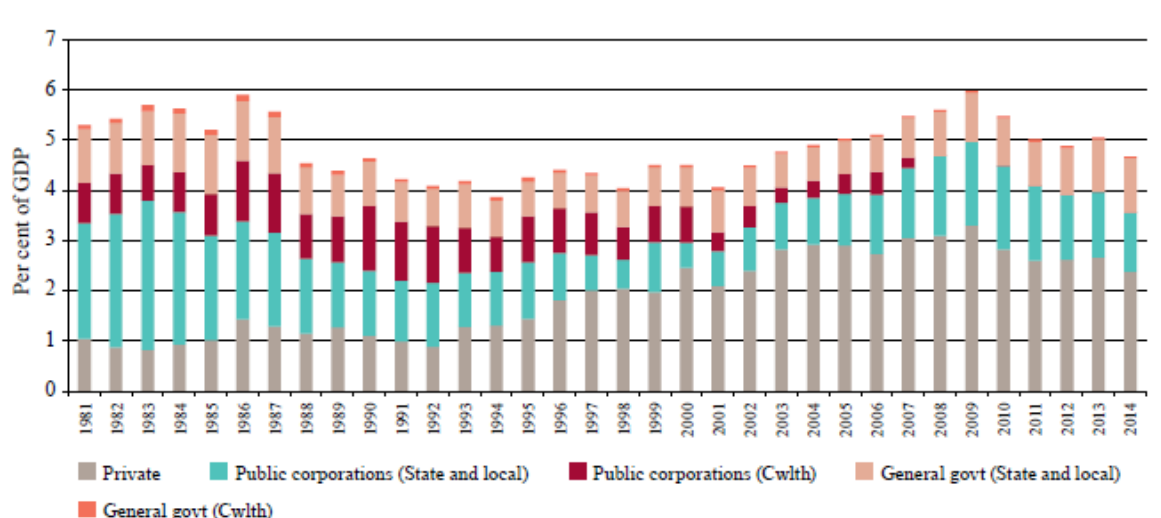
4 *Committee Hansard*, 14 August 2015, p. 2.

4.5 Dr Robert Bianchi, Associate Professor of Finance at Griffith University, took a longer view and provided evidence in his submission of a:

...a long-term structural decline in public infrastructure investment in past decades, both globally and in Australia.⁵

4.6 This view is supported in Infrastructure Australia's (IA) Audit Report on the level of expenditure on public infrastructure over the last three decades.

Figure 4.1: Public and private investment in transport, electricity, gas, water, waste and telecommunications infrastructure – 1981 to 2014 (year ending 30 June)⁶



Source: Infrastructure Australia analysis of Australian Bureau of Statistics (2015) data

Infrastructure shortfall

4.7 The committee heard divergent evidence on whether Australia has an infrastructure deficit and, if so, whether this deficit can be quantified.

4.8 In October 2012, IA published a paper 'Australia's Public Infrastructure, Part of the Answer to removing the Infrastructure Deficit' which noted:

There are various estimates of the infrastructure deficit in Australia, but one thing is consistently concluded, the gap is very large.⁷

4.9 IA's 2015 Audit Report stated that 'currently available data and information do not permit a detailed answer'⁸ to the question of how big the infrastructure gap is. However, IA did conclude that:

5 Submission 66, p 3.

6 Infrastructure Australia, *Australian Infrastructure Audit: Our Infrastructure Challenges Report – Volume 1* (April 2015), p. 48.

7 Infrastructure Australia, *Australia's public infrastructure, part of the answer to removing the infrastructure deficit*, October 2012, p. 4.

8 Infrastructure Australia, *Australian Infrastructure Audit: Our Infrastructure Challenges Report – Volume 1* (April 2015), p. 31.

Across various sectors, gaps in service quality already exist and will grow. These gaps are particularly evident in urban transport. Gaps in the quality and reliability of water services in some rural towns are also evident.⁹

4.10 The PC considered this question in its 2014 inquiry report and found a perception of an infrastructure deficit that was resulting in a renewed interest in private sector funding and financing of public infrastructure projects. The PC went on to note that Australia has a gap between current and required infrastructure stock, that estimates of the size of this gap vary, but that:

Many inquiry participants endorsed the notion that there was a substantial infrastructure deficit.¹⁰

4.11 During the hearings Industry Super Australia provided a figure from research undertaken by Infrastructure Partnerships Australia which determined that 'Australia will need about \$770 billion in capital investment over the next decade.'¹¹

4.12 The PC cautioned that 'reliance on the notion of an infrastructure deficit...could encourage poor investment choices'.¹² The PC observed that there was evidence of substantial community interest in infrastructure, and its importance to productivity and the quality of life. However, the PC concluded that determining the level of infrastructure that most enhances welfare is a complex task and:

It is likely to be best approached by rigorous analysis of individual projects, rather than seeking to surmount an estimated deficit.¹³

4.13 When asked, Ms Terrill indicated that various groups have estimated very large infrastructure deficits.¹⁴ However, she emphasised that any estimation will depend on what is defined as infrastructure. Ms Terrill went on to say that she did not think there is an objective figure that can be used:

I think there is not an objective gap, but in a wealthy society you want great connections. It is one of the many great things that you want in a wealthy society, and it competes with those other things, rather than there being an external benchmark that you can point to. In the absence of service levels, if there were a commitment to particular service levels then you would be

9 Infrastructure Australia, *Australian Infrastructure Audit: Our Infrastructure Challenges Report – Volume 1* (April 2015), p. 7.

10 Productivity Commission, *Public Infrastructure*, Inquiry Report No. 71 (2014), Volume 1, p. 65. See Ms Terrill who spoke about the strong sense in the community that major cities are suffering significant congestion, *Committee Hansard*, 5 November 2015, p. 5.

11 Infrastructure Partnerships Australia, *Partnerships 2010 Infrastructure & Investment Conference Report* (2010), p. 2.

12 Productivity Commission, *Public Infrastructure*, Inquiry Report No. 71 (2014), Volume 1, p. 2.

13 Productivity Commission, *Public Infrastructure*, Inquiry Report No. 71 (2014), Volume 1, p. 66.

14 *Committee Hansard*, 5 November 2015, p. 2.

able to quantify a gap, but otherwise you are kind of picking the goal and then picking the difference.¹⁵

4.14 This sentiment was echoed by Mr Brenton West, Chief Executive Officer, Southern Tasmanian Councils Authority:

Infrastructure is a little bit like a piece of string, though. If you said you had \$15 billion, I could find you \$15 billion of projects that these councils support. If you said you had \$1 billion, I could find that.¹⁶

4.15 Mr Eslake also questioned the ability to 'establish *a priori* how much infrastructure spending Australia needs':

...it is important to remember that one of the purposes of having governments undertake this kind of spending is the economic stabilisation objective. That is to say: you do not determine how much government should spend independently of how much spare capacity there is in the economy to absorb that additional spending without putting upward pressure on inflation and interest rates.¹⁷

4.16 IA suggested 'the existence and scale of any infrastructure shortfall or gap'¹⁸ is the function of choice rather than an objective fact:

Ultimately, we get the infrastructure (and therefore the level of service) that we are prepared to pay for, either through taxes and/or user charges.¹⁹

Maintenance

4.17 The committee heard evidence suggesting a shortfall in the maintenance of existing infrastructure. Ms Terrill highlighted inadequate maintenance as an issue:

...Australia could get better value from public infrastructure through a more systematic approach to maintenance. Infrastructure Australia's recent Audit found under-investment in the maintenance of local roads, particularly in regional and remote areas, where there are large networks to be maintained and councils have limited or declining income bases. There is also inadequate maintenance of regional rail infrastructure carrying low volumes of gain and/or general freight, especially those with ageing timber bridges and timber sleepers. International comparisons suggest that Australia under-spends on maintenance of transport infrastructure...Australia's low ranking for maintenance spending contrasts with our very high spending on transport infrastructure...²⁰

15 *Committee Hansard*, 5 November 2015, p. 2. See also Ms Marion Terrill, *Roads to riches, Better transport investment*, Grattan Institute, April 2016, pp 6-7.

16 *Committee Hansard*, 6 November 2015, p. 12.

17 *Committee Hansard*, 14 August 2015, p. 4.

18 Infrastructure Australia, *Australian Infrastructure Audit: Our Infrastructure Challenges Report – Volume 1* (April 2015), p. 51.

19 Infrastructure Australia, *Australian Infrastructure Audit: Our Infrastructure Challenges Report – Volume 1* (April 2015), p. 51.

20 *Submission 65*, p. 7.

4.18 Mr Philip Davies, Chief Executive Officer, IA told the committee that:

One of the things that was identified in our audit—and we talked about it more in the plan—is a maintenance deficit. When we talk about planning, one of our areas of recommendation is around taking a more holistic view of our infrastructure, both whole-of-asset life—focusing on not just the capital investment but ongoing maintenance and ultimately renewal—and more broadly looking at how that solution fits within a system and network and how it can deliver broader outcomes for the community.²¹

4.19 In a more recent report, Ms Terrill highlighted that the need for new transport infrastructure will depend on how well exiting infrastructure is maintained and used:

One way to get more value from existing infrastructure is through a more systematic approach to maintenance. The operational costs of maintaining long-lived assets can be many times greater than the planning and building cost. Even though Australia's investment level is the highest of OECD countries, maintenance levels are among the lowest...Australia spent only 15 per cent of transport infrastructure funds on maintenance in 2013 compared to 25 per cent a decade ago. Infrastructure Australia recently concluded that sections of the infrastructure base are 'already in poor or declining condition'.²²

4.20 IA commissioned GHD to evaluate the maintenance of existing infrastructure. GHD concluded that:

All sectors present maintenance issues and challenges that will need to be addressed. However, maintenance issues are most pressing in the transport sector and in areas of the water sector.

As a broad observation, assets owned by local government present greater maintenance challenges than those owned by state and territory governments (or their trading enterprises).

Data on infrastructure maintenance and analysis of that data is surprisingly limited. It is not consistently held and reported across the country.²³

Local Government

4.21 The Western Australian Local Government Association (WALGA) suggested that, as a result of increased infrastructure responsibility, there was a disjoint between the expected level of service and the capacity to pay, with the effects including:

...the need to defer asset renewal and staff recruitment; difficulty in meeting co-contributions for committed infrastructure projects that are cofounded by other levels of Government; cuts to maintenance expenditure,

21 *Proof Committee Hansard*, 1 March 2016, p. 3.

22 See also Ms Marion Terrill, *Roads to riches, Better transport investment*, Grattan Institute, April 2016, p. 8.

23 GHD, *Infrastructure Maintenance: A report for Infrastructure Australia* (March 2015), p. iii.

ultimately reducing the useful life of assets; and larger rate increases that those anticipated in Councils' Long Term Financial Plans.²⁴

4.22 Mr Raymond Tame, Chief Executive Officer, City of Armadale, indicated that local councils have the responsibility for recreational and social facilities for communities. Currently the cost of providing these facilities is beyond the finances accumulated by most local councils:²⁵

...in, say, Swan or down in Mandurah, you are talking \$40 million capital costs and then million dollars at least per annum in running and operating them. That is a challenge with that three per cent share of the taxation system. The current taxation system is not providing a vehicle either to secure the land for that sort of activity or providing the infrastructure.²⁶

4.23 Mr Tame stressed that local governments were struggling to maintain, build and sustain infrastructure projects. Local governments felt that they had a disproportionate burden, as:

... Local government capability is three per cent of the taxation base but we are looking after 36 per cent of the infrastructure...²⁷

Grants indexation freeze

4.24 The 2014-15 Federal Budget decision to freeze funding indexation until 2016-17 has been an issue for local government. Mr Brenton West, Chief Executive Officer, Southern Tasmanian Councils Authority, outlined that Financial Assistance Grants:

...are really important to local councils to invest in local community projects and local community infrastructure... [T]o have them frozen is a challenge to councils. It is not just hoping they will be unfrozen in, I think, three years from 2014, it is that they are suddenly three years behind.²⁸

4.25 Mayor Kristie Johnston, appearing in a private capacity, was also troubled by the freeze as it limit's governments ability to deliver community services. Mayor Johnston also highlighted the long-term impact:

It does make it very hard for us to budget as well when we are looking at 10-year financial plans and we have a freeze for a certain period of time. That makes it very difficult for us to plan financially to be sustainable.²⁹

4.26 The WALGA in its submission re-iterated the challenges of the gradual diminution of grant support.³⁰ WALGA added that the freeze impacted on the ability to provide public infrastructure:

24 *Submission 72*, p. 13.

25 *Committee Hansard*, 9 October 2015, p. 3.

26 *Committee Hansard*, 9 October 2015, p. 3.

27 *Committee Hansard*, 9 October 2015, p. 2.

28 *Committee Hansard*, 6 November 2015, p. 20.

29 *Committee Hansard*, 6 November 2015, p. 7.

30 Western Australian Local Government Association, *Submission 72*, p. 4.

A number of Local Governments in Metropolitan Perth have a high fiscal capacity and may be able to pass the impact of the indexation freeze onto ratepayers. However, this is not the case for the majority of WA's Local Governments where fiscal capacity is often low due to lower population density and greater demands on infrastructure provision and maintenance.³¹

Rates caps

4.27 The committee understands that many local governments have previously been, or still are, subject to a rates cap. As noted in previous chapters, the revenue shortfall this has created has further limited council's capacity to fund public infrastructure and to address asset-maintenance backlogs.³²

4.28 Standard and Poor's Ratings Services informed the committee that the current rate caps in New South Wales (NSW) and previous caps in Victoria resulted in 'significant infrastructure backlogs, deteriorating asset quality and lower levels of service'.³³ For example:

In 2013, the New South Wales Treasury Corp. reported that two-thirds of its 152 councils were running operating deficits, deteriorating the sector's financial sustainability. It also estimated an asset-maintenance backlog of A\$1.6 billion over the past four years had emerged.³⁴

4.29 In response NSW Treasury Corp. made a number of recommendations to address this, including:

...having rate increases that meet underlying council costs, prioritising asset-management planning, and increasing the use of debt. It suggested that several councils should use debt as an efficient means of addressing infrastructure backlogs, enhancing intergenerational equity, and improving asset quality and services.³⁵

4.30 Standard and Poor's also advised that in Victoria, the Auditor General estimated that:

...the local councils' infrastructure maintenance backlog was A\$225 million in 2012 and is growing. This could be partly because of previously imposed rate caps. In 1995, Victorian councils were forced to reduce rates by 20%, with future rises limited to inflation minus 1% to drive efficiencies, and reduce duplication and wastage. The state government claimed savings of about A\$400 million over 18 months; however, this figure was disputed, especially when considering the reduction in services and the maintenance costs of aging infrastructure.³⁶

31 *Submission 72*, p. 13.

32 *Submission 63*, p. 7.

33 *Submission 63*, p. 7.

34 *Submission 63*, p. 7.

35 *Submission 63*, p. 7.

36 *Submission 63*, p. 7.

4.31 In response the state government 'subsequently abolished these caps following the emergence of severe infrastructure maintenance backlogs, particularly in regional Victoria'.³⁷

4.32 WALGA submitted that rate caps are a key risk:

The possibility of restrictions on rate revenue, such as rate capping, and unanticipated increases in State Government imposed costs for Local Governments represent key financial risks for Local Government.³⁸

Future levels of spending

4.33 Given continued stagnation in the global economy and ongoing volatility in global markets, investment in public infrastructure has received renewed attention in recent years, both internationally and domestically.

4.34 Mr Eslake noted that the International Monetary Fund (IMF) made the economic case for investment in public infrastructure in October 2014:

For economies with clearly identified infrastructure needs and efficient public investment processes and where there is economic slack and monetary accommodation, there is a strong case for increasing public infrastructure investment. Moreover, evidence from advanced economies suggests that an increase in public investment that is debt financed could have larger output effects than one that is budget neutral...³⁹

4.35 The IMF stated that the potential infrastructure investment gains are shaped by a number of factors, namely:

- *The degree of economic slack.* The short-term boost to output is substantially larger when public investment is undertaken during periods of economic slack and monetary policy accommodation, with the latter limiting the increase in interest rates in response to the rise in investment.
- *The efficiency of public investment.* The output effects are also bigger in countries with a high degree of public investment efficiency, where additional public investment spending is not wasted and is allocated to projects with high rates of return.
- *How it is financed.* In addition, evidence from advanced economies suggests public investment that is financed by issuing debt has larger output effects than when it is financed by raising taxes or cutting other spending.⁴⁰

4.36 However, in recommending greater investment in infrastructure by countries such as Australia, the IMF cautioned that this should not:

37 *Submission 63*, p. 7.

38 *Submission 72*, p. 17.

39 *Committee Hansard*, 14 August 2015, p. 1.

40 Abdul Abiad, David Furceri, and Petia Topalova, World Economic Outlook: 'The time is right for an Infrastructure Push' (30 September 2014); Chapter 3 of the full IMF report, *Is it time for an infrastructure push? The Macroeconomic effects of public investment* in IMF, *World Economic Outlook 2014* (October 2014), pp 75-107.

...be interpreted as a blanket recommendation for a debt-financed public investment increase in all advanced economies, as adverse market reactions— which might occur in some countries with already-high debt-to-GDP ratios or where returns to infrastructure investment are uncertain— could raise financing costs and further increase debt pressure.⁴¹

4.37 The Organisation for Economic Co-operation and Development's (OECD) *2015 World Economic Outlook* also suggested that Australian governments prioritise infrastructure projects to help productivity performance and sustainable growth, while noting the government's expedited programs to improve roads networks, and infrastructure financing incentives such as the Asset Recycling Scheme.⁴²

4.38 In June 2015, the Reserve Bank Governor, Mr Glenn Stevens, observed that 'infrastructure has a role to play in sustaining growth and also in generating confidence'.⁴³ Mr Stevens explained:

...it would be confidence-enhancing if there was an agreed story about a long-term pipeline of infrastructure projects, surrounded by appropriate governance on project selection, risk-sharing between public and private sectors at varying stages of production and ownership, and appropriate pricing for use of the finished product.⁴⁴

4.39 Mr Stevens detailed the benefits of such an approach:

The suppliers would feel it was worth their while to improve their offering if projects were not just one-offs. The financial sector would be attracted to the opportunities for financing and asset ownership. The real economy would benefit from the steady pipeline of construction work – as opposed to a boom and bust. It would also benefit from confidence about improved efficiency of logistics over time resulting from the better infrastructure...⁴⁵

4.40 Mr Eslake's views indicated that public funding of infrastructure had significant support among many economists, as it plays an essential role in lifting productivity across the economy:

...mainstream opinion among economists has become more supportive of the idea that public infrastructure spending can have beneficial effects, both in the short term in ameliorating protracted weakness in household or business spending—especially in circumstances where the efficacy of monetary policy to that end has become limited—and over longer periods

41 IMF, *World Economic Outlook: Legacies, Clouds, Uncertainties*, October 2014, p. 77.

42 OECD, *World Economic Outlook 2015*, pp. 139-140.

43 Mr Glenn Stevens, Address to the Economic Society of Australia Luncheon, Brisbane, 10 June 2015.

44 Mr Glenn Stevens, Address to the Economic Society of Australia Luncheon, Brisbane, 10 June 2015.

45 Mr Glenn Stevens, Address to the Economic Society of Australia Luncheon, Brisbane, 10 June 2015.

as a result of the contribution that well-chosen infrastructure projects can make to enhancing productivity growth.⁴⁶

4.41 Mr Eslake, noted that government spending on infrastructure can play a useful role in economic management by offsetting the effects of large swings in private investment. However, he explained that using public infrastructure investment in this way fell out of favour towards the end of the 20th century, partly for ideological reasons but also because governments found it difficult to get the timing right:

...Governments have often found it difficult to ensure that public infrastructure spending does actually ameliorate the business cycle rather than exaggerate it—or, as economists would say, operates in a countercyclical rather than a procyclical fashion. That was particularly apparent during and after the recession of the early 90s when the infrastructure spending programs launched by the Keating government, under the heading of 'One Nation', did not begin to roll out until after the recession was over. Instead, by coinciding with the subsequent upswing in private sector spending, it had the unintended effect of adding to upward pressure on interest rates.⁴⁷

46 *Committee Hansard*, 14 August 2015, p. 1.

47 *Committee Hansard*, 14 August 2015, p. 1.