

Chapter 3

The need for an integrated approach to future transport needs

3.1 This chapter considers the need to move towards an integrated approach to transport, transport funding and urban development.

From a 'private car versus public transport' debate to an integrated approach

3.2 Evidence to the committee highlighted the importance of integration at a number of different levels. These include an integrated approach to congestion utilising all transport modes, transport planning within infrastructure development (which takes into consideration factors including employment hubs and land use), and an integrated and mutually supportive approach to transport pricing mechanisms.

3.3 In its Urban Transport Strategy, Infrastructure Australia acknowledged that debates in Australia about urban transport have focused on either roads or public transport.¹ It recognised that urban transport has not been viewed as an integrated system dealing with both people and freight flows. Similarly, the Committee for Perth noted that planning for urban transport in Australia had mainly focused on either roads (especially car use) or public transport with both functions often undertaken in isolation of each other. It argued that urban transport has not been viewed as an integrated system dealing with people, cars and freight flows (by road, rail, sea and air) while:

Little consideration has also been given to the impact of transportation on economic productivity, including its impact on the location, form and function of the city's employment and activity centres and on its urban form.²

3.4 Infrastructure Australia acknowledged that any discussion of urban transport needs to consider roads and public transport together given that 'greater use of one may result in less use of the other, and funds allocated to one are not able to be allocated to the other'.³

3.5 Mr Cole Hendrigan of the Curtin University Sustainability Policy Institute, made the point that integration of road and rail was fundamental if only to maximise investments already made in both modes of transport.⁴

3.6 Professor Currie noted that integration across road and rail was important for reasons including the fact that car access to public transport systems is a significant

1 Infrastructure Australia, *Submission 2*, Attachment 1, p. 5.

2 Committee for Perth, *Submission 6*, p. 2.

3 Infrastructure Australia, *Submission 2*, Attachment 1, p. 5.

4 Mr Cole Hendrigan, Curtin University Sustainability Policy Institute, *Committee Hansard*, 19 February 2014, p. 22.

but often undervalued commuter requirement. He explained that as public transport systems don't cover most of Australia's cities, with approximately half of the city of Sydney without public transport, about 40 per cent of rail users access railway networks by car. At the same time, most public transport available in Australia's cities is road-based as approximately 70 per cent of public transport services comprise buses rather than trains and trams. For these reasons, prioritising on-road transport requires consideration of the trade-off between road space and road time.⁵ Professor Currie argued that there were three primary problems in relation to public transport in Australia:

The first is the congestion we have in our railways in central areas...The second is that our trams in Melbourne, or streetcars, are stuck in traffic. The third is that the bus coverage of our outer suburbs is very poor.⁶

3.7 ARA also submitted that Australian cities have traditionally invested in roads to combat congestion despite the fact that investing in additional roads to accommodate more cars is not a long-term solution.⁷ The department also recognised the need for an integrated approach to address congestion, which, is otherwise set to increase. The department acknowledged that both urban road and rail systems are an essential part of both urban passenger and freight networks and do not operation in isolation of each other.⁸

3.8 ARA drew on a railway study in Sydney which found that if rail absorbed 30 per cent of the forecast increase in urban travel then congestion, carbon emissions and safety costs could be reduced by approximately \$1 billion a year by 2025.⁹ It also noted that concentrating investment in one mode of transport would create an 'unbalanced, inefficient transport system that is unable to meet the growing needs of the population' whereas:

An integrated transport system with service connectivity between transport modes is critical. It allows more people to use public transport as they can move from more origins to more destinations which in turn increases the productivity of the city and therefore the nation.¹⁰

3.9 The Transport Reform Network (TRN) also acknowledged that many transport projects are planned in isolation of a broader transport vision and system.¹¹ The introduction of a new mode or extension of an existing mode will be directed at solving a particular problem rather than contributing to an integrated solution. The Committee for Melbourne gave an example whereby one piece of road is fixed only to

5 Professor Graham Currie, Monash University, *Committee Hansard*, 18 February 2014, p. 1.

6 Professor Graham Currie, Monash University, *Committee Hansard*, 18 February 2014, p. 13.

7 Australasian Railway Association, *Submission 7*, p. 3.

8 Department of Infrastructure and Regional Development, *Submission 11*, p. 4.

9 Australasian Railway Association, *Submission 7*, p. 3.

10 Australasian Railway Association, *Submission 7*, pp 3–4.

11 Transport Reform Network, *Submission 32*, p. [1].

create a bottleneck further down the same road.¹² What is missing is planning at a system level across all geographical jurisdictions.¹³ As TRN argued, the issue was not one of rail versus roads, or cars versus buses, but rather how to finance, fund and deliver transport solutions that benefit all users.¹⁴

Integrated transport and urban productivity

3.10 The integration of transport planning as part of city infrastructure development was a key theme of the inquiry. The committee received considerable evidence which highlighted the impact of urban transport on city productivity and national competitiveness.¹⁵

3.11 Defining competitiveness as a 'set of institutions, policies, and factors that determine the level of productivity of a country' the World Economic Forum (WEF) identified extensive and efficient infrastructure as the second of twelve pillars of economic competitiveness.¹⁶ WEF noted that:

Well-developed infrastructure reduces the effect of distance between regions, integrating the national market and connecting it at low cost to markets in other countries and regions. In addition, the quality and extensiveness of infrastructure networks significantly impact economic growth and affect income inequalities and poverty in a variety of ways. A well-developed transport and communications infrastructure network is a prerequisite for the access of less-developed communities to core economic activities and services.¹⁷

3.12 In 2010–11, Australia was ranked by WEF on its global competitiveness scale in sixteenth position. WEF noted that if Australia is to progress further, the country would need to increase the sophistication of its businesses and strengthen its innovation capacity.¹⁸ In terms of infrastructure, Australia was ranked twenty-second in the world which, according to the Committee for Perth, is proof that investing in infrastructure is vital to Australia's international competitiveness.¹⁹

12 Ms Kate Roffey, Committee for Melbourne, *Committee Hansard*, 18 February 2014, p. 17.

13 Mr Philip Davies, Transport Reform Network, *Committee Hansard*, 18 February 2014, p. 25.

14 Transport Reform Network, *Submission 32*, p. [1].

15 Committee for Melbourne, *Submission 27*, p. [2]; Greater Shepparton City Council, *Submission 45*, p. [1].

16 World Economic Forum, *Global Competitiveness Report 2010–11*, p. 4, http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf (accessed 3 February 2014).

17 World Economic Forum, *Global Competitiveness Report 2010–11*, p. 4.

18 Switzerland was ranked first followed by Sweden and Singapore. World Economic Forum, *Global Competitiveness Report 2010–11*, p. 28.

19 World Economic Forum, *Global Competitiveness Report 2010–11*, p. 18; Committee for Perth, *Submission 6*, Attachment 1, p. 2.

3.13 According to the Committee for Perth, the measures of competitiveness are generally based on pragmatic indicators including public transport infrastructure and internal connectivity.²⁰ It noted that the competitive success of cities or city-regions depends on their economic diversity, skills and human capital, quality of life, environment, innovation and connectivity.²¹

3.14 If public transport is to deliver connectivity and productivity enhancements, an understanding of the location of growth areas and employment hubs is fundamental. This way, future investment can be targeted to deliver better outcomes for the national economy.²² As the physical limits of major urban environments become more evident, and widening roads and increasing the number of public transport services is no longer effective in combating congestion, major cities will require wholesale reform and planning in order to transform how people move, work and live.²³

3.15 Evidence to the committee highlighted that Australia's CBDs will be unable to absorb expected population and jobs growth, thereby requiring secondary and tertiary hubs to take up much of the demand. Ms Emma de Jager, Executive Officer of the Planning Institute of Australia argued that this would require initiatives to improve the interconnectivity of major regional centres outside of the CBD. However, one of the major challenges to creating multiple-centre cities is that of the current radial mass transit network. Transport corridors are generally centred on the CBD and radiate outwards to the suburbs, thereby requiring commuters to travel via the CBD to access other parts of a city. This in turn causes long delays and added congestion.²⁴ In the case of Perth, which has a radial rail and radial road system, there is little in the way of orbital link-up.²⁵ The establishment of a more interconnected and multi-centred urban environment would therefore require a rethink of the traditional CBD-centric networks and establishment of secondary and tertiary population hubs.²⁶

3.16 The integration of residential and employment hubs resulting from connected hub-and-spoke public transport networks would increase the ability of those in the outer suburbs to access jobs and create wealth. The transformation of cities in this way would ensure that Australians are not excluded from some job markets on the basis of where they live. The Planning Institute of Australia explained that:

20 Committee for Perth, *Submission 6*, Attachment 1, p. 2.

21 Committee for Perth, *Submission 6*, Attachment 1, p. 1.

22 Department of Infrastructure and Regional Development, *Submission 11*, p. 6.

23 Moving People 2030 Taskforce, *Moving Australia 2013: A Transport Plan for a Productive and Active Australia*, 2013, p. 13.

24 Moving People 2030 Taskforce, *Moving Australia 2013: A Transport Plan for a Productive and Active Australia*, 2013, p. 20.

25 Ms Marion Fulker, Committee for Perth, *Committee Hansard*, 19 February 2014, p. 43.

26 Ms Emma de Jager, Planning Institute of Australia, *Committee Hansard*, 19 February 2014, p. 47.

There are several studies which document that public transport investment will be needed along major corridors to cater for the high density, mixed-use developments and capacity expansion that will be required in several CBD oriented public transport services to cater for patronage growth. Failure to provide such capacity carries risks of CBD job loss, with the associated losses of agglomeration economics for which CBDs are important from an economic perspective.²⁷

3.17 The need to maximise benefits to dense city populations by ensuring that new residential and commercial zones are developed around major transport hubs and nodes was a central theme of the inquiry.²⁸

3.18 The point was made that those who live on the outskirts and on the fringes may pay less for their housing in contrast to those in inner city areas, but will have to spend considerably more money and time on transport. Professor Adams drew on research conducted by Griffith University which found that increasing numbers of people, many of whom are not in poorly paid employment, are time poor given the time it takes them to travel to work or to make household purchases.²⁹

3.19 However, evidence provided by Infrastructure Australia indicated that there is a direct link between low-income households and the need to travel greater distances in order to get to places of employment, services and activities.³⁰ As many parts of Australia's cities provide poor transport access to employment, travel times continue to expand. In some parts of Sydney, a journey of 45 minutes by car or 60 minutes on public transport will provide a commuter access to only 10–20 per cent of all jobs available in the metropolitan area.³¹

3.20 Part of the problem is that outside of metropolitan areas, transport options are increasingly limited.³² In Melbourne, rail reaches an estimated 30 per cent of the population and trams reach 25 per cent. Therefore, for 70 per cent of the population, buses are the only option. However, buses are as infrequent as 40 minutes apart during peak periods and 50 minutes at other times. Therefore, 95 per cent of the transport task from outer metropolis growth areas reliant on buses is undertaken by people driving cars.³³

3.21 Professor Adams noted that as Australian cities will have to almost double their urban accommodation capacity over the next 40 years in parallel with population

27 Ms Emma de Jager, Planning Institute of Australia, *Committee Hansard*, 19 February 2014, p. 47.

28 These matters are discussed at greater length in the context of agglomeration economics later in this chapter.

29 Professor Robert Adams, City of Melbourne, *Committee Hansard*, 18 February 2014, p. 9.

30 Infrastructure Australia, *Submission 2*, Attachment 1, p. 7.

31 Ms Jane-Frances Kelly, Grattan Institute, *Committee Hansard*, 18 February 2014, p. 54.

32 Ms Kate Roffey, Committee for Melbourne, *Committee Hansard*, 18 February 2014, p. 22.

33 Councillor Jackie Fristacky, City of Yarra, *Committee Hansard*, 18 February 2014, p. 47.

growth, new ways must be found to address the challenges of urban transport.³⁴ He emphasised that the future sustainability of cities is of critical importance given that over 50 per cent of the world's population live in cities. Up to 75 per cent of greenhouse gasses emanate from those cities while the GDP of most economies is driven by urban areas. Despite the need to ensure the sustainability of Australia's cities, he argued that the matter has been relegated to a state and local government discussion. Even then, cities are considered within the context of issues such as health, education, transport or land use rather than holistically.³⁵

3.22 According to the Moving People 2030 Taskforce, without significant reform, the compounded cost of every extra person on Australia's often at-capacity transport networks will impact on the employment opportunities, productivity and social well-being of the next generation.³⁶ Melbourne's train system is as a case in point. By 2016–17, some of the train lines will be at maximum capacity in peak hour. By 2021, the entire train system will be at maximum capacity.³⁷

3.23 Professor Currie from Monash University informed the committee that despite substantial growth in public transport services in Australia, mass transit in its cities had been significantly underfunded and required considerable investment. He emphasised the need for efficient transport modes such as railways, noting that the capacity of the proposed Melbourne Metro Rail would be equivalent to about five West Gate freeways full of traffic.³⁸ He argued that while the standard federal approach had been to leave public transport to state governments, public transport initiatives are projects of national significance which require federal involvement.³⁹ In the US, for example, federal funding for urban public transport systems is derived from a modest tax on fuel. Professor Currie noted that until cost-effective investment into current public transport systems takes place, Australia will continue to experience low public transport usage in the outer suburbs coupled with car domination and the consequent problems created for the inner suburbs.⁴⁰

Pricing mechanisms

3.24 One of the primary challenges in relation to financing public transport into the future is that of pricing mechanisms. The department noted that ticket revenue in

34 Professor Robert Adams, City of Melbourne, *Committee Hansard*, 18 February 2014, p. 9.

35 Professor Robert Adams, City of Melbourne, *Committee Hansard*, 18 February 2014, p. 9.

36 Moving People 2030 Taskforce, *Moving Australia 2013: A Transport Plan for a Productive and Active Australia*, 2013, p. 12.

37 Ms Kate Roffey, Committee for Melbourne, *Committee Hansard*, 18 February 2014, p. 19.

38 The Metro Rail Capacity Project, formerly known as Melbourne Metro, is a planned metropolitan rail infrastructure project. Up to 200,000 vehicles travel on the West Gate Bridge every day. Victorian Government, CityLink Tulla Widening Project Overview, http://www.transport.vic.gov.au/_data/assets/pdf_file/0013/120730/CityLink-Tulla-Widening-Project-Overview.pdf (accessed 6 November 2014).

39 Professor Graham Currie, Monash University, *Committee Hansard*, 18 February 2014, p. 2.

40 Professor Graham Currie, Monash University, *Committee Hansard*, 18 February 2014, p. 2.

Australia's public transport system has always fallen short of the cost of providing the service. Consumers don't pay any of the involved capital costs with the balance funded by state and Commonwealth tax payers.⁴¹ The true cost of service delivery is approximately four times the price that consumers currently pay in fares. Furthermore:

...fare recovery in Australian urban mass transit systems is already well below international benchmarks and continues to decline. A preliminary analysis by BITRE estimates that Sydney's mass transit system recovers 24 per cent of its operating costs through the fare box while Melbourne recovers at 31 per cent, while Perth recovers 38 per cent. For Canberra's bus only system, users pay only 17 per cent of operating costs.⁴²

3.25 According to TNR, the price that consumers pay for transport infrastructure and services has evolved 'haphazardly' and remains a legacy of the complicated layering of government responsibilities. With revenues, expenditures and pricing remaining a shared responsibility across various agencies at national, state and local government levels, there is little consistency and transparency in transport pricing in Australia today.⁴³ At the same time, there is competitive tension between the different modes of transport which is driven by a view that investment in one mode takes place at the expense of another. However, a holistic approach to transport pricing, with pricing signals that encourage greater use of public transport, can benefit all such modes because they stimulate the system as a whole to operate more efficiently. According to TRN:

The challenge, therefore, isn't just about the physical integration of public and private transport modes and infrastructure; it's demonstrating to the community the system-wide benefits of an integrated, transparent and mutually supportive approach to pricing.⁴⁴

3.26 The point was made that an integrated public transport system could play a key role in alleviating transport disadvantage and car dependence, thereby addressing a significant barrier to workforce participation and access to training and services.⁴⁵ An integrated approach that considered land use planning (including parking), employment and active travel (including walking and cycling) as well as road and rail is essential for productivity gains, income generation and quality of life in Australia's major cities.⁴⁶

41 Department of Infrastructure and Regional Development, *Submission 11*, p. 10.

42 Department of Infrastructure and Regional Development, *Submission 11*, p. 10.

43 Transport Reform Network, *Submission 32*, p. [2].

44 Transport Reform Network, *Submission 32*, p. [2].

45 UnitingCare Australia, *Submission 16*, p. [4].

46 Bus Industry Confederation, *Submission 17*, p. 5; Mr David Rice, Sustainable Transport Coalition of Western Australia, *Committee Hansard*, 19 February 2014, p. 1; Infrastructure Australia, Answer to question on notice taken during Senate Rural and Regional Affairs and Transport Legislation Committee Supplementary Budget Estimates Hearing, November 2013.

Maximising existing public transport resources

3.27 Another matter raised during the inquiry was the need to maximise existing public transport resources. Professor Adams noted that if public transport is to be a viable option in addressing congestion in Melbourne, a range of changes were required, including the need to improve rail system signalling to the metro link as well as effective and harmonised timetabling.⁴⁷ Yet, such improvements cannot take place in isolation. For example, to provide maximum efficiency in the context of Melbourne's public transport system, improved signalling needs to take place at the same time as grade separations and initiatives to address congestion on the CBD train loop.⁴⁸

3.28 Ms Roffey of the Committee for Melbourne also emphasised the need to consider what existing infrastructure can be used more efficiently. Of the transport situation in Melbourne, she noted that:

There are places where rail and tram just do not work. It is too expensive to put in a couple of kilometres of rail, but a bus that does a small loop is very effective. Unfortunately, we have buses that go all the way from Dandenong to the north of the city and that route just takes too long. But if you have small looping buses that link public transport conductivity nodes, I think we would have a much better system operating. At the moment, the buses, the trams and the trains operate independently of each other.⁴⁹

3.29 Harmonisation of existing public transport services was recognised as a key practical step towards an integrated transport system. A number of submitters argued in favour of a hub-and-spoke model which would permit greater complementarity between services and thereby enable commuters to catch a bus to get to a train to the city as opposed to driving a car.⁵⁰ As a case in point, Western Australia has a fully integrated public transport system which allows for centralised planning in relation to timetabling. The integration of the bus and train timetable enables complementarity of service. This system is further supported by a common ticketing system whereby passengers can catch a bus, train or ferry and transfer between them on the one ticket.⁵¹

3.30 However, complementarity is a particular challenge in Melbourne where respective timetables may not match or complement each other partly because each of the transport services are contracted to separate entities.⁵² The lack of coordination between these services demonstrates the extent to which the effective operation of each service depends on the other. In the case of Melbourne, the tram network cannot

47 Professor Robert Adams, City of Melbourne, *Committee Hansard*, 18 February 2014, p. 11.

48 Ms Kate Roffey, Committee for Melbourne, *Committee Hansard*, 18 February 2014, p. 19.

49 Ms Kate Roffey, Committee for Melbourne, *Committee Hansard*, 18 February 2014, p. 21.

50 Ms Kate Roffey, Committee for Melbourne, *Committee Hansard*, 18 February 2014, p. 22.

51 Mr Mark Burgess, Public Transport Authority of Western Australia, *Committee Hansard*, 19 February 2014, p. 31.

52 Ms Kate Roffey, Committee for Melbourne, *Committee Hansard*, 18 February 2014, p. 21.

work without an efficiently operated road network, and without a good road network, an efficient public transport network is not possible.⁵³

3.31 A major challenge in coordinating transport timetables is the impact of congestion. According to Mr Dennis Cliche, Chair of TRN, during peak periods, trams run late 25 per cent of the time as a consequence of road congestion.⁵⁴ Furthermore, complementarity is also made extremely difficult if not impossible when different services operate at different frequencies. For example, where trains run every 20 minutes and buses every 30 minutes.⁵⁵

3.32 Yet, practical steps can have a significant impact. A study commissioned by the Greater Shepparton City Council found that by increasing the frequency of passenger travel to Melbourne and improving timetabling, the uptake of passenger rail services by both business and leisure commuters increased. Other benefits from these practical changes included improved accessibility to public transport for the disabled and elderly, reduced vehicle congestion and emissions on the roads, increased population growth and with it increased investment in Greater Shepparton.⁵⁶

3.33 Another mechanism which seeks to address peak-hour traffic is that of providing free or reduced price tickets during pre-peak periods. In one such initiative, the Victorian government made train rides into the Melbourne CBD free to commuters before 7 am. According to Professor Adams:

Two thousand six hundred people took advantage of that. That was the equivalent of buying five new trains, which would have cost \$100 million. If you then take off the subsidy, which was \$15 million, you still have \$85 million in front.⁵⁷

3.34 Evidence suggested that demand elasticity for off-peak travel is typically up to two times higher than for peak periods. Therefore, peak-hour commuters are more likely to absorb fare increases than off-peak commuters. However, according to the Moving Australia 2030 Taskforce, for pricing to be an effective mechanism to balance demand, off-peak tickets have to be at least 20 per cent cheaper than the peak alternative.⁵⁸

3.35 TRN's Mr Cliche made the point that these initiatives use pricing and transparency of pricing as a signal to drive behaviour. Such initiatives lead to better utilisation of all transport modes and greater efficiency of services. To this end, what is important is to make the costs of the various modes more transparent and known to

53 Mr Dennis Cliche, Transport Reform Network, *Committee Hansard*, 18 February 2014, p. 24.

54 Mr Dennis Cliche, Transport Reform Network, *Committee Hansard*, 18 February 2014, p. 25.

55 Mr Dennis Cliche, Transport Reform Network, *Committee Hansard*, 18 February 2014, p. 26.

56 Greater Shepparton City Council, *Submission 45*, p. [2].

57 Professor Robert Adams, City of Melbourne, *Committee Hansard*, 18 February 2014, p. 12.

58 Moving People 2030 Taskforce, *Moving Australia 2013: A Transport Plan for a Productive and Active Australia*, 2013, p. 20.

commuters in order that they make informed decisions about transport modes and potentially modify their commuting behaviour accordingly.⁵⁹

Agglomeration economics

3.36 One means of maximising existing infrastructure resources which received attention during the inquiry was that of agglomeration economics (AE). AE describes the benefits that arise from special concentrations of economic activity.⁶⁰ A 2013 report on the contribution of public transport to economic productivity made the following observations:

PT [Public transport] can both encourage and enable increased employment in central city locations, by reducing commuting costs in congested transport networks and freeing up space that would otherwise be required for car parking. Through these two channels PT is able to make a somewhat unique contribution to economic productivity in denser urban environments.⁶¹

3.37 The committee heard evidence that by obtaining maximum use of existing infrastructure and related resources rather than constructing new infrastructure, savings can be achieved and public transport made more accessible. Professor Adams argued that if accommodation of up to eight storeys is constructed along railway lines in central Melbourne, 860,000 people can be accommodated within walking distance of railway stations.⁶² Furthermore, the savings that result from constructing housing units within existing infrastructure rather than on the fringes (where infrastructure needs to be built), is estimated at \$300 million per 1000 dwellings. In Melbourne, for every million people added to the city and accommodated within its existing infrastructure, the savings are estimated at \$110 billion.⁶³ Additional savings flow from this maximisation of available resources in areas such as property rates as the tax load is spread across a broader base as the population grows.⁶⁴

Public transport funding

3.38 Regional transit networks have traditionally been funded by government from consolidated government taxation revenue and market rate loans.⁶⁵ Evidence put to the committee suggested that Australian governments can no longer afford to continue relying on an allocation from general government funds for public transport

59 Mr Dennis Cliche, Transport Reform Network, *Committee Hansard*, 18 February 2014, p. 24.

60 Tim Hazledine, Stuart Donovan and John Bollard, *The contribution to public transport to economic productivity*, NZ Transport Agency research report 514, January 2013, p. 8.

61 Tim Hazledine, Stuart Donovan and John Bollard, *The contribution to public transport to economic productivity*, NZ Transport Agency research report 514, January 2013, p. 8.

62 Professor Robert Adams, City of Melbourne, *Committee Hansard*, 18 February 2014, p. 10.

63 Professor Robert Adams, City of Melbourne, *Committee Hansard*, 18 February 2014, p. 10.

64 Professor Robert Adams, City of Melbourne, *Committee Hansard*, 18 February 2014, pp 10-11.

65 Professor Newman, *Submission 36*, Attachment 1, p. 1.

improvements and infrastructure investments.⁶⁶ Infrastructure Australia also noted that there was a risk that Commonwealth infrastructure funding was seen as a 'gift' to assist in the delivery of a project or support a state rather than an exchange to improve national outcomes.⁶⁷

3.39 For these reasons, it was emphasised that alternative funding sources for public transport must be found alongside private sector contributions to financing transport infrastructure.⁶⁸ Whether Australians travel by public transport or not, the entire community still benefits from its existence and use by others. As the previous chapter has demonstrated, effective public transport has a direct impact on national productivity, global competitiveness and quality of life.

3.40 It was suggested to the committee that public transport has often 'taken a back seat' to roads because it can be difficult to establish how public transport will pay its way, particularly in the short term.⁶⁹ The greatest challenge is that of the ongoing operational costs of public transport.⁷⁰ The Committee for Melbourne argued that the construction of roads is comparatively easier than the establishment of public transport systems because a toll can be imposed on road use which is attractive to private investors who can potentially enjoy a return on their investment.⁷¹

3.41 Nevertheless, Curtin University's Professor Newman made the point that public transport was no different to freeways to the extent that neither modes pay for themselves unless proper charges are imposed. He highlighted that the public transport systems of Japan and Hong Kong not only pay for themselves but actually make a profit, derived from the payment of fares and application of the value capture method on properties constructed along rail lines.⁷²

3.42 The City of Yarra held the view that there was a huge 'catch-up' required in public transport and rail freight infrastructure across Australia because taxation treatment and investment has traditionally been heavily biased to favour motor vehicles at the expense of alternatives. It argued that this approach has left Australian cities, and the nation as a whole, economically and social disadvantaged.⁷³ It held the view that as the trucking industry has received the benefit of road infrastructure funding, taxation and other advantages, rail freight has suffered. The City of Yarra suggested that when external costs are included, road freight has expanded through the

66 Australasian Railway Association, *Submission 7*, Attachment 1, p. 3.

67 Infrastructure Australia, *Submission 2*, Attachment 1, p. 8.

68 Transport Reform Network, *Submission 32*, p. [2]; Australasian Railway Association, *Submission 7*, Attachment 1, p. 3.

69 Ms Kate Roffey, Committee for Melbourne, *Committee Hansard*, 18 February 2014, p. 16.

70 Ms Kate Roffey, Committee for Melbourne, *Committee Hansard*, 18 February 2014, p. 19.

71 Ms Kate Roffey, Committee for Melbourne, *Committee Hansard*, 18 February 2014, p. 21.

72 Professor Peter Newman, Curtin University, *Committee Hansard*, 19 February 2014, p. 11.

73 City of Yarra, *Submission 30*, p. 7.

use of hidden public subsidies which have led to a major decline in competitiveness and the use of rail freight while:

It is estimated that the additional cost to the community of funding road transport over public transport, is at least \$30 billion annually per annum.⁷⁴

3.43 RTBU argued that while public transport infrastructure received heavy investment during the post-war years, investment began to decline in the 1980s as public transport infrastructure spending came to be viewed as a cost rather than investment.⁷⁵ According to RTBU, in the immediate post-war decade, the total transport investment was 70 per cent of all non-primary investment. By the 1980s, this figure had fallen to 30 per cent and is now less than 10 per cent.⁷⁶

Implications of state government funding of public transport

3.44 The Committee for Perth held that any decision not to provide national funding to public transport is not only seriously remiss but will have long term negative consequences on the economic productivity, competitiveness and liveability of Australia's cities.⁷⁷ Similarly, the Committee for Melbourne held the view that:

The nation's competitiveness and attractiveness is dependent on the quality of this infrastructure and as national priorities compete, the role of the Commonwealth to provide efficient provision of infrastructure increases.⁷⁸

3.45 Professor Adams took the view that Australia's cities will undergo social and financial breakdown if federal funding is not invested into public transport. He explained:

If we decide that public transport is not worth investing in, very quickly our cities become less livable. We sit on that livability index – I do not want to flirt with Melbourne's livability – right on the cusp of losing that. If we start to get greater congestion and greater social disharmony, all of that will see us slide back on those scales.⁷⁹

3.46 The City of Yarra also challenged the argument that public transport should be exclusively a state matter and raised concern that such an approach has left investment in public transport neglected, especially when the Commonwealth has provided substantial funding for road networks in urban and regional areas. It was submitted that Australia is the only developed country in the world whose national government does not substantially fund urban public transport systems, and that this approach was to the disadvantage of public transport investment.⁸⁰

74 City of Yarra, *Submission 30*, p. 7.

75 Rail, Tram and Bus Union, *Submission 33*, p. 3.

76 Rail, Tram and Bus Union, *Submission 33*, p. 4.

77 Committee for Perth, *Submission 6*, p. 3.

78 Committee for Melbourne, *Submission 27*, p. [1].

79 Professor Robert Adams, City of Melbourne, *Committee Hansard*, 18 February 2014, p. 15.

80 City of Yarra, *Submission 30*, pp. 5-6.

3.47 UnitingCare Australia argued that federal funding for roads and not public transport provided a 'perverse incentive' to state governments to favour road projects over public transport infrastructure.⁸¹ UnitingCare Australia suggested that the East West Link project was a case in point. Similarly, the Committee for Melbourne argued that if directed just to roads, federal funding will 'skew' state priorities to major motorway projects whether they are the most important or not.⁸² It raised concern that the federal government's position on public transport may lead to an inconsistent approach to the evaluation, planning and funding of transport types, particularly urban public transport. As an alternative, it argued that Commonwealth funding should be based on the contribution of transport projects to the national economy and enhancement of national productivity.⁸³

3.48 A further point was made that, in terms of capacity spending, the federal government receives 80 per cent of national tax revenue in comparison to 16 per cent which goes to the states and territories and the 3.5 per cent to local government. The City of Yarra made the point that if state governments only receive 16 per cent of national tax revenue, they cannot be expected to fully fund rail.⁸⁴

3.49 According to the City of Yarra, while state planning processes repeatedly discuss the need to integrate transport projects with development plans, the 'scale of investment now required prevents meaningful delivery of these plans without federal Government contribution to public transport funding'.⁸⁵ It challenged the argument that public transport is too costly when compared to road transport infrastructure on the basis that it fails to properly cost externalities, opportunity costs and market distortion in favour of motor vehicles.⁸⁶ Furthermore, noting the need for a framework for cities to evolve, the City of Yarra made the point that in the 1930s, Melbourne's rail spine was double its current size and has contracted, particularly in regional areas, ever since. The rail network was established when Melbourne had a population of 300,000 whereas now Victoria is home to five million people.⁸⁷

Road user charges including congestion charges

3.50 Road user charges were recognised by some submitters as an important mechanism to address congestion and fund public transport investment. STCWA argued that state governments should plan location- and time-specific road user charges for all major cities as a means of congestion management.⁸⁸

81 UnitingCare Australia, *Submission 16*, p. [2].

82 Committee for Melbourne, *Submission 27*, p. [2].

83 Committee for Melbourne, *Submission 27*, p. [2].

84 Councillor Fristacky, City of Yarra, *Committee Hansard*, 18 February 2014, p. 51.

85 City of Yarra, *Submission 30*, p. 3.

86 City of Yarra, *Submission 30*, p. 7.

87 Councillor Fristacky, City of Yarra, *Committee Hansard*, 18 February 2014, p. 52.

88 Mr David Rice, Sustainable Transport Coalition for Western Australia, *Committee Hansard*, 19 February 2014, p. 2.

3.51 However, CSSA cautioned that any increased user charges for public transport would affect the disadvantaged and those on lower incomes who have limited capacity to pay for additional fees.⁸⁹ The City of Yarra also expressed concern that where road user charges are applied in the absence of any feasible public transport alternative, such charges 'operate as an unfair taxation mechanism' to those who already suffer the high economic costs of transport disadvantage.⁹⁰

3.52 However, ARA suggested that road user charges could be applied to fund public transport initiatives:

As demonstrated in Perth, a charge for road users (in this case through a parking levy) which can be used to fund public transport initiatives can be successfully. The broader issue of applying a charge to road users which could partly be used to fund public transport and manage congestion in city centres is something the Committee may wish to consider.⁹¹

3.53 The point was made by STCWA that while road user charges are a matter for state governments, the federal government could play an important role by developing guidelines for consistent nationwide application.⁹²

3.54 Some witnesses argued in favour of the introduction of congestions charge such as that applied in the London CBD. The committee heard evidence from Mr Philip Davies, former director of Transport for London who presided over the introduction of London's congestion charge. Mr Davies explained that when the congestion charge was introduced, traffic was almost gridlocked in central London with authorities facing growing pressure from businesses in the CBD to address the problem. The congestion charge was hypothecated to support the funding of 300 new buses and paid for the upgrade of the bus network. As a consequence of the charge's introduction, London's bus network was expanded to meet growing demand. The combined effect of such initiatives resulted in a 30 per cent reduction in congestion.⁹³

3.55 The London congestion charge currently generates almost £200 million a year of additional revenue for the city. Mr Davies noted that while congestion levels are now comparative to the pre-charge era, through investment in buses and other initiatives, the network is able to respond.⁹⁴

3.56 Congestion charging practices are also applied in Singapore and Norway. ARA explained that the Singapore congestion charge system, introduced in 1975, is

89 Catholic Social Services Australia, *Submission 8*, p. 3.

90 City of Yarra, *Submission 30*, p. 8.

91 Australasian Railway Association, *Submission 7*, p. 10.

92 Mr David Rice, Sustainable Transport Coalition for Western Australia, *Committee Hansard*, 19 February 2014, p. 2.

93 Mr Philip Davies, Transport Reform Network, *Committee Hansard*, 18 February 2014, p. 26.

94 Mr Philip Davies, Transport Reform Network, *Committee Hansard*, 18 February 2014, p. 26.

believed to generate \$150 million annually with all revenue reinvested into the city's transport system.⁹⁵

3.57 Professor Currie argued that some Australian cities including Sydney, Perth and Melbourne already apply similar charges to that of a congestion fee by way of parking levies. In Perth, revenue derived from the parking levy is directed to fund the public transport system. In Sydney, the parking levy is hypothecated to fund investment in suburban railway stations. However, in Melbourne, the \$50 million derived from parking revenue is directed to general revenue.⁹⁶

3.58 Professor Adams noted that a congestion tax should be considered as a mechanism to shift or spread the peak load over a greater part of the day.⁹⁷ Such a mechanism would encourage a change in behaviour whereby commuters leave for work earlier or later than the peak period. According to Professor Adams taking a modest 10 per cent of commuters off the roads (which generally happens during school holiday periods in capital cities) had a positive effect on the roads during peak periods.⁹⁸

3.59 The point was made, however, that greater flexibility in traveling times also requires substantial changes to work patterns and movement away from the standard working day.⁹⁹ The Hon. Alannah MacTiernan, federal Member for Perth noted that peak periods in Perth had been extended rather than flattened as a consequence of more flexible workplaces and the development of the night-economy.¹⁰⁰

Land value capture

3.60 As a method of deriving funding for public transport, land value capture was the focus of considerable discussion throughout the inquiry. Founded on an integrated approach to transport and urban infrastructure development, land value capture arguably provides a mechanism to accumulate revenue by bringing land value, transport and finance together. The concept of land capture is based on the principle that if the land values around new rail lines are included in any investment package, they can provide the basis for funding urban rail. The mechanism is based on evidence that land within the vicinity of urban rail is more valuable.¹⁰¹

3.61 Australia does not apply a value capture approach. However, value capture is applied in a growing number of other jurisdictions including North America, Hong Kong, the United Kingdom (UK) and Japan where strategic land-based levies, similar

95 Australasian Railway Association, *Submission 7*, p. 10.

96 Professor Graham Currie, Monash University, *Committee Hansard*, 18 February 2014, p. 7.

97 Professor Robert Adams, City of Melbourne, *Committee Hansard*, 18 February 2014, p. 12.

98 Professor Robert Adams, City of Melbourne, *Committee Hansard*, 18 February 2014, p. 12.

99 Ms Kate Roffey, Committee for Melbourne, *Committee Hansard*, 18 February 2014, p. 18.

100 The Hon. Alannah MacTiernan, Member for Perth, *Committee Hansard*, 19 February 2014, p. 20.

101 Professor Peter Newman, *Submission 36*, p. [2].

to other utilities and infrastructure, are applied.¹⁰² It was applied in the US to build railway systems and in the UK to fund half of the Crossrail system. Over the next 30 years, infrastructure funding in Manchester will be funded through land value capture.¹⁰³

3.62 Professor Newman described the land value capture method as a beneficiary payment rather than a tax. Studies he conducted in Perth considered factors including views, proximity transport, water and schools as determinants of land value. His work demonstrated that land value along the southern railway increased over a five year period by 42 per cent in an area within 1200 metres of railway stations all the way down the line. The study demonstrated that 60 to 80 per cent of funding for the southern railway could have been derived from land value capture.¹⁰⁴ Professor Newman noted that in contrast, freeways did not have the same impact on land values. He explained how the mechanism can be applied:

That value increase translates into a range of rates and taxes, which are land based: the stamp duty, the land taxes, the federal taxes relating to capital gains tax and even the GST on the sale of a property. These are going to increase naturally, because the value is going up. If you do not build the infrastructure, they do not go up by that special extra amount. So all you need to do is hypothecate them, which is the word the treasuries do not like. In fact, in this state, they like this concept, because it is a new source of revenue that can enable this to work.

So what you do is you find out exactly where the values are going to go up and you can do that scientifically. You then enable the extra value flows that are going through all those taxes to be drawn into a fund. That fund can be used to finance the railway. And it goes on, so it can finance the operations. So, you can actually build, own and operate with a private sector involvement – if you want to – or it could be done by the state raising the finance from that. If you want to go down the track of separating it completely – so that only the money is raised and then that is used and given to a consortium that wants to build, own and operate and do land developments around stations – the whole thing could be off the books and not affect credit ratings at all.¹⁰⁵

3.63 Professor Newman noted that value capture not only provided a means of raising revenue but also contributed to productivity in general given that it helps to prevent suburban sprawl.¹⁰⁶ However, the key to attracting finance is by packaging land and railway infrastructure development together. Without growth in both the demand for land development and a railway, it is difficult to raise the finance.¹⁰⁷

102 Professor Peter Newman, *Submission 36*, Attachment 1, p. 1.

103 Professor Peter Newman, Curtin University, *Committee Hansard*, 19 February 2014, p. 9.

104 Professor Peter Newman, Curtin University, *Committee Hansard*, 19 February 2014, p. 10.

105 Professor Peter Newman, Curtin University, *Committee Hansard*, 19 February 2014, p. 10.

106 Professor Peter Newman, Curtin University, *Committee Hansard*, 19 February 2014, p. 10.

107 Professor Peter Newman, Curtin University, *Committee Hansard*, 19 February 2014, p. 12.

3.64 Councillor Bradley Pettitt, Mayor of the City of Freemantle recognised the significance of value capture as a means of funding public transport. However, he cautioned that such a mechanism would be challenging in Perth because the relationship between density and land value is not straightforward for reasons including building costs.¹⁰⁸

3.65 ARA supported value capture, arguing that light rail has proven to be a 'powerful tool' for urban renewal and regeneration with studies demonstrating a demand for commercial and residential property closer to train stations.¹⁰⁹ It noted that the preference to live in close proximity to existing train stations can be capitalised on through transport-oriented developments, while system extensions and new stations can implement value capture mechanisms to assist with funding.¹¹⁰

3.66 Professor Currie also argued in favour of a user-pays system or rather the-one-who-benefits-pays system. He noted evidence indicating that in Australia's cities, the public transport user was not always the person who benefited the most, as all traffic users enjoy considerable benefit from public transport. The greatest area for capturing the value of public transport is the CBD. He explained:

We have some of the most expensive real estate in Australia in the Sydney and Melbourne CBDs. The reason it is expensive is that the commercial entities who pay for it make profits out of being there, because being next to similar businesses is a very effective way of doing business – you can really make money and be efficient. Those CBDs only exist because of railways, yet those people who benefit do not pay any money towards the railways. They do contribute very indirectly through taxes, but everybody pays the same taxes. So I think there is a role for moving closer towards what I call value capture – the people who are benefiting paying.¹¹¹

3.67 TRN also argued the case for a user pays system as long as it was hypothecated. That is, that the funds derived from an extra charge to use the particular transport mode are channelled exclusively into the funding of transportation improvements.¹¹²

Committee view

3.68 The costs and impact of urban congestion on the economic productivity of the nation, as well as the health and wellbeing of its citizens, require immediate address. Without an integrated approach to urban development which incorporates transportation planning, congestion is set to continue undermining national productivity.

108 Councillor Bradley Pettitt, Mayor of the City of Freemantle, *Committee Hansard*, 19 February 2014, p. 55.

109 Australasian Railway Association, *Submission 7*, p. 7.

110 Australasian Railway Association, *Submission 7*, p. 7.

111 Professor Graham Currie, Monash University, *Committee Hansard*, 18 February 2014, p. 2.

112 Mr Dennis Cliche, Transport Reform Network, *Committee Hansard*, 18 February 2014, pp 25-26.

3.69 This report has detailed some of the many benefits of public transport which extend far beyond the immediate issue of transporting people efficiently from one place to another. As transport infrastructure projects can have a significant economic, social and environmental impact on the national economy and the quality of life of citizens, these factors must be considered as part of any project cost-benefit analysis.

Recommendation 3

3.70 The committee recommends that, given the productivity cost of capital city congestion, all levels of government interested in increasing national productivity consider backing solutions to congestion, including public transport.

Recommendation 4

3.71 The committee recommends that when addressing congestion and other transport problems, a range of reasonable solutions be examined, including the publication of cost-benefit analysis, before decisions on funding are made by government.

Recommendation 5

3.72 The committee recommends that smaller cost projects, especially so-called smart projects involving the more efficient use of existing infrastructure, or the more effective integration of routes and modes, be prioritised according to the positive benefits they produce.

Recommendation 6

3.73 The committee recommends that the Australian Government fund transport – including road and rail projects – on a mode-neutral basis, based on assessed merit.

Recommendation 7

3.74 The committee recommends that the Australian Government take a leadership role on urban policy, working with the states and territories, given the strong link between transport and urban planning.

**Senator Glenn Sterle
Chair**