Submission to the Senate Rural and Regional Affairs and Transport References Committee on the

Role of Public Transport in Delivering Productivity Outcomes

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1. Executive summary

Cities are the powerhouses of the economy. They concentrate 80% of the world economic output (UNEP, 2011). Efficient mobility in cities creates economic opportunities and social integration, enables trade, and facilitates access to markets and services.

Green growth with public transport

UITP, Messages for the G20 Development Working Group, 2012

This submission is based on research and reports which examine how urban public transport in Australia's major cities affects national productivity. It touches on the planning, delivery and funding of public transport projects and the relationship between the three tiers of Australian government. Urban transport in Australian cities is an essential component of national economic performance. Yet in global terms we perform poorly in this vital area. On average, our city public transport systems account for less than 12% of daily journeys. In cities with similar demographics, for example in Canada, the modal share for public transport is 30% and above. Operating cost recovery from the fare box revenue is equally uncompetitive in global terms. Our city public transport operators are lucky to cover more than 25% of operating costs where relative international comparisons show recovery ratios in excess of 60%. Taxpayer subsidies for day-to-day operations are a significant and growing element of governmental expenditure and, by international standards, give Australia a poor economic and productive return. And public transport fares per kilometre of travel in Australian cities are amongst the highest in the world. In a rapidly expanding intelligence-based global economy we risk becoming increasingly uncompetitive through poor urban transport productivity.

The changing demographics and employment dynamics of Australian urbanisation are examined against the prerequisites for modern 21st century productive, efficient and dynamic cities. The Coalition's revised funding contribution model for road and urban transport projects will not alter this dynamic but there is a need for a more innovative approach to infrastructure funding.

The final recommendations suggest:

- federal government consider developing an overarching, holistic urban transport strategy for our major conurbations to address the growing issues of urban growth, mobility, economic productivity and environmental sustainability
- future transport infrastructure developments must embrace a holistic approach to urban mobility based on intelligent and innovative land-use planning
- the right balance must be found between road and rail/bus projects with the emphasis on long-term urban transport efficiency and city productivity rather than short-term political and financial expediency
- fiscal and budgetary constraints at all levels of government demand the prudent and effective allocation of scarce funds so allocations should favour transport projects which bring the greatest economic, social and environmental benefits

- developing innovative funding models which monetise the specific advantages of a project including user pays, value capture and intelligent PPP schemes to commercialise public transport investment, particularly where improved cost recovery and productivity can be achieved as a by-product
- government capital be "recycled" from old assets into new
- transport project funding through conventional government debt or a new class of "infrastructure bonds"
- the introduction of urban congestion charges as a deterrent to urban car use, to raise additional governmental revenue and encourage public transport ridership

2. Integrated approach to address congestion in cities

No one city is the same. Some planners are already well on the road to effective transport planning that integrates all aspects of urban living. Others are struggling with internal silos that prevent holistic thinking around transport improvement aligned with other social factors. Many know what is required but have yet to put in place the necessary infrastructure strategy that will support the free flow of urban transport, keeping the arteries of commerce and community healthy and capable of delivering the city's lifeblood—its people.

Urban transport: The beating heart of city productivity
Capgemini Consulting Group 2007

Land use planning is essential for effective urban development encompassing community liveability, environmental sustainability and long-term local and regional economic efficiency. A foundation component of modern land use planning is a holistic, integrated transport strategy with coherent policies and implementation plans. Australian governments at all levels have been slow to adopt this concept and in many cases transport policy has taken a back seat. Urban sprawl has developed around major cities with little thought for mobility other than by car. This results in transport infrastructure and services forever playing "catch-up" often at high cost with sub-optimal solutions.

There are emerging constraints on the capacity of cars to provide the same level of connectivity as in the past. Congestion costs are rising. The "avoidable" cost of congestion in Australia's capital cities was estimated at $9.4 billion in 2005, and projected to escalate to more than $20 billion by 2020. While there is not yet evidence of a dramatic increase in individual commuting times, both morning and evening traffic peaks are getting longer. Demand for passenger transport is expected to rise in line with population growth in coming decades, and demand for freight transport is expected to increase much faster (at average rates of 3.5 per cent a year until at least 2030). Unless congestion is managed effectively, this will add significantly to business costs

The current Australian political structure based on three-tier government affects productive and effective urban transport policy development and outcomes. In particular the responsibility for land transport infrastructure and investment is split between each level of government. Cooperation between

federal, state and local governments and associated departmental bureaucracies is required to plan, fund and execute significant transport projects. Political grandstanding and inter-governmental bickering can result in inefficient deployment of scarce resources to the detriment of national, regional and local economies.

The Department of Infrastructure and Regional Development is working with the Deputy Prime Minister and Minister, the Hon Warren Truss MP, to update the Nation Building Program to reflect the new government's commitments for land transport infrastructure. A number of projects under consideration include road and rail links within urban areas which are important for both intra and inter urban mobility.

Infrastructure Australia (IA) is currently accountable to the Federal Government for the prioritisation of infrastructure investments, which at present includes major public transport projects. It also advises governments, investors and infrastructure owners on a wide range of issues including Australia's current and future infrastructure needs, mechanisms for financing infrastructure investments, policy, pricing and regulation and their impacts on investment and on the efficiency of the delivery, operation and use of national infrastructure networks. The Federal Government has recently introduced legislation which could alter the dynamic of the relationship between IA and government and other stakeholders which may prescribe its activities in relation to urban public transport.

In the past it is evident that there has been little connectivity or synergy between federal, state and local government transport planning processes. Each level of government appears to have developed policies and plans in relative isolation with only cursory references to the practicalities of project prioritisation, timing, implementation and funding. In particular, there is little evidence that federal government has developed an overarching strategic approach to address the vital issues of urban growth, city mobility, economic productivity and environmental sustainability. There is a strong case for a holistic urban transport planning strategy for our major cities.

3. Social and environmental benefits of public transport vs. roads

I do not support - and I have not adopted - a 'road versus rail' approach to transport planning.... Instead of favouring one mode over another, I have looked for the right combination of modes that offer the best options for meeting Melbourne's east-west transport needs....my recommendations.... I believe.... deserve fair consideration as a balanced and measured response to tackling some of Melbourne's major transport dilemmas.

Investing in transport

Sir Rod Eddington for the Victorian Government, 2008

The bigger the demand for road use for travel purposes, the bigger are certain external costs borne not by the individual road user, but by others. Public transport also generates some, but not all, of these externalities and typically at much lower levels per passenger carried. Stakeholders have submitted arguments that the full social costs of road use are a relevant consideration in

setting transport fares and subsidies. Some have called for Government to give consideration to road user charges. Government funding is typically involved at both the infrastructure construction stage and the ongoing operations stage for new transport infrastructure. Its effectiveness in delivering net social gains may depend on the split between the two. Because the full social costs of road use are not faced by road users, road use is higher than it would otherwise be. It grows faster, as does the demand for additional road infrastructure. Ideally, the price faced by the user of each mode would include all of the costs that vary with greater use of that mode – the marginal social costs, comprising both marginal private costs and marginal external costs.

Subsidies and the social costs and benefits of public transport

Centre for International Economics for the NSW Government, 2001

One basic problem in transport investment analysis is the inconsistency in evaluation methods for assessing the overall future benefits of a range of options for alternate transport infrastructure projects. For example both Westconnex in Sydney and the East-West Link in Melbourne have been evaluated as stand-alone projects, rather than as one of a number of options for alternative investments in possible heavy or light rail, bus rapid transit, dedicated bus lanes and/or combined mode transport corridors. This probably reflects both the political element of sponsoring mega-transport projects and government's fixation on debt-aversion. Private sector lobbying for road infrastructure investments through PPP models has hypnotised governments into promoting a number of poorly planned projects, particularly road toll tunnels, which have significantly underperformed in both financial and transport terms.

Cost-benefit analysis (CBA) is widely recognized to be helpful, even indispensable, for making good decisions on what transport projects to fund. It essentially aims to figure out which projects offer the best value for money, one of the core criteria for making decisions. However, the practical relevance of cost-benefit analysis does not always live up to its appeal in principle. One problem is that there is disagreement about what to include in both the costs and the benefits side of the analysis, so that value for money is not always a fully transparent concept. A second problem is that value for money is only a partial criterion for decision-making, leading to disagreement about the relative importance of the results from CBA compared to other inputs into the decision-making process.

In essence future transport infrastructure development must be guided by a holistic approach based on intelligent and innovative urban strategic land-use planning. As public transport is more efficient and environmentally sustainable than the private car, the right balance must be found between road and rail/bus projects. The emphasis must be on long-term urban transport efficiency and city productivity rather than short-term political and financial expediency.

4. National significance of public transport

Australia has been a primarily urban nation for much longer than the United States, yet often we do not seem to recognise this reality. Even with the large contribution of mining and agriculture to national wealth, 80 per cent of economic activity takes place in Australia's major cities.

Public transport and well-functioning cities

Jane-Frances Kelly and Peter Mares, Grattan Institute, 2013

Most Australians live and work in cities. After 1980 the service sector began to replace manufacturing as the main source of new jobs in Australia. Combined with factors such as traffic congestion and rising fuel prices, there was move away from outer suburbs to CBDs and inner suburbs as places to live and work. Much recent economic research ***(Graham 2006; Glaser, 2011; Troika, 2011)*** demonstrates that bringing firms closer together increases productivity. Cities and nations, businesses and individuals stand to gain from the economic benefits of agglomeration. The combination of residential patterns, distance to work, social and leisure activities and the highly variable access to public transport systems in Australian cities produces dissimilar levels of car ownership in different suburbs. The further from the centre of the city, the more cars people own. ***(Currie and Senbergs 2007***).

There is a close relationship between the structure of the economy, the nature of transport systems and the shape of cities. For the economy to function efficiently, these three things need to be in tune. In the 20th century, the outward spread of residential neighbourhoods was compatible with the dispersion of manufacturing into suburban locations, since the rise of the car increased mobility and efficiently connected workers and jobs. In the 21st century, however, the established structure of our cities and their transport systems is less well suited to the needs of the economy. This is not just a shift from manufacturing to services. More significant is a rising level of knowledge-intensive activity in all sectors of the economy, which increases the importance of efficiently connecting firms, jobs and residents.

The more knowledge intensive the economy, the greater the premium is on skills. Since the vast majority of knowledge-intensive economic activity takes place in Australia's cities, the productivity of our economy depends on how well our cities link workers with employers and businesses with one another. Improving these linkages has the potential to increase productivity and national prosperity making Australia a more attractive destination for global talent and international firms.

If current settings remain unchanged, Australian cities are likely to continue to spread outwards, further separating places of residence and places of employment. This will discourage the growth of deep labour markets, and the productivity benefits they bring, by diluting both workers access to jobs and employers access to workers.

Transport improvements can expand labour market catchments, improve job matching, and facilitate business to business interactions. Transport's contribution to such effect is most significant within large, high-productivity

urban areas [of the UK]… [Transport also improves] the functioning of labour markets, increasing labour market flexibility and the accessibility of jobs. Transport can facilitate geographic and employment mobility in response to shifting economic activity e.g. in response to the forces of globalisation, new technological opportunities, and rising part-time and female participation in the labour market.
The Eddington Transport Study, the Case for Action
Sir Rod Eddington for the UK Government, 2007

5. Federal Government public transport funding policies

The funding of major transport infrastructure projects in Australia has long been a contentious issue. Generally there has been a degree of flexibility based on the funding requirements of each individual project. In the past this has been negotiated between federal, state and territory and occasionally local governments. For example, the Gold Coast Rapid Transit (Light Rail) is funded by contributions from the Federal and Queensland Governments and the Gold Coast City Council.

Urban public transport development, project planning and implementation have always been a state government responsibility. However in the past public transport projects vetted and approved by IA have traditionally attracted federal funds, usually to the extent of a 50% contribution to government's share of the project costs. The funding of federal road network projects has also traditionally been shared with the states on a 50/50 basis.

The current Coalition Government has implemented a different funding formula for these two infrastructure categories. They have indicated federal funding will now cover 80% of national road network projects with the states providing just 20% of the costs, but federal government will no longer contribute towards urban public transport projects.

This has led to a degree of uncertainty of the role of IA who were, in essence, acting on behalf of the federal government as the approval authority for a number of major urban public transport investments. Currently the role, relationship and authority of IA is under review and the status of a number of pipeline urban transport projects is yet to be determined.

Philosophically it can be argued that the federal government has little part to play in planning or developing and therefore funding urban public transport infrastructure which lies squarely in the aegis of state governments. In any event fiscal and budgetary constraints at all levels of government demand the prudent and effective allocation of scarce funds. Government investment should favour transport projects which bring the greatest economic, social and environmental benefits.

In particular, there should be greater emphasis on developing innovative funding models which monetise the specific advantages of a project. User pays schemes and value capture arrangements from those institutions, corporations and organisations who benefit with enhanced property and trading returns flowing from the provision of improved transport infrastructure should help

pay for it alongside those who actually use it. Where possible intelligent PPP schemes should be examined to commercialise public transport investment, particularly where improved cost recovery and productivity can be achieved as a by-product.

There is also an argument that government capital should be "recycled" from old assets into new. Governments can borrow at finer rates than the private sector through conventional debt or a new class of "infrastructure bonds" to fund long-term assets, particularly those which will substantially enhance the economic efficiency and productivity of our cities.

There needs to be a debate about quality of debt. If that debt is used for building infrastructure like what we're standing on now then that's a positive thing. Borrowing to improve roads and infrastructure – that's valuable and more high-quality debt.
Why the Coalition is pouring money into road infrastructure
Rick Sawers, National Australia Bank, Australian Financial Review, 19 September 2013

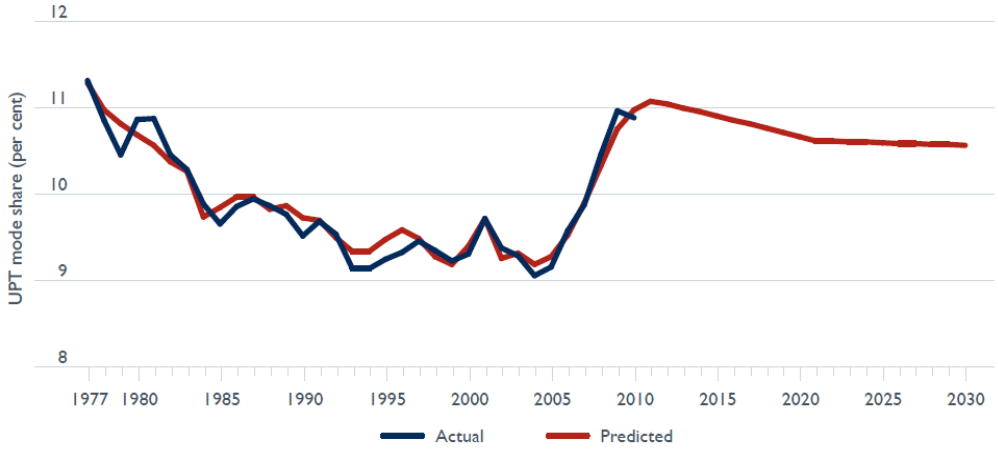
6. Implications on user charges of State public transport funding

The drain on public sector budgets and the cost to taxpayers from building and operating urban transport systems are both high. Each year, the public sector spends over $2 billion building and maintaining urban roads and up to $3 billion subsidising public transport services. Together, these amount to more than $900 a year for each household in Australia. While governments levy a range of taxes, fees and charges on drivers, their vehicles and the fuel they use, the revenue obtained (over $9 billion) is unrelated to public expenditure on transport, let alone urban transport.
Urban Transport
Industry Commission, report for the Australian Government, 1994

This report was published 20 years ago yet the situation in Australia has changed little. Undoubtedly the figures will now be larger. In the five main Australian cities public transport fare box recovery ratio (the fraction of operating expenses which are met by the fares paid by passengers) hovers around 25% or less. This ratio compares unfavourably with many international cities with similar demographics. For example, Toronto recovers 73%, Vancouver 52% and Boston 44%. In most Australian cities over the last few years, fare increases have outstripped inflation by a considerable margin. For example, in South East Queensland, fares have almost doubled over the past six years. Yet the recovery ratio has not improved, suggesting that public transport operating costs have also been racing ahead of inflation. Taxpayer subsidisation of day to day public transport operations remains a major and growing budgetary expense at both state and local government level.

By international standards the utilisation of public transport in our cities is also relatively low. The diagram below shows the historical and forecast modal share of urban public transport (UPT) in Australian cities.

Figure ES-5a Forecast UPT mode share, metropolitan Australia



(Source: Bureau of Infrastructure, Transport and Regional Economics Public transport use in Australia's capital cities: Modelling and forecasting, 2013)

This graph shows that, if there is no radicle improvement in the provision of UPT services, modal share will actually drop by 2030. Again, international comparisons are educational with UPT modal splits for a number of Canada's major cities consistently over 25%.

Funding projects to deliver new and upgraded urban public transport infrastructure sits outside the "user charges" equation. Since no public transport operation in Australia comes close to covering operating costs there is no internal financial capacity to generate reserves for new or even to upgrade infrastructure. While this dynamic persists any change in the source of funds for capital works on public transport infrastructure will have little direct effect on public transport fares.

The current trend to build new road infrastructure through PPP or even government funded projects with the inevitable user pays (toll) revenue recovery model by either public or private sector road operator means that journeys within urban areas by private vehicle travel will, on average, become more expensive. The introduction of a politically sensitive "urban congestion charge", successful in a number of cities including London and Singapore, could also increase the costs of urban car use, raise additional governmental revenue and encourage public transport ridership.

7. Conclusions and recommendations

This submission suggests that there is considerable evidence that urban public transport in Australian cities is well below the standards required to deliver the improvements in national productivity required to keep pace in a competitive, intelligence-based global economy. Summary conclusions are that there is:

- a lack of connectivity or synergy between federal, state and local government transport planning processes

- little evidence that federal government has developed an overarching national strategic approach to urban growth, mobility, economic productivity and environmental sustainability
- disagreement about the relative importance of the results from CBA in evaluating urban transport projects compared to other inputs into the decision-making process
- a close relationship between the structure of the economy, the nature of transport systems and the shape of cities with these three things in tune for the economy to function efficiently
- a continuing tendency for Australian cities to continue to spread outwards, further separating places of residence and places of employment if current UTP policy and practice do not improve
- a risk to the growth of deep labour markets and the productivity benefits they bring, by diluting both workers access to jobs and employers access to workers
- little part for the federal government to play in planning or developing and therefore funding urban public transport infrastructure which lies squarely in the aegis of state and local governments
- poor public transport fare box recovery ratio which hovers around 25% or less that compares unfavourably with many international cities with similar demographics
- major and growing budgetary expense requiring increased taxpayer subsidisation of day to day urban public transport operations
- no internal financial capacity for UPT to generate reserves for new or even upgrade infrastructure so changes in the source of funds for capital works will have little effect on public transport “user charges”

Recommendations include:

- federal government consider developing an overarching, holistic urban transport strategy for our major conurbations to address the growing issues of urban growth, mobility, economic productivity and environmental sustainability
- future transport infrastructure developments must embrace a holistic approach to urban mobility based on intelligent and innovative land-use planning
- the right balance must be found between road and rail/bus projects with the emphasis on long-term urban transport efficiency and city productivity rather than short-term political and financial expediency
- fiscal and budgetary constraints at all levels of government demand the prudent and effective allocation of scarce funds so allocations should favour transport projects which bring the greatest economic, social and environmental benefits
- developing innovative funding models which monetise the specific advantages of a project including user pays, value capture and intelligent PPP schemes to commercialise public transport investment particularly where improved cost recovery and productivity can be achieved as a by-product.
- government capital be “recycled” from old assets into new

- transport project funding through conventional government debt or a new class of “infrastructure bonds”
- the introduction of urban congestion charges as a deterrent to urban car use, to raise additional governmental revenue and encourage public transport ridership

Australia is facing a significant global challenge to improve the productivity and economic efficiency of its cities. Major improvements in public transport will be a vital element in this task. We must look to world’s best urban transit practices as benchmarks for success.