

Inquiry into the Investment of Commonwealth and State Funds in Public Passenger Transport Infrastructure and Services

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Senate Standing Committee on Rural and Regional Affairs and Transport
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Terms of Reference

The investment of Commonwealth and State funds in public passenger transport infrastructure and services, with reference to the August 2005 report of the House of Representatives Standing Committee on Environment and Heritage, Sustainable Cities, and the February 2007 report of the Senate Standing Committee on Rural and Regional Affairs and Transport Committee, Australia's future oil supply and alternative transport fuels, including:

1. an audit of the state of public passenger transport in Australia;
2. current and historical levels of public investment in private vehicle and public passenger transport services and infrastructure;
3. an assessment of the benefits of public passenger transport, including integration with bicycle and pedestrian initiatives;
4. measures by which the Commonwealth Government could facilitate improvement in public passenger transport services and infrastructure;
5. the role of Commonwealth Government legislation, taxation, subsidies, policies and other mechanisms that either discourage or encourage public passenger transport; and
6. best practice international examples of public passenger transport services and infrastructure.

For most of these areas of investigation I am not qualified to make a submission. However, I have made some comments on how projects requiring Commonwealth funds should be evaluated. Most of my comments relating to my personal experience and investigations relate to Melbourne and Victoria, where I reside and have the most knowledge about.

What Can the Federal Government Do?

Most aspects of public transport are in state hands for planning, funding, and implementation and it is these governments that will have the biggest impact on the quality of the outcomes. Despite this, the Commonwealth can help. It does set some standards and policies that relate to transport and makes legislation and regulations that may impact transport operations (Perhaps it should have a bigger role in harmonizing these). It also provides industry support, subsidies, and grants on a selective basis. Finally, it does allot grant money directly to states for specific projects.

In light of this, the federal government, when it examines state requests for project funding, should ensure that it only funds programmes that meet specific objectives relating to efficient land use and reductions in greenhouse emissions. It should ensure that state projects are part of a Strategic Plan with a worthwhile Vision for the future.

For much of the following I am discussing aspects of transport and its use. At times it might seem not directly related to what the federal government can do, but I hope that it serves to illustrate the types of projects where federal funding should be selectively directed.

Setting a (New) Vision

To better achieve this end, the Commonwealth (in conjunction with COAG) could sponsor a Vision for the future of Australia. Part of this Vision would be to reduce transport greenhouse emissions through the replacement of inefficient car travel with more efficient public transport and to make public transport electric as much as is useful. In achieving this objective, the government needs to ensure that it increases the amount of 'green' renewable power available and facilitates the phasing out of inefficient, dirty, coal-fired power stations (new plants replacing the old, inefficient stations rather than adding to them).

Another part of this Vision could come through the federal government sponsoring a 'better cities' programme with pilot projects for improved public transport, transport interchanges, and planned suburbs.

The Current (Economic) Vision

Much of the nation's planning is based on a perception that a growing economy and workforce is 'good' and beyond any questioning. However, in following this approach, we have seen increasing pressure on water and land resources, bloated cities, and inadequate infrastructure to support this population increase. We are living unsustainably and our greenhouse emissions are increasing, instead of declining steeply. I would propose that this obsession with the economy is bad and we should look instead to a new metric of 'success' and 'progress' - Gross National Happiness (rather than Gross National Income and Gross National Product)¹.

Land-use Planning and Future Cities

Land-use Planning is the biggest issue. We need to address how we can create resilient cities to respond to the challenges of peak oil and climate change confronting our nation. Whatever we build now, we will have to live with for many years. Land use planning is vital, yet the state and federal government focus is on growth in economy and population. Has anybody suggested a target or ideal level for Australia's population ?

In Victoria, our state government is planning for a population in Melbourne of over 5 Million people. As a consequence, we will consume more of everything (land, food, water, roads, and electricity) - all this in a carbon-constrained world. Thus, land use planning becomes critical, as well as conserving liquid fuels. The historic urban sprawl is inefficient and must cease. By converting arable land to suburbs, we are running out of land for food production and moving it further way from population centres. In this planned future, just to survive, we will need much more energy and water efficiency in how we produce and consume.

The urban sprawl, by allowing for a high proportion of land to be reserved for roads and car parking, denies local authorities use of that land for other public purposes or from gathering municipal rates from that land. By building outwards and not upwards and by allowing building blocks to be so large, with large, inefficient dwellings on them, makes for future problems.

If per-capita electricity use continues to increase (eg for desalination plants), then renewable energy production must increase at a very high rate to make up the growth required and also to replace some of the existing dirty brown coal electricity. In the transport sector, to turn from scarce liquid fuels to

¹ The values and principles of GNH are roughly divided into the domains of psychological well-being, health, time use, education, culture, good governance, ecology, community vitality, and living standards. Some are measured through surveys, while there are objective measurements for others. References: <http://www.grossinternationalhappiness.org/gnh.html> and <http://www.grossnationalhappiness.com/gnhIndex/introductionGNH.aspx>

electricity for public transport and cars means a huge increase in green electricity production if we are to reduce greenhouse emissions from transport.

We have yet to come to terms with the extent to which global change will shape our cities and their livability. Our transport infrastructure planning, apart from roads, seems to be a year-to-year process now. We do produce strategic plans for public transport in Victoria, but a new one seems to come out nearly every year.

A problem with our current approach is that we build residential suburbs without reference to where their inhabitants will work. The solution is not to build long distance expressways, but better planning. The Commonwealth can assist in this through thoughtful choice of location of government buildings, decentralised to regional centres and Principal Activities Districts. That is, to places where the new homes are being built, not just the geographic centres of capital cities. This will facilitate implementation of higher capacity public transport hubs.

The Demand for Public Transport

NSW and Victoria, especially, had been running down their public transport networks in previous decades, as patronage was falling with the up-take of cars and enthusiasm for freeways. However, patronage growth in recent years in both city and inter-urban areas has caught the public transport planners by surprise. They were sure that this new rapid growth would only be temporary, yet it has continued with no signs of slowing, even when congestion on trains and trams has angered some of the commuters. The current networks are overcrowded and piecemeal fixes are running into barriers that can only be overcome with large and strategic multi-year investment.

Public transport in other states has been similarly wound back from the 1970s, with much latent demand now surfacing and much infrastructure catch-up to do. Most state governments have acknowledged this, but setting priorities and finding the funding is a challenge. This is an area where the federal government could provide much help with funding for the strategic projects that shape the cities.

The demand for passenger transport is likely to rise in the short term, as the quality, reliability and value for money of public transport improves and the cost of motoring increases.

What do People want from Transport ?

People's transport needs tend to relate to their ability to undertake any journey whenever they need to, in comfort and safety, at a reasonable price, and relatively quickly. A personal car is a good way of doing this as, even though it costs a lot of money to own a car, once you have cost justified getting one, the marginal cost of using it makes it cost competitive to use for every journey.

So public transport needs to close the performance gap with the car through: more frequent services covering longer hours and on all days of the week (ultimately, without the need for timetables), better interchange between transport modes, better coverage to all locations, and improved safety while waiting for transport and while travelling on it.

We also need to make the transport interchanges more attractive to public transport users. If they form part of a major retail or commercial centre, then they can be a destination in their own right and afford improved personal security in the numbers of people moving through them.

In the outer suburbs, public transport is problematic, often left off the plan until the population has risen to a level that will justify its provision. The consequence is that new residents come to the conclusion that they will need a car for each household member of driving age. When the public transport is introduced later on, there is no one left to use it; all have cars.

One lower cost solution for these locations is to have smaller feeder buses that can bring public transport closer to homes and give a greater penetration to these suburbs, when the higher capacity trains and buses are far away.

Potential Passengers

In a city such as Melbourne, where about 90% of journeys are being made by car, a small modal shift to public transport (PT) can make a big difference in PT patronage, eg 2% of car journeys substituted by public transported would mean a 20% increase in public transport patronage. However, patronage will also be increasing from travel demand increases from population growth. Likewise car travel demand will continue due to changes to work and study patterns, the higher rate of car ownership, and urban sprawl to areas where there is no PT.

We need to examine why people drive. In many cases it is because they have a car already and the marginal cost of another kilometre is less than taking a public transport journey. Also, a car is always available (there is no wait and no hours / days of operation), a car is perceived to have better security than waiting at a PT stop, the car is comfortable and has no objectional fellow passengers, there are fast well connected routes available to the motorist. So the challenge to planners in moving people from car to public transport is to change the relativities by making one better or allowing the other to become worse by not solving all the congestion problems.

If governments do not spend much money, roads will become congested and car transport will be less desirable. Similarly, by allowing public transport to have dedicated corridors (such as the railways already have), ones that cannot be congested by cars, then speed of travel might encourage additional patronage.

It is observed in most countries that people do not really like buses, preferring vehicles on tracks (rail and tram), but they will use buses if they have no other choice. To cost justify tram and rail we need more compact cities and we stopped building them 60 years ago. This is why I say that much of the public transport solution is in land use planning and the design of suburbs.

The federal government, through COAG, might be able to set some standards for population density in new developments. More dense suburbs might be better able to support dense public transport corridors and resist pressures for three and four car households and freeway building.

The First Time Passenger

To encourage people to try public transport and then stick with it, we need to make their first public transport experience a good one. We need to give them information in advance on what options are available and how to use public transport. This includes route maps, timetables, instructions on how to buy tickets.

This later point can be problematic as each state has its own approach, eg time duration multi-mode tickets versus one mode point-to-point tickets. In addition, some systems have staff on the transport to sell tickets, while others have ticket machines at stops or on the transport itself, and some have the facility of buying tickets well in advance of use through shops. Ages and residential address requirements for concessional tickets and requirements for eligibility of students' tickets vary between states. How do they find out all of this ?

Many people have never used public transport and are not planning to as they have not yet been motivated to find out about it. What will it take to motivate them ? The Commonwealth Games in Melbourne was a valuable opportunity for new users to observe PT, as driving and parking were not feasible with the large crowds.

In looking at motivations and preferences, people generally say that they prefer trains and trams to buses because they think they are more reliable, the vehicles often have their own dedicated right of way, and are faster. Also trains are simple – it is easy to see where they go and where the station is located. A bus could turn off the main road and go anywhere (some collector buses wind around suburbs on very long journeys before reaching any destination). Sometimes bus stops are not marked and do not have timetables or route maps at the stops. Other people who prefer trains say it is because they are safer, greener, do not move from side to side in traffic, and offer a lot more room. People can get up and walk around and on longer journeys, there are toilets.

Freight versus Passenger Travel

We have not had a public discussion on whether all travel is ‘necessary’. For many planners, freight is deemed to be more essential than leisure transportation. They see one as necessary and urgent, while the other is discretionary and can be deferred. If that is so, then perhaps we need to separate freight transport from passenger transport into separate routes, for both road and rail.

Many motorists are fearful of heavy transports sharing ‘their’ roads. However, we can expect this mode to grow at a rate faster than car travel (see the Eddington Report - “Investing in Transport East West”). Likewise on rail networks, freight has different characteristics to passenger travel (to operate efficiently it needs to maintain a constant speed without stops and starts). We solve the problem now by pushing much of the rail freight into overnight off-peak periods or onto dedicated tracks. Perhaps the same can be done for road freight.

There is a growing capacity squeeze between public transport, cars, freight, and cyclists along arterials roads. It is getting much harder to add lanes and transit times are lengthening. We seem to base our road networks on moving vehicles rather than moving passengers. If, as part of our city planning, we introduce high density living along existing tram or bus routes, should we look to removing cars and freight from the public transport lane or else give a dedicated route to the PT ?

We could look to reducing the multiple handling of freight and the long freight distances. Currently grocery factories and importers have regional distribution centres and then supermarkets have their own distribution centres. Goods move from factory to distribution centre to distribution centre to store. Sometimes the journey is a long one, to ultimately return to a retailer close to the original source of the goods. In the future, we will need to look to reduced fuel use and not reduced people costs.

Some Barriers to Public Transport Use

One big barrier to public transport use is the concessional treatment of FBT on cars. This is a perverse subsidy in that it encourages people to buy cars and use them more than they otherwise might. This holds people back from greater public transport use.

A solution to this might be changing the system to be more like the UK one, which seems better targeted to achieving efficiency and lowering fuel use. The benefit is not related to the annual distance travelled, but to fuel efficiency. In the UK, this reform gave rise to many people giving up their company cars, others driving them for fewer kilometers, and others selecting vehicles that are more fuel efficient.² The current Australian approach is more likely to result in larger capacity, fuel hungry cars being purchased and then driven further than is needed. If the actual desire is to support the Australian car industry then there are more efficient ways of doing this with direct support.

Some years ago, we aided mode change between public transport and bicycles. In Victoria, we allowed people to take bicycles on all trains and on country buses. Over the years, the state government and its transport operators have bought new models of vehicles that are not designed for

² Reference: <http://www.hmrc.gov.uk/cars/stage-2-evaluation.pdf>

this purpose and now many fewer bicycles are carried. Indeed, there was a proposal in the last year to ban bicycles on peak hour rail services in Melbourne (due to overcrowding).

Cities in other parts of the world carry bicycles on trams and buses (in a separate storage facility or external racks). Australia could do this, too. Perhaps, as part of Vision setting the Commonwealth in conjunction with COAG should work towards reinstating this capability and not allow it to be wound back further, excused by the unexpected growth in patronage.

Technology Opportunities

Electric cars seem to be a very useful technology, given that most vehicles travel less than 100 km a day (the commute to work and some socialising). They tend to remain parked for most of the day and all of the night. An opportunity exists to develop 'green power' dispensers for electric cars around the cities. Recharging batteries with coal-fired power defeats the purpose of changing from petrol fuel.

There is no magic technology just around the corner; all will be incremental improvements on what we have already. If we are look at solutions to be deployed in the next ten years, then they are going to be of things that exist today and are proven to work, but perhaps not cost effective today. Thus carbon capture for electricity generation is not an alternative for green power in reducing greenhouse emissions.

Recommendations

This summarises the specific areas already identified in this document. They are areas where the federal government can act, either on their own, in support of a state programme, or in conjunction with COAG.

1. Ensure that only state programmes that meet specific objectives relating to efficient land use and reductions in greenhouse emissions receive federal funding. The projects must be part of a Strategic Plan with a worthwhile Vision for the future.
2. In conjunction with COAG sponsor a Vision for the future of Australia. Part of this Vision would be to reduce transport greenhouse emissions through the replacement of inefficient car travel with more efficient public transport and to make public transport (green) electric as much as is useful.
3. Sponsor a 'better cities' programme with pilot projects for improved public transport, transport interchanges, and planned suburbs.
4. Question 'growth' as the measure of 'progress' for society and look to a new metric - Gross National Happiness (rather than Gross National Income and Gross National Product)
5. Identify a target or ideal level for Australia's population in keeping with the resources it has available and what can be used sustainably.
6. Assist states with land use planning through clever choice of location of government buildings, decentralised to regional centres and Principal Activities Districts, to places where the new homes are being built, not just the centres of capital cities. This will facilitate implementation of higher capacity public transport hubs.
7. Assist the states with 'catch-up' investment on major, strategic public transport infrastructure spending that is consistent with a well thought out Vision for the future.
8. Through COAG, set some standards for population density in new developments. More dense suburbs might be better able to support dense public transport corridors and resist pressures for three and four car households and freeway building.
9. Eliminate the perverse subsidy of the concessional treatment of FBT on cars. Change this from a system based on distance travelled to one like the UK system – energy efficiency.
10. In conjunction with COAG, work towards reinstating the capability of carrying of bicycles on trains, trams, and buses (inside or in a separate storage facility or external racks).

Appendix 1

Seoul's Public Transport sets a High Target

The huge city of Seoul in Korea (population 10.3 M people in 1997) has faced problems of a scale quite beyond any Australian city. Yet its situation is not so different to our own. Australian cities set their objectives for public transport patronage growth at small increments above the current situation, yet Seoul shows that far more could be done.

Seoul Metropolitan Government has changed its transport policy over the last decades as the traffic environment has changed. " In particular, it is focusing on developing a public mass transit network, consisting of bus and urban railways, as the principal transport system. Integration of public transport modes is a priority in helping to replace private car use. Specifically, the Seoul Metropolitan Government is planning to maintain a market share for public transit of 70% during rush hours and 50% at other times. Therefore, the policy must be coordinated with several strategies such as road tolls, fuel tax, and parking schemes to discourage use of private cars."³

The problems faced by Seoul are not unique to it, with the rise of suburbs and car ownership challenging governments to provide transport and parking infrastructure. The approach taken by Seoul to solve these problems seems to be the same as that pursued by Melbourne, in terms of policy development. However it is quite different in terms of implementation and measures of success.

In Melbourne we seem to be satisfied with an objective of 20% of motorized journeys by public transport by 2020 (part of the Melbourne 2030 Strategy), but we are a long way short of this and likely to miss this target. We look like achieving about 12% by 2011.⁴

One of the approaches of Seoul is to let people have cars, but give them nowhere to park them in densely populated areas. Another is to give high capacity bus transport its own dedicated lane to increase its transit speed.

³ Reference: http://www.jrtr.net/jrtr25/f25_kim.html

⁴ Reference: www.melbourne.org.au/static/files/assets/d5572a32/061105_CFM_Transport_Taskforce_Public_Transport_statement.pdf