

**Submission to the House of Representatives Standing Committee on Economics
Inquiry into raising the level of productivity growth in the Australian Economy**

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This submission has drawn on research conducted at the University of Wollongong. However, it does not necessarily reflect the views of the University. The main term of reference addressed is "the adequacy of the level of investment in public infrastructure" with a particular reference to land transport.

At the outset, it is noted that "The committee should not undertake detailed assessments of individual industry sectors or specific industry assistance measures." However, given the central importance of land transport to a modern society and its economy, it is suggested that the Committee should indeed take a look at the benefits and costs of bringing rail up to speed in Australia, and, removing some of the long standing apparent hidden subsidies to road vehicle use.

From Chapter 21 called 'Transforming transport' of the The Garnaut Climate Change review final report, "*Governments have a major role in lowering the economic costs of adjustment to higher oil prices, an emissions price and population growth, through planning for more compact urban forms and rail and urban public transport. Mode shift may account for a quarter of emissions reductions in urban public transport, lowering the cost of transition and delivering multiple benefits to the community.*"

In regards to bringing rail 'up to speed', the Australasian Railway Association in its 2009 submission to the Henry Review on taxation made the following points. "*Australia is potentially at a watershed ... with a triad of unprecedented and unrelenting pressure that cannot be ignored:*

- * traffic congestion in urban areas;*
- * climate change and the imperative to stop global warming by reducing greenhouse gas emissions; and*
- * reduced liquid fuel availability resulting in fuel prices increasing at an unprecedented rate.*

Any one of these pressures requires substantial changes to occur. All three of them together demand it. These pressures threaten the sustainability of the Australian community, environment and business."

The main thrust of the present submission is that much of Australia's rail infrastructure is not up to standard, and more investment is required along with improved road pricing and road vehicle use demand management. If, as recently suggested by a respected Canadian economist, international oil prices will reach US\$225 per barrel by 2025, accelerated investment in rail will be urgently needed. The preference for using rail for land transport is simply that in moving line haul non-bulk freight, rail is three times more energy efficient than road. Rail is also more energy efficient than road in moving people.

The case of more investment in road and rail is generally accepted by the federal government and all State Governments. This case has also been addressed by numerous agencies, with a 2004 paper¹ giving more details. However, there remains much scope for road pricing reform: here the Auslink 2004 White Paper noted the option of congestion pricing in major cities along with mass-distance pricing for heavy trucks. Five years on, both road pricing options remain just proposals. Notes on road pricing in general and heavy trucks in particular are attached in Appendices A and B respectively.

Looking at Australian roads in the context of a country with a large area and relatively low population, and setting aside some road maintenance deficits (and other deficiencies, plus some overweight and/or oversized trucks on some lightly constructed roads) Australian roads are well funded.

However, with few notable exceptions, Australia's overall rail infrastructure is substandard on three important fronts:

- *urban rail serving major cities with the exception of Perth;
- *the interstate mainline network; and,
- *the rural network serving grain exports.

¹ Australian Transport Infrastructure: Fit For Purpose? Kilsby D, Laird P and Bowers D 27th Australasian Transport Research Forum, Adelaide, 2004

Part Abstract of paper (the full paper is at patrec.org) The paper suggests that there is a large backlog of necessary works to bring Australia's land transport infrastructure up to scratch. These capital works are broadly identified. The problems are very different in metropolitan and regional areas, and these are distinguished. The paper then argues for a better pricing framework than we currently have, and for interim government intervention in the modal choice for port-related freight before an improved pricing framework can be achieved. The paper concludes with a number of policy recommendations, which if implemented together would eventually allow Australia to claim that its land transport infrastructure was truly "fit for purpose" for present and future freight and passenger tasks.

In addition, well over 100 years since Britain, Canada and the United States resolved the question of railway gauges in favour of a uniform and standard gauge (4'8.5" or 1435mm), Australia still has a multiplicity of railway gauges.

On the other hand, there is no doubt about rail's potential to perform well in moving freight in Australia. Examples of world best practice operations include the iron-ore trains in the Pilbara, Central Queensland electric coal trains, and East West rail freight operations west of Adelaide and Parkes. The completion in 2003 of the Alice Springs - Darwin railway at a cost averaging less than \$1m per km was also of world class.

Oil vulnerability

As the world emerges from the current recession, oil prices are expected to trend upwards. There is no shortage of informed commentary on oil pricing, including a book **Why Your World is to get a Whole Lot Smaller**, by Jeff Rubin (2009), Random House, New York. The book was all but unreported in Australia's capital city newspapers (except by the Courier Mail on 27 May *Economist Jeff Rubin says oil shortfall will end globalization*).

The author, a former chief economist at a large Canadian bank (CIBC), has a good track record earlier this decade in predicting oil prices. By way of example in 2000 he suggested that oil prices would hit \$US50 a barrel within five years. In May 2009, the author was predicting in the Canadian media oil prices reaching \$US225 per barrel by 2012.

The book outlines how oil supply is being increasingly constrained (and hence more expensive to produce); also how demand for oil is increasing and particularly in the non-OECD countries. On recent growth rates, oil consumption outside the OECD will exceed the group's consumption by around 2012 (p 62) whilst car sales are booming in Brazil, Russia, India and China (the BRIC countries). Plus oil is sold very cheaply in some OPEC countries.

Along with North America, the book has frequent reference to Australia as a country dependent on cars and high energy inputs into its food production and economy. Hence the central question for such countries (as opposed to Europe whose rail infrastructure is in much better shape): will we decide to invest in "infrastructure that keeps us bound to oil consumption" (p23) so that "peak oil will soon lead to peak GDP". Or could we decouple our economy from oil and learn to live using less energy?

A further question for America, and Australia, is as follows (p 240) "will the billions earmarked for infrastructure be an investment in our past – in more highways and an obsolete auto industry – or in the future, in public transit and electric cars?"

Or (p 248), following comment about stimulus packages “will we spend our last dollars investing in new rail systems or refurbishing (or expanding) crumbling roads and bridges are probably doomed to some form of abandonment anyway?”

Although written from an economic perspective, Rubin's book has some technical details on energy. For more on technical details, see *Transport Revolutions: Moving People and Freight without Oil* by Canadian authors Gilbert R and Perl A (2008, Earthscan - see Rail Express November 2008 p12 for a review) along with *Resilient Cities: Responding to peak oil and climate change* by Newman, Beatley and Boyer (2009, Island Press).

To complement these three books are sections of the February 2007 Report of the Senate Rural and Regional Affairs and Transport References Committee following its inquiry into Australia's future oil supply and alternative transport. The 2007 report report notes, inter alia, *that if there is a long term rise in the price of fuel, this will favour rail because fuel is a greater proportion of costs for road transport. This may suggest a need to increase the pace of catchup investment in rail infrastructure.*"

Pending a positive government response to this report and its recommendations, the Prime Minister Rudd's comment on 5 June 2008 we have now reached the point in the world where “*more and more people are chasing less and less oil*” remains true.

In addition, the International Energy Agency (IEA) who in their 2004 World Energy Outlook concluded that *‘prices reached in mid-2004 are unsustainable and market fundamentals will drive them down the next two years* (to \$22 by 2006 - thus lulling nations like Australia into complacency). In early 2009 the IEA warned that there will be *"no spare oil capacity at the end of 2013."* (<http://uk.reuters.com/article/idUKLR48018520090227>)

Government responses to oil vulnerability

At present, these appear to be hesitant in Australia. Many other OECD countries, including New Zealand, appear to be taking the issue more seriously.

In the same month (December 2007) that Australia finally ratified the Kyoto Protocol, an "International Symposium-Climate Change and Transport Strategy" was held at Nagoya with a total of approximately 350 experts in attendance from Japan and around the world, who specialize in climate change, transportation and the economy. The Symposium's Keynote Speaker was Lord Nicholas Stern, Professor at the London School of Economics who spoke on "Climate Change, Economics of a Global Deal and the Role of Transport". The website <http://ecotransport.jp/en/eventreport.html> has more details. In brief summary,

"delaying climate change mitigation is dangerous and costly and when we consider passenger transportation from the perspective of the global environment, it is necessary to increase the traffic share allocated to railways."

The potential need to reduce dependence on imported oil goes hand in hand with reducing greenhouse gas emissions from transport. Yet, Australia's response continues to appear restrained. By way of example, when it comes to addressing transport generated greenhouse gas emissions, Australia needs to be doing something much more positive than that of the limited in scope presentation *"Providing Information Tools for Consumers: The Australian Green Vehicle Guide"* made 17-18 June 2009 at Hakodate Japan to the Ministerial Conference on Global Environment and Energy in Transport (MEET).

Further information is available at http://www.mlit.go.jp/kokusai/MEET/index_en.html on the discussions of senior transport officials from major countries, with experts from international organizations, to combat climate change and air pollution in the transport sector.

By way of contrast to Australian oil policy today, Australia's response to high oil prices 30 years ago was quite decisive. The actions included an Energy Statement by the Prime Minister with excerpts as follows.

Excerpts from an Energy Statement by the Prime Minister, 27 June 1979

The present turmoil in the world oil market has forced on the world an accelerated recognition of the need to adjust energy use patterns away from oil and towards alternative energy sources.

International Energy Agency (IEA) Ministers – representing most western oil consuming nations – stressed at their meeting in Paris in May 1979 that strong action is urgently required to curb the demand for oil: *..Ministers therefore confirmed the decision by IEA countries to reduce their demand for oil on the world market in the order of two million barrels per day which would correspond to about five per cent of IEA consumption...*

These conclusions were endorsed two weeks ago by the Ministerial Council of the OECD, which concluded that: *There is now a real danger that, without responsible policies by oil consumers and producers alike, the energy situation will seriously damage the world economy.*

Most countries are acting to reduce their demand for oil and to augment supplies... The oil situation has major implications for the world economy. Disturbances to oil

supplies and increases in oil prices depress economic activity, add to inflationary pressures and produce instability in exchange rates.

Australia cannot ignore the world-wide consequences of what is happening.

Australia is relatively well placed as regards indigenous energy resources [with coal and natural gas]. ... We depend on imports of heavier imported crude oil to meet our fuel oil requirements, and we are reliant on imported aviation gasoline.

Although the OPEC countries had quadrupled the world price of crude oil in 1973-1974, Australian prices for petroleum products remained artificially low, due to the availability of domestic crude oil at less than half the world price.

Recognising this the Government began in the 1977 Budget the move towards import parity pricing for Australian produced crude oil.

Notwithstanding import parity pricing, Australians still pay much less for petroleum products than consumers in most other Western countries. Most Australians pay about half the price of motor spirit prevailing in European countries and Japan. The price in Australian cents per litre in Japan is 48.9, United Kingdom 46.5, West Germany 41.7, France 49.8 and Italy 51.6. About the only countries with motor spirit prices below Australia's are the United States of America and Canada.

Our energy decisions must be based on realistic prices for petroleum products. Countries which have been slow to face up to reality of higher prices for oil have experienced shortages as a result of the world oil situation. The most notable example is the U.S. which consumes more than its fair share of the world's finite resources.

The choice is between paying realistic prices for petroleum products or not having access to adequate supplies.

There are no other options. Australia, like all industrial nations, is heavily dependent upon oil as an energy source.

The highest priority is to conserve liquid fuels used in motor transport.

The Government will proceed immediately with a voluntary program of national fuel economy goals for passenger vehicles. The fuel economy targets require the weighted average fuel consumption of new passenger cars to be reduced from the present 11 litres/100 km to 9 litres/100 km by 1983 and 3 litres/100 km by 1987. This should result in saving of motor spirit of approximately 5 per cent in 1987.

The views given in the late seventies by the Australian Transport Advisory Council (1979) in a book *Transport and Energy Overview*, Canberra: AGPS are still relevant (and although the data has changed, the approach adopted in the book is worth revisiting): "... rail is relatively energy efficient compared to road for long distance freight ... (and) ... does have fuel substitute options, such as coal-oil slurries or electrification As far as possible pricing and cost recovery policies should be consistent across the modes so as to encourage use of modes appropriate to particular tasks. Appropriateness may be defined broadly as minimising the total social cost of transport services, including externalities.

The actions of the Federal Government after the Prime Minister's statement of 1979 along with import parity pricing for oil included a conditional offer in 1980 to electrify the Sydney Melbourne railway. However, the effects of the recession in the early 1980s and the subsequent return of world oil prices to low levels saw a relaxation of drive on the part of the government to conserve the use of liquid fuel in transport.

However, in 2009, as outlined above, the global oil supply and demand situation is quite different from 1979. If Australia is to maintain its competitiveness on world markets and its current standard of living, and has to adjust to higher international oil prices, then the energy efficiency of transport in Australia has to improve. This, in part, could be assisted by more use of coastal shipping. However, the remainder of the submission looks at ways the rail system could be improved to move more people, and more freight.

It is also submitted that more attention should be given to road pricing. This view was shared by a NSW Inquiry² - "*The thinking underlying the support for road use pricing is that road access is currently 'too cheap' (as distinct from the general cost of motor vehicle use), as motorists are not directly bearing all of the costs associated with their decision to make a journey. For example, driving a vehicle is associated with costs such as congestion, road wear and tear, pollution and accidents.*"

Urban Rail

Most people rely on cars for getting around major cities such as Sydney and Australia's other capital cities. This is partly due to the growth since World War II of low density suburbs that are not always well served by public transport.

From the mid 19th Century, after six decades of building Australian cities "around the

² (NSW Ministry for Transport (2003) Ministerial Inquiry into Sustainable Transport (Parry Inquiry via www.transport.nsw.gov.au)

car”, there had been an increase in total travel in urban areas, with almost all of that growth coming from cars and ‘other’ road vehicles. To quote from the Bureau of Infrastructure, Transport and Regional Economics (BITRE)³

"In the sixty years since the end of the Second World War, Australian cities have been transformed from fairly tightly knit core-and-spoke configurations, to sprawling suburban low-density configurations.

"This transformation of urban land use has been accompanied and made possible by a rapid improvement and spread of the road system, and an even more rapid expansion in per person car ownership. ... total motorised travel in the urban areas of Australia has grown remarkably—almost tenfold over 60 years. Most of that growth came from cars and other road vehicles ..."

For much of this time, urban public transport was either static or declining. Rail moves urban passengers in Australia’s major cities, by either conventional 'heavy rail' systems (now mostly electrified) or by light rail (including trams). In Australia, urban heavy rail passenger numbers have risen from a low point of about 310 million passengers in the late 1970s to about 610 million in 2007-08⁴. In terms of passenger kilometers (number of passengers times a 2006-07 average length of journey of 18.62 km⁵), this was a modest 11.4 billion pass. km compared with the total metropolitan movement by cars in 2007-08 of 147.3 billion pass. km. (see BITRE, 2009).

Urban rail patronage in Australia has seen appreciable growth in the five years to 2007-08 by some 22 per cent (from about 494 million passengers in 2002-03). The largest growth was recorded in Melbourne (some 30 per cent from 134m to over 200m in five years with more expected in 2008-09) and Perth (31 to 42 m over five years). Over these five years, CityRail has shown a modest increase of some 8 per cent.

It is pleasing to see the present Federal government investing in urban rail, allowing federal funds for urban public transport (that were provided from from 1974 to 1996).

However, it is of concern that Sydney, where the need is the greatest, will only receive minimal federal funding in 2008-09; also that the NSW government was unable to put forward more realistic projects such as an Epping to Castle Hill railway, extension of a light rail using former goods lines in the Inner West and completion of the 35 km Maldon-

³ BITRE (2009), *Urban Passenger Transport: How People Move About In Australian Cities* at www.bitre.gov.au/publications/05/Files/IS31.pdf.

⁴ Various Annual reports for 2007-08 data.

⁵ Australasian Railway Association (2008) *Australian Rail Transport Facts 2007*

Dombarton line (to improve rail freight access to Port Kembla and to give more passenger capacity on the existing South Coast line). Delays on the NSW Government's port in completing the Epping-Chatswood line (with a massive cost blow out) and advanced planning of the necessary upgrades for its North Strathfield-Hornsby-Gosford track are also of concern.

Non urban passenger rail

The growth in urban rail patronage contrasts with intercity trains in Australia that have shown some decline although there are some notable exceptions (including *The Ghan* (Adelaide - Alice Springs and since 2004 to Darwin).

In 1998, a new 160 km/h electric tilt train service linked Brisbane and Rockhampton and was the first regular tilt train service in the Southern Hemisphere. The success of this service, which gave competition to regional aviation for the first time in decades, was followed in 2003 by the introduction of a Brisbane - Cairns diesel tilt train.

Victoria's regional rail gained a big boost on completion of its Regional Fast Rail project in 2006 (trains on four lines with speeds up to 160 km/h) with a 30 per cent increase in travelers to 2006-07. This was followed by further growth of 30 per cent in 2007-08. WA also has some regional trains moving up to 160 km/h. Currently NSW XPT service speeds are capped at 120 km/h, for a small part of the NSW network.

Clearly there is scope for further improvement in regional passenger services, and possibly the development of High Speed Rail. In this regard, the 2008 final Garnaut report (pages 523,524) Section 21.4.3 Inter-regional passenger transport includes

"High-speed rail is a major component of long-distance travel in Europe, Japan, Korea and China, linking cities that are several hundred to a thousand kilometres apart. While the prospects for competitive high-speed rail for intercity journeys in Australia have seemed limited in the past, high oil prices, an emissions price, rising incomes and a growing population on the east coast improve the prospects of cost-competitive high-speed rail links between major cities.

Now is a good time for the Commonwealth Government and the governments of New South Wales, Victoria, Queensland, South Australia and the Australian Capital Territory to examine why intercity passenger train services in Australia are inferior to those in European and high-income Asian countries, with a view to removing barriers to the emergence of high-quality inter-regional rail services in Australia."

Interstate rail track

In the area of interstate rail freight track, whilst recognising the good work done by the Australian Rail Track Corporation (ARTC) on the East-West corridor (linking Melbourne to Perth) and more recently the North-South corridor (Melbourne-Brisbane), much more work is needed on both corridors. In short, much of the North-South track linking Australia's three largest cities has substandard alignment and it needs straightening. The present track linking Australia's three largest cities is at least 150 km longer than it needs to be and has excessive curvature limiting speed weight performance.

Indeed, as noted in a 2008 submission by the ARTC to Infrastructure Australia (p20) *“ For rail to move to the next step in competitiveness, or even in fact to maintain competitiveness against a constantly improving road network, there is no alternative but to start to consider deviations of the current poorly aligned sections of the network.”*

Both the East-West and North-South corridors have long standing restrictions on axle weights. The current standard in Class I railways in Canada and the United States is for wagons with 285 000 lb (gross weight) which corresponds to axle loads of 31.8 tonnes. This requires track with good formation and heavy rails etc. In short, the mainline track of Canadian and US Class I Railroads allows for “FAST AND HEAVY” freight trains moving at 100 km/h with 25 tonne or more axle loads. However, the Australian standard over much of the ARTC network (excluding the Hunter Valley coal lines in NSW) is restricted to 23 tonne axle load (TAL) limit for wagons moving no faster than 80 km per hour, or a 21 TAL limit for wagons moving no faster than 115 km per hour.

In addition to overhead clearances being unduly restrictive east of Adelaide and Parkes, crossing loop lengths are at best is mostly limited to 1800 metres (except for Sydney-Brisbane where it will be 1500 metres). Canadian National is now extending its loops to 10 000 feet or about 3000 metres. Queensland's north coast line has benefited over the last 24 years from about 200 km of track straightening, plus strengthening. However, more such work is needed.

In addition, work on an Inland Railway railway linking Melbourne to Brisbane via Parkes has been painfully slow whilst subject to numerous studies. It makes one wonder how if Western Canada can have two viable long distance rail routes from Winnipeg to Vancouver (CP via Calgary and CN via Edmonton) why South East Australia can have only one major rail track. This is despite Australia's Melbourne-Brisbane route serving a larger population

over a shorter distance.⁶ In short, Western Canada has two major interprovincial lines of good quality, whilst Eastern Australia (with its larger population) has just one interstate mainline of poor quality.

Rail freight issues (including a need for "... *the reconstruction and realignment of the main freight networks*") were well covered in the Parliamentary (Neville Committee) report "*The Great Freight Task: Is Australia's transport network up to the challenge?*"

This report was released in September 2007. The slowness by government in providing a response to this report (coupled with the delay in responding to the February 2007 Senate Committee report and also the House of Representatives Standing Committee on Environment and Heritage September 2005 report 'Sustainable Cities') is also of concern.

Potential oil savings of 185 million litres of diesel use a year in moving line haul freight in Eastern Australia were identified in a 2008 paper⁷ of this writer. This however would require track straightening and other upgrading options for the existing North South corridor and the Queensland North Coast line (along with improved road pricing for the competing mode of trucks using the National Highway System). Such upgrades during 2009 - 2014 would lower transport costs and assist rail to reach a target of 50 per cent mode share on the East Coast (as opposed to less than 12 per cent on the North - South corridor and 25 per cent on the Queensland North Coast line). In turn, this would deliver by 2014, estimated savings in diesel use of 185 million litres per annum along with reductions of greenhouse gas emissions of nearly 500,000 tonnes CO₂e per annum. There would also be reductions in external costs, estimated at \$325m pa. If oil prices were to continue to trend up to the point that rail electrification was used from Melbourne to Sydney and onto Brisbane (on reconstructed track and not the existing substandard alignment) the reduction by 2014 in fuel use would be about 111 million litres per annum on in addition to the above cited savings.

Track straightening on the North Coast line of NSW was raised in both the May 2004 Budget Speech and the June 2005 AusLink White Paper. Some five years later, it appears that the ARTC is yet to move to advanced planning in the manner done by the NSW Roads and

⁶ In regards to population, at the end of 2008, the four Provinces of Western Canada (British Columbia, Alberta, Saskatchewan and Manitoba) had some 10.28 million people (<http://www.statcan.gc.ca/pub/91-002-x/91-002-x2008004-eng.htm>) whilst Eastern Australia (Victoria, NSW and Queensland) had a population of 16.75 million people. (<http://www.abs.gov.au...>) The Vancouver - Winnipeg rail distances are approximately 2420 km via Calgary and 2600 km via Edmonton (based on road distances from http://www.trailcanada.com/travel/in_canada/travel_distances).

⁷ *East coast mainline rail track: options for 2014* Conference on Railway Engineering Perth Proceedings pp 357-368

Traffic Authority for Pacific Highway Upgrades, or, the Queensland Government for duplication of the Landsborough to Nambour section of the Queensland North Coast line on improved alignment (on public exhibition to 24 August 2009, see http://www.transport.qld.gov.au/Home/Projects_and_initiatives/Projects/Landsborough_to_nambour_rail_corridor_study)

The Australian Government makes funds available for the advanced planning of the Pacific and other major interstate highways. It is submitted that funding provision should be made for expediting advanced planning for major rail track upgrades. The case for special funding to allow the ARTC to expedite such forward planning is strengthened by the fact that the ARTC is a Corporation as opposed to a public authority.

Rail in regional Australia

Grain line condition in many states has deteriorated, and this in part is a consequence of privatisation of certain rail assets. Many such lines now need rehabilitation. Again, the issues were well covered (including the option used in Canada where governments move to support rather than overregulate short line operations) in the above cited 2007 report "*The Great Freight Task: Is Australia's transport network up to the challenge?*"

In regards to rail regulation, it is of note that the July 2002 Review of the NRTC Act 1991 recommended (#18), inter alia, that “ *Work programs and strategic plans for regulatory reform of rail and intermodal freight operations and for strategic analysis and advice should be prepared for the Australian Transport Council as a matter of urgency.*”

Seven years later, the issue is still of concern.

Concluding remarks

In the 25 years from 1974 to 1999, in 1999 values, the Federal Government allocated \$17.9 billion (bn) to the National Highway System with \$42.8 bn on all roads. A net allocation of some \$1.2 bn was made to rail capital works, and about \$1.5 bn to urban public transport. ⁸As noted⁹ Federal allocations in the five years to 2004, in 2004 values (being 1.1526 times 1999 values), were about \$4.0 bn to the National Highway System, \$8.8 bn to

⁸ *Back on Track: Rethinking Transport Policy in Australia and New Zealand* P Laird, P Newman, M Bachelors and J Kenworthy UNSW Press, 240 pp ISBN 086840411X

⁹ *Australian land transport - is it sustainable ?* P Laird, G Adorni-Braccesi and M Collett Towards Sustainable Land Transport” Conference November 2004 in Wellington New Zealand

all roads, \$0.9 to rail capital works, and virtually nothing to urban public transport. Past federal investment in land transport has favoured roads and the expense of rail and urban public transport. Accordingly, in the 30 years to 2004, in 2004 values the Federal Government allocated \$24.6 bn to the National Highway System with \$58.0 bn on all roads, \$2.2 bn to rail capital works, and about \$1.8 bn to urban public transport.

It would be good to see the corresponding figures for the five year period from 2004 to 2009. The indications that during this period, that despite AusLink and funding the ARTC, the Federal government continued a bias toward roads at the expense of rail and urban public transport. Even now, with the introduction of Infrastructure Australia, the welcome reintroduction of Federal funds for urban public transport, and claims of record federal funding of rail, road funding has moved to record levels and even more generous arrangements have been made to support a car industry in Australia.

In short, and despite the recognised need to reduce Carbon Pollution in transport and the likely escalation of world oil prices in the next decade, transport policy in Australia continues to demonstrate much of a "business as usual" approach. A more balanced approach is now required.

In 1990, Professor Peter Newman et al¹⁰ suggested that "*A decade of emphasis on rail funding is required after a decade of emphasis on road funding which has shifted out cities towards an excessive dependence on the automobile . . .*"

Both Prof Newman, this writer and others in a 2001 joint authored book (footnote 8, Chapter 4, page 89) found: "*It needs a new approach to address the heavy bias to oil-based road transport in Australia. A whole new program is also required to shift passengers from road to rail in our cities and regions, and, to shift freight from road to rail.*"

As noted in 2006 by the Australian Logistics Council¹¹ rail is a key action area and **preparing the rail system for future challenges is the first of four top action priorities** (emphasis added). To quote from page three "*current rail infrastructure is not capable of providing an adequate level of service even for the existing task. This is a reflection on past under-investment...*"

It is trusted that in view of the importance of land transport to the national economy, the Committee can give attention to the relevant issues.

¹⁰ Newman, P., Kenworthy, J., Lyons, T., Transport Energy Conservation Policies for Australian Cities, Murdoch University, 1990 (p. xi)

¹¹ Australian Logistics Council (2006) Infrastructure Action Agenda

APPENDIX A Should road pricing in Australia be increased ?

During the 1990s, it was common for motoring organisations and road transport interest groups to claim that aggregate vehicle related payments to Government exceeded road outlays by Government. Often, in their more extreme forms, propositions were advanced along the lines that motorists are ripped off and trucks more than pay their way.

A good account of the question as to whether motorists pay too much was given in a 1999 booklet by Howard Pender¹². This study was sponsored by the Australian Automobile Association and addressed three questions.

First, are motorists lightly or heavily taxed?

Secondly, should they be heavily taxed?

Thirdly, what is the appropriate balance between taxes on vehicle ownership and use?

In 2001, Prof Peter Newman and myself argued (see footnote 7) that hidden subsidies to road vehicle use, even when excluding congestion costs and not making any allowance for greenhouse gas emissions, resulted in the late 1990s of a 'road deficit' of \$8 billion per annum. This estimate has since been updated¹³ and including an annual \$0.8 bn non-tariff automobile industry assistance programme; an estimated increased health cost of lack of physical activity due to excessive car use of about \$0.8 bn per annum in Australia¹⁴ and greenhouse gas emissions at \$25 per tonne, a case can now be made that there is a 'road deficit' of around \$13 billion per annum.

The two largest items were road crash costs not met by insurance of some \$5.5 billion as a cost to the wider community plus an estimate of net taxation refunds for motor vehicle use of \$4.8 billion in 2003-04. The removal of indexation in 2001 of fuel excise has resulted in a higher 'road deficit'.

In regards to estimates for the costs of greenhouse gas emissions, a value of \$25 per tonne of carbon dioxide equivalent (CO₂e) may be regarded as either too low, or too high. There is a case for imposing modest carbon tax in Australia on transport activity and applying the proceeds to improved transport infrastructure.

Of this \$13 billion per annum, approximately \$3 billion can be attributed under one set of assumptions to articulated trucks being under-recovered road system costs (about \$1.5 billion) plus external costs (a further \$1.5 billion) - see Appendix B. It is appreciated that there are also appreciable subsidies to rail passengers that have increased in recent years, plus subsidies to rail freight that have decreased in recent years. Rail freight external costs (excluding the iron ore railways) were estimated at \$215 million.

¹² *Taxing cars -fleecing the fleet or subsidising smog ?* Australian Tax Research Foundation, Research Study No 33

¹³ *Road pricing in Australia – too much or too little*, P Laird, Australian Road Summit, February 2007

¹⁴ Mason, C (2003) Personal communication, also *Transport and health: en route to a healthier Australia?* Medical Journal of Australia Vol 172, 6 March 2000 pp 230-232

APPENDIX B Re road pricing for heavy trucks

i. From the website of the National Transport Commission (NTC) accessed 13 October 2008.

The NTC was directed by the Australian Transport Council (ATC) to update heavy vehicle charges after the Productivity Commission's *Road & Rail Freight Infrastructure Pricing Inquiry* (2007) concluded: "*Substantial increases in road investment in the past couple of years make it likely that heavy vehicle charges would have to rise to maintain cost recovery.*"

In April 2007, the Council of Australia Governments' (COAG) endorsed the charges review as the first 'building block' of broader road pricing reform.

Why are large increases proposed for B-doubles? Bigger trucks are currently cross-subsidised by smaller trucks. COAG's pricing principles require those cross-subsidies to be removed.

B-doubles have benefited significantly from higher road spending; particularly improved access around ports, urban arterials, grain silos, sale yards etc. The number of B-doubles has increased by 267% to 9,564 vehicles since 2000.

Governments have little incentive to further extend the B-double (and other high productivity vehicles) network if they don't pay their way. The Business Council of Australia's Infrastructure Roadmap for Reform (September 2007) recently concluded: "We need to ensure that high productivity (that is, larger and longer travelling) trucks are charged appropriately. Not only will this help road/rail neutrality, it will facilitate having B Doubles and B Triples on our roads." - (BCA 2007)

Is the NTC calculation accurate? "The Productivity Commission independently audited and endorsed NTC's charges methodology noting that it is "conservative" by international standards (i.e. resulting in lower charges)."

ii. As noted by the 2006 Productivity Commission Road/rail freight infrastructure pricing report (on page 125), the recent annual subsidy paid for the operation of a 9 axle B - Doubles hauling the 75 th Percentile distance (227 500 km) is \$23,000. This was under National Transport Commission (NTC) charges and methodology, based on revenue of \$34,200 and an allocated cost of \$57,200.

iii. There appears to be three notable broad groups of estimates for road system costs attributable to heavy trucks¹⁵:

- **Conservative or NTC** - as per the National Road Transport Commission (NRTC) first and second determinations and the NTC third determination.
- **Intermediate** - including the former Inter-State Commission findings¹⁶ during the 1980s, the 1990-91 Over-Arching Group (OAG) recommendations and NSW permit fees for heavier semitrailers and all B Doubles in use to 30 June 1996.

¹⁵ *Road pricing in Australia – too much or too little*, P Laird, Australian Road Summit, February 2007

- *High, or "user pays"* - including the Bureau of Transport and Communications Economics (BTCE) 1988 report¹⁷ noted in the draft report of the Productivity Commission, McDonnell's methodology (NSW) (see for example¹⁸), and ongoing New Zealand Road User Charges.

When announcing the NRTC first generation charges in 1992, the chairman, the late Gordon Amadee, conceded they would not be "user pays" as this would not be tenable¹⁹. The costs to the NSW Government of implementing the then new NRTC charges (as of 1 July 1996) was over \$60 million per year and NSW annual permit and registration fees of \$12,650 a year in 1989 for an 8 axle B-Double were slashed to \$5500. With Consumer Price Indexation, the 1989 NSW B-Double fee would in 2007 be about \$20,775. This is more than two and a half times more than July 2008 NTC charge for an 8 axle B Double of \$8041.

Subsidies are one reason why the number of large B-Doubles has grown so rapidly in recent years, as noted in the draft report of the Productivity Commission - up from about 700 in 1997 to more than 6000 now. The difference between road system costs attributable to articulated trucks under the 2005 NTC model and using Macdonell's Methodology is approximately \$1.5 billion per year.

iv. New Zealand has had in successful use, since 1978, a system of mass-distance pricing for heavy trucks. These charges for the heavier articulated trucks hauling long distances are appreciably higher levels than the combined annual registration charges and fuel road user charges that apply in Australia. These were recently increased in July 2008, and for a 9 axle B-Double operating at 62.5 tonnes Gross Vehicle Mass with 22.5 tonnes on the prime mover and 20 tonnes on each of triaxle trailers would amount to \$NZ942 per 1000 km (taking the prime mover at the average of charges of \$452.03 for 22 tonnes and 523.33 for 23 tonnes plus \$227.19 for each trailer to 20 tonnes).

From the above 2006 Productivity Commission report, a 9 axle B - Double hauling the 75 th Percentile distance of 227 500 km) in a year would pay \$34,200 and have, under the NTC's 'conservative' methodology, an allocated cost of \$57,200. Yet, the same B-Double in New Zealand would pay \$NZ214,305 in road user charges. Even allowing for currency conversion, GST, the New Zealand charges being current, and the NTC ones being c2005, there is a large difference. The ratio between New Zealand and Australian road user charges for a heavy 9 axle B-Double hauling long annual distances is at least four to one.

For heavily laden semitrailers hauling long annual distances, the ratio between the New Zealand user pays charges and the recent NTC charges are about three to one. The above cited 2006 Productivity Commission also gives figures showing that payments made by certain six axle articulated trucks do not meet NTC allocated costs.

¹⁶ Inter-State Commission (1986) Cost recovery arrangements for interstate transport, to (1990) Road use charges and vehicle registration: a national scheme Canberra

¹⁷ BTCE (1988) *Review of road cost recovery*, Canberra

¹⁸ Laird PG (2006) *Freight transport cost recovery in Australia*, Australasian Transport Research Forum, Gold Coast

¹⁹ Sydney Morning Herald April 13, 1992 "Recession puts truck plan off road."