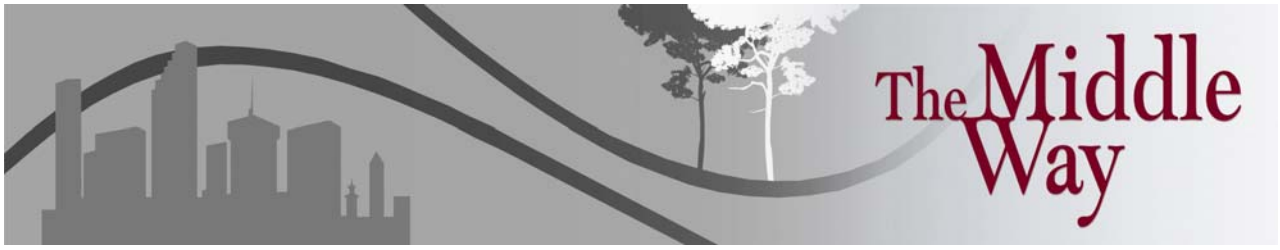

The Middle Way Pty Ltd
PO Box 26
Beecroft NSW 2119

ABN 95 100 151 399

The Secretary
Freight Inquiry
Productivity Commission
LB2 Collins St East
Melbourne Vic 8003

Dear Sir/ Madam,

Please find attached a submission from our firm to your Inquiry.

We are a policy research consultancy that focuses on long-term sustainability issues, and have a particular interest in infrastructure sustainability.

The comments we offer are derived from our observations whilst dealing with a range of clients over the past four years, and also reflect some of the concerns they have voiced themselves.

My contact details are on the first page of the document, and I believe these cover all of the points in your cover sheet on page 5 of the Discussion Paper. We do not wish to have any of our comments regarded as confidential.

I would of course be pleased to discuss or clarify any of the points raised in the submission

Yours faithfully

Geoff Noonan
Principal
12 May 2006

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1. INTRODUCTION

The Productivity Commission's Discussion Paper reflects the very wide acceptance that the demand for freight transport across Australia will increase substantially over the next decade, and particularly so if the current level of economic activity persists.

Exactly how the capacity of the infrastructure that is in place, together with that which has been announced will cope with the increased demand is less clear. Many urban and rural communities will experience social impacts from the pressures that will be generated, and additional costs imposed on both the freight carrier and their customers.

In reviewing the policy issues involved, the Productivity Commission needs to separate calls for infrastructure funding to underpin the generic movement of goods between any two places, from pressure to stimulate the level of transport activity in the economy and by derivation, the viability of the freight carriers. Freight transport may constitute a major stand-alone service industry that is also a significant employer, but it is difficult to reconcile calls for public funding to underpin its viability in times of lower demand for its services, as are frequently heard in times of slower economic activity.

This type of distinction is rarely drawn in economic analyses, but the reality is that the transport function is an avoidable transaction cost of doing business for all other sectors of the economy. Ultimate efficiency in transport logistics occurs when the need to move an item between any two places is more than a bare minimum. A further distance than this is undesirable from both the supplier's and the consumers' perspective, so efficiency improvements should be directed to reducing the number of tonnes moved, the number of kilometres they travel, or preferably both. The economic gains offered by achieving this objective are substantiated by the overwhelming drive towards just-in-time delivery transactions in many industry sectors.

Under this concept, the transport function can be perceived as an impost on the economy that is ripe for microeconomic reform. Australia profited greatly from the reforms over the past 15 years of various utilities and infrastructure management arrangements, albeit largely from competition policy reforms of monopolistic Government enterprises. But the transport industry escaped a structural and strategic overall reform of a similar depth and magnitude. We therefore support the statement in the Commission's Discussion Paper (p.21) that the concept of competitive neutrality pricing should be extended, and that subsidies for the sector should be eliminated.

True, a host of recent initiatives have set the scene for mode-specific efficiencies to be introduced progressively that will reduce the tonne-kilometre cost of goods carriage, as well as their transit time. But there is still no national strategic framework that focuses on reducing the *total* kilometres covered by the transport industry, or on optimising the overall efficiency of the total goods handling from source to destination. This is left to market mechanisms to achieve, but as we will see there are market failures inherent in the process that argue the case for a more creative and comprehensive structural reform.

This submission identifies seven policy issues that we consider are relevant to the Terms of Reference of the Inquiry. These are discussed below, but in essence, our submission seeks to highlight the types of policy inadequacies of the current arrangements that we feel could progressively threaten the long-term sustainability of the national freight transport service.

2. PRICING OF EXTERNALITIES

The current COAG policy governing the setting of fees and charges for road freight has one limitation in that it fails to address the full cost of the use of the road system by excluding externalities (*Port Jackson Partners, 2005*). This is in part because there is still no agreed basis for apportioning the broader and indirect costs of truck movements to a specific vehicle or freight consignment.

This is not surprising, because there has been a relatively limited uptake of externalities pricing in other commercial, agricultural or industrial activities that also have social or environmental impacts.

The most obvious impacts of trucks relate to their noise and tail-pipe emissions profiles - especially when engines are ill-tuned, or other on-board equipment is poorly managed. Recent measures such as the introduction of the low sulphur diesel from 1 January 2006 and the emerging noise controls for new vehicles, should eventually contribute to an improvement of this picture, but they will not eliminate the adverse effects of the residual emissions in congested urban traffic.

The operators of those vehicles that perform poorly create real health and environment problems in urban areas. They also enjoy an unfair advantage in the market by avoiding either the capital investment in vehicle replacement or the ongoing costs of engine maintenance programs, both of which are costed into the budgets of the better performers. Progress at the national level will be strongly influenced by the rate of modernisation of the truck fleet, but because there is no incentive in the road user pricing system to remove the worst performers from the road, its turnover is not particularly rapid.

We agree with the focus on the Discussion Paper on this issue. The Commission may also care to examine if it considers that the progressive introduction of tougher environmental performance standards for *new* vehicles represents a surrogate for externalities pricing for the whole industry, as is argued by some commentators. We are slow to support this contention. The slow fleet turnover means that models with the latest environment protection technology always comprise a minor part of the fleet, so again, the most successful or conscientious participants pay the charges and not to the poorer performers.

3. REGIONAL ECONOMIC IMPLICATIONS

COAG established the policy of requiring trucks to pay their share of the operational and maintenance costs of the road network. The need for the States to recover at least these elements is understandable, but perhaps the policy is too limited to properly meet the obligations acknowledged as belonging to the public purse.

Previous competition policy pricing models for water and energy utilities not only recognised the need to provide for the replacement of depreciating assets at the end of their useful life, but also facilitated their replacement with assets that were optimised to meet the demands on them at the time of replacement (ie the Depreciated Optimised Replacement Cost approach at p.17 of the Commissions Discussion Paper). This ensures that higher community expectations and increasing technological complexity can be taken into account when user prices are set. It seems logical that a similar approach should apply to the road freight industry, and especially if the DORC approach currently applies to the rail system as stated in the Discussion Paper.

In practice however, reproducing this regime for heavy vehicles will encounter difficulties because of a second issue, namely, the lack of hypothecation of the revenue obtained from the road-user to the point at which the road-related asset is to be upgraded or augmented. It is relatively easy to determine a price for the transfer of water from a dam to a consumer when it travels along a discrete length of pipe, and to do so such that the pipe and pump will continue to function properly and can be replaced when their useful life has ended. But the nexus between a freight consignment on a given truck and a specific segment of a high capacity road network is a little less robust.

The policy failing is accentuated when the aim is to fund a vulnerable asset like a bridge that is managed by a Local Council. The freight movement may be through an LGA which is merely a blip on its long-distance corridor, so the local community enjoys none of the economic benefits of the commercial transactions involved. But the Council has to argue for funding for the bridge upgrade as part of its applications for road grants to either the State or

Commonwealth Governments, or in the worse case, fund the improvement from its local rating capacity.

Only a small percentage of road fatalities are believed to be caused directly by heavy freight vehicles, and even fewer through the collapse of key infrastructure, so it can be argued that the national system of road maintenance works well. We consider however, that it provides a poor basis for going forward to a time when the demands on the road system will be severe, and the costs of supporting it to a reasonable level will escalate. Further, there is evidence that the PAYGO system is failing badly to serve remote communities, so a different funding model may be required if their needs are to be met adequately. (*NTC RIS – submission from the NT Government*).

The existing pricing regime is further limited by the fact that the charges on the truck industry contribute little to the identification and development of alternative and more effective transport arrangements, but merely supports the continuation of the status quo.

For example, a large number of truck movements may be required to serve a mine or agricultural region, and they may need to cope with a poor regional road network to do so. It may be possible however, that a new rail line could be laid to serve the region far more effectively, and which could be NPV positive within an acceptable time horizon. Nevertheless, there is no mechanism for using the road-use revenue collected from the region to invest in the preferred alternative. The revenue goes to Consolidated Funds and is duly allocated either to maintaining the minimum quality standards for the roads in the region, or for application to more pressing problems elsewhere in the State.

Over time, the road-user demand pressure that builds usually leads the construction of a new higher capacity road in the region in question, since this offers the path of least resistance. The new road can follow the existing bitumen and hence avoid the difficult process of selecting and isolating a new corridor for a future rail line, and perhaps even the considerable expense involved in compensating existing land-owners on its path.

In effect therefore, the current pricing regime does little to facilitate the adoption of the most cost-effective freight transport option for a region. In turn, this may serve to restrict the economic benefits that could flow to it, or at least to the consignors who operate there and their customers.

4. UNDER-UTILISATION OF THE NATIONAL TRUCK FLEET

One of the anomalies associated with the road freight industry that seems to receive very little public attention is the cost to the economy of providing a road infrastructure to underpin a heavy vehicle fleet that has a notable proportion of its vehicles traveling empty at any point in time.

Estimates of the under-utilization of the fleet vary, but it seems that this can be as high as 30% in some areas. If so, there could be implications for the willingness by the industry to pay even reasonable prices, because their average financial return per kilometer is halved if they return home from a delivery empty. This also implies that the service-demand signals sent by the industry to road construction authorities about the need for future network enhancements are substantially inflated.

Most infrastructure systems experience capacity under-utilization at some point in their operational cycles. Some, such as passenger transport entities, use the pricing mechanism to encourage increased off-peak usage, while a stressed hospital outpatient department may capitalize on the opportunity to enjoy a patient load downtime. But for most, the under-utilisation is transparent and is factored into the business model. This appears not to be the case for the road freight industry.

The truck industry argues that the prevalence of empty freight vehicles is a result of its high competitiveness and efficiency. A wide range of competitors are often available to accept a one-way consignment, and both the consignor and its customers enjoy the low freight prices this brings to the market. An alternative argument is that this level of under-utilization is possible only because the road-user charges do not recoup the true cost of providing and maintaining the infrastructure they rely on. The prevalence of the empty vehicles is therefore more a reflection of the level of subsidy of the industry that comes from public funds.

One clarification is necessary. In many debates of this nature, the truck industry justifiably points out the silence by complainants about the demands of car users for suitable road infrastructure and their influence in gaining new roads. The potential growth of sectors such as tourism also creates strong economic drivers for new roads, so it is fair that these users pay a proportional share of the road investment. This raises the question of how far toll roads should be expanded, and this could be a separate issue that the Productivity Commission could examine. But we are influenced by the fact that the primary damage to the road pavement comes not from cars, but from heavy freight trucks. The “Fourth Power Rule” quantifies the extent to which this occurs, but there also appears to be evidence that this may under-estimate the true impacts and costs.

We would recommend that the Productivity Commission consider layering the under-utilization factor into its review of the Third Determination, noting that it is limited to calculating averages for the

- mass and distances for vehicles within a class;
- cost allocation relationships across road types; and
- expenditure over a (retrospective) three year period

The NTC should also be given encouragement to examine other factors in their preparation of the Fourth Determination.

We consider that the model established to support the Third Determination to be robust and credible, and note that its design has attracted very little technical criticism. We therefore found it disappointing that is recommendations have been rejected by the Commonwealth. If the pricing regime proposed in the Third Determination is technically correct, Australia must either be under-investing in its road infrastructure assets, or the COAG's PAYGO principles are being replaced by subsidization from Commonwealth finances.

Whichever choice of funding is choice is chosen, it must be fully transparent so that road managers will have the certainty they need to enable rational strategic planning decisions to be made relating to requests for future capital investments.

5. URBAN PLANNING ISSUES

There is repeated evidence that urban communities dislike sharing their living space with heavy freight vehicles. The vehicles' bulk creates the perception that they are a threat to small cars; poor in-service noise management can make some trucks grossly offensive, especially at night; and there is competition in the traffic stream between cars and trucks for lane changing and other normal maneuverings that make safe driving difficult.

Whilst there are increasing circumstances where planned freight corridors in greenfield urban development zones are being used to separate the two types of land-use successfully, there are many others where either existing urban development or the natural topography prevent similar rational management approaches. A prominent example is the stress encountered by both car drivers and trucks around the major ports in Sydney and Melbourne, even though efficient port access for trucks is a key to maintaining a healthy export capacity.

But the heavy vehicle road user pricing mechanism does not factor urbanization issues into its assessment. In fact, there has been a notable lack of involvement of Local Councils in

decisions relating to truck movements, and opportunities for co-operation between the two are being lost as a result.

Studies in Melbourne and Sydney conducted in 2005 revealed an expectation of a high level of traffic conflict between heavy freight vehicles and cars within the next decade. The Sydney report cited also identified concerns about the growing contribution of small carrier vans and tradesman's vehicles to off-peak road congestion, especially as the popularity of just-in-time services becomes the norm (*NSROC, 2005*). Whoever is the primary culprit, the impact will be an unavoidable increase in transaction costs for the freight transport industry and general commerce, as well as a destruction of urban amenity.

A search for solutions has included calls for congestion taxes to be applied to primary urban roads, some only for trucks and others for all vehicles. The Brereton report for example, proposed a $30 fee per TEU for movements along a nominated corridor in Sydney, but also said this should be hypothecated to improving the relevant road / rail system along the route in question.

But there appears to be no simple answer to congestion taxes. On the one hand, the truck industry could be justified in claiming priority access to roads because their movements underpin economic activity. They compare favorably against many car trips that are frivolous or avoidable, especially when they parallel an acceptable public transport opportunity. On the other hand, many peak hour car movements by workers may be unavoidable elements of the productive economy that creates the goods which trucks carry.

The contribution by trucks to urban traffic congestion could be seen as an additional externality, but as Wilson and Moore point out, trucks comprise only a minor proportion of the peak hour traffic stream. Without knowing the price elasticity of demand that applies in this circumstance, it is not difficult to agree with their supposition that

> 'congestion pricing' could encourage freight applications to switch to use the infrastructure outside of peak, thus improving utilisation of the road network, but would have no direct effect on infrastructure provision. Road prices based on location, vehicle type and time of day would facilitate the application of externality pricing. Effective application of externality pricing would depend on knowledge of location and time-specific externality values and an assessment that this form of pricing is warranted'

The Productivity Commission should provide advice on whether or not there are circumstances where congestion pricing is appropriate, either as a mechanism for preserving the utility of existing road networks, or for enhancing the efficiency of nominated road-user services.

6. INTERMODAL TERMINALS

One of the most credible mechanisms being used at present to rationalize the freight transport function is the use of strategically positioned road–rail intermodal terminals. The report by DoTARS in February 2006 is an excellent analysis of the status and future prospects for these facilities.

There is evidence however, that some of the States may need to do a little more homework to ensure that land-use planning and management regimes guarantee that the siting and operations of the terminals are socially sustainable. Approaches need to be incorporated into the State's planning framework to protect against their development being thwarted by an inability to satisfy the concerns of local communities, either because of the operations on the site or because of the disturbance that may be caused to surrounding traffic patterns in the area. In this respect, the Commission may care to examine the sad history of the proposed terminal at Enfield in Sydney, and track the status of the current proposal that is now under assessment by the NSW Minister for Planning.

Perhaps the Commission could also question if the road freight pricing model could include a levy on trucks that opt to by-pass an intermodal facility and proceed to a congested destination it serves, such as a port. The levy would be imposed at the entry to the facility if the truck could not document that it had attempted to use the intermodal. But if the terminal were to be granted these virtual monopoly powers, a financial safety-check would need to be built into the pricing regime to protect carriers against a privately operated terminal extracting an economic rent from the industry. The Commission may care to discuss this issue with the Sydney Ports Corporation to establish how it will be addressed if the proposed Enfield intermodal were to be owned and operated by a private firm.

7. CARRIAGE BY COASTAL SHIPPING

One of the underdeveloped opportunities for bulk freight carriage around Australia relates to the mode that is well positioned to capitalize on the fact that Australia is totally surrounded by water – namely, coastal shipping. But its absence from key debates about improving national transport productivity outcomes is notable (such as from the NTC's *"Twice the Task" Report, 2006*) .

The Australian Shipowner's Association has asserted that one cargo ship could carry the same load as 800 x B–Double trucks if they were to compete as carriers between two ports, and do so far more cheaply. This compares with a freight train that could replace 80 x B-Doubles. Elementary logistics analysis shows that this is a simplistic comparison, but it raises

the question about why this mode has been so consciously ignored in the formulation of the limited national integrated transport strategies that do exist.

We would strongly recommend that the Productivity Commission investigate this alternative thoroughly, because it seems to offer a *prima facie* cost-effective alternative for the long-term. The questions that should be considered could include for example, the type of ship that is most appropriate for coastal movements and their capacity; the specific ports that could accommodate a growth in coastal trade and the infrastructure this would require; limitations on the reliability and timing of supply from adverse weather conditions; and the nature of any regulatory impediments that could be eliminated under a focused microeconomic reform agenda.

It is interesting that the *New Zealand Infrastructure Audit* conducted in 2004, whilst reviewing the status of their port infrastructure, also chose not to comment on the opportunities for coastal shipping around that country. There may, however, be additional data from that review that could be helpful.

8. COMPETITIVE NEUTRALITY

An omnipresent issue in all debates about transport policy is the need to ensure that none of the policy measures implemented favor road or rail at the expense of the other. Generally the poor relative has been rail, but any rational perspective has been clouded by a decade of argument about issues like the accounting definitions for fixed and variable costs of the infrastructure provided to each mode.

We take the position that the rail system is the underdog in the debate that warrants additional help, but its not a debate based on the good players v. the bad. Australia is now suffering the product of decades of poor administration of the national rail freight system. Various Governments presided over the demise of a national asset, and in doing so invited economic domination of its core and competitive business by trucks. A sustained imperviousness to economic reform, an absence of a competitive philosophy, and strident opposition to the innovation available from third party access to the fixed rail infrastructure all indirectly supported an enormous investment in the construction of roads. Australia now has 880,000 km of them compared with only 44,000 km of rail – and this has contributed to the widely-based commercial competitiveness of road transport. An intensive effort is now being made to correct this on key rail track along the eastern seaboard, but it will take a sustained and focussed effort to address the history of neglect.

One of the key advantages of rail is its capacity to move large volumes of goods to and from ports, but this has been eroded over the past decade by our new found love of living with water vistas. Coastal residential developments that fringe key ports have proliferated, and the new residents have not been reticent at expressing opposition to the nearby rail freight handling facilities. One fear is that this pressure will threaten the ongoing operations of the some key ports that have a good rail link, unless land-use planners and regulators at the State and Local Government levels take a conscious step to ensure that these prized interfaces are protected by suitable land-use zonings (such as with industrial lands). The cost to Australia's exports could eventually be significant if the efficiency of the working ports is lost from this threat.

There are a number of policy questions relating to the interaction of rail, roads and ports that should be considered by the Productivity Commission. We consider however, that the simple step of clarifying the true costs of operating a rail network may be helpful in encouraging further commercial third party access to the rail system, and this should be given priority when opportunities are presented

9. SUMMARY

The reading list that follows cites a small sample of the reports that were published in Australia in 2005-2006 that addressed various microeconomic and macroeconomic issues relating to the effectiveness of the road, rail and port systems in Australia. Two points they universally seem to agree on is that

1. By 2020, the transport infrastructure in Australia will need to cope with moving a freight load that, by current perceptions, will be enormous.

2. Road freight's share will dominate, even though rail is expected to play a much increased role along the Eastern seaboard.

In parallel with this is the likelihood that Australia, as with all other nations, could face constraints on the availability of petrol and diesel supplies, or face fuel prices that make the transactions associated with freight transport very expensive. There is also the possibility that economic penalties may be worn by the industry from future greenhouse gas taxes on the use of fossil fuels, if alternative fuels like biodiesel don't compete as a major fuel source.

A wide range of policy instruments will be needed to mitigate the adverse social, economic and environmental effects of the inevitable traffic congestion of the future, and the use of a

dynamic pricing mechanism may be a key tool in managing this. This implies that all players in the industry, be they consignors, carriers or consumers, may have to adjust to pricing regimes that change more frequently and vary more widely, as the regulators fine-tune the road-use charges to meet the volatile circumstances that the freight industry will face.

We have not attempted in this submission to comment on the future application of Public Private Partnerships to the problem, but observe that as the pricing regimes move closer to a dynamic mass-distance variable relationship, the difference between public infrastructure and private ventures will progressively disappear. Unfortunately, the current public debate about PPPs is poorly focused, and some recent major projects appear to have been poorly conceived. But the Commission may consider that it is appropriate to examine how this tool could be more gainfully employed over the long-term, and this would certainly be welcome.

10. READING MATERIAL

Australia's Export Infrastructure, Report to the Prime Minister, Exports and Infrastructure Taskforce 2005, ABARE Canberra, May 2005.

Infrastructure Reform: Challenges, Milestones and Outcomes, 2005, Business Council of Australia

National Intermodal Terminal Study, February 2006, Department of Transport and Regional Services, Canberra

Regulatory reform in land transport, March 2006, Tony Wilson and Barry Moore, National Transport Commission

NZ Infrastructure Audit, January 2004 NZ Ministry of Economic Development

Railing Port Botany's Containers, July 2005 NSW Freight Infrastructure Advisory Board (Brereton Report)

Reforming and Restoring Australia's Infrastructure, March 2005, Port Jackson Partners Ltd, Melbourne

The potential environmental impacts of a substantial population growth in the northern region of Sydney July 2005. Prepared by The Middle Way Pty Ltd for the Northern Region Organization of Councils (NSROC), Sydney

Third Heavy Vehicle Road Pricing Determination: Draft Regulatory Impact Statement, October 2005, National Transport Commission, Melbourne

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