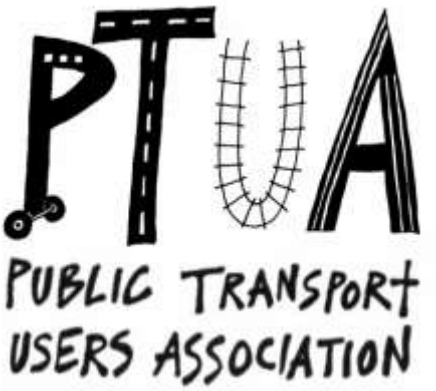
National Land Freight Strategy

Response to Discussion Paper

April 2011



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1 Objectives

The Public Transport Users Association (PTUA) welcomes the opportunity to comment on the National Land Freight Strategy Discussion Paper (Infrastructure Australia 2011). Our response starts with consideration of the vision and objectives of the strategy. We believe that identification and analysis of impediments and options should reflect these objectives rather than focussing on impediments to the continuation of the status quo.

1.1 Efficiency

We support the concept of efficiency being applied to logistics and the freight strategy. However, we do note that goods movement can be considered a transaction cost that does not add inherent value to the goods being transported. In other words, a widget is a widget whether the supply chain generates 100 tonne-km or 100,000 tonne-km of freight. From this perspective, the productivity of the economy is arguably boosted by a reduction in the proportion of economic activity representing freight.

In this sense, the land freight strategy should seek to minimise the size of the freight task by comprehensively internalising externalities and supporting land use decisions that reduce the need for transport. While the unit costs of freight (i.e. per t-km) may even increase under such policy settings, this would be offset by a reduction in the overall freight task and the associated infrastructure, operational and external costs. Such an approach could also be consistent with reducing vulnerability to a likely peak in global oil production (see section 2.1).

1.2 Sustainability

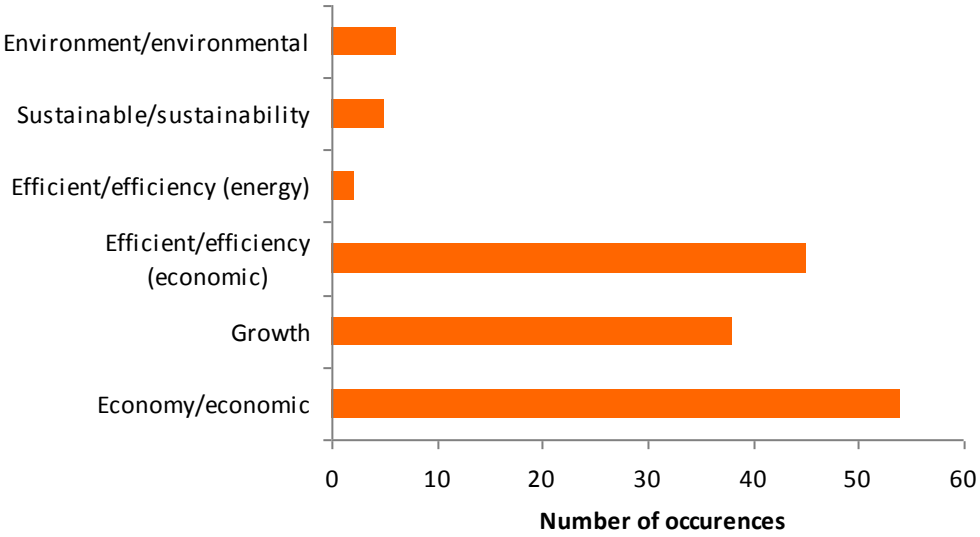
We strongly support the inclusion of sustainability as a core objective of the strategy. However this objective does not receive sufficient attention in the discussion paper (see Figure 1.1). For example, there is no explicit mention of sustainability in the long term national goals or priority actions described for the strategy on page 51 of the discussion paper.

Given the impact of the transport sector on urban amenity, air quality, climate change and resource depletion, the goals and actions falling out of the strategy must reflect sustainability objectives that are informed by the latest relevant science (e.g. regarding emission reduction trajectories required to prevent catastrophic climate change). In some cases market-based instruments may be the most appropriate measure to minimise externalities, while regulation (or a hybrid approach) may be more appropriate in other cases. Either way, sustainability must be an overarching principle that is applied to all activities pursued under the strategy.

Furthermore, until such time as externality charges are included in road user charges, road use will remain underpriced. As the resulting level of demand would not be entirely 'economic' (i.e. fully reflective of all social costs), road infrastructure providers should not attempt to meet this demand,

regardless of any apparent 'bottlenecks' that may result. On the other hand, it may be appropriate to offer rail infrastructure providers an additional subsidy in recognition of lower externalities.

Figure 1.1: Frequency of word/phrase use in discussion paper



Note: Excludes occurrences in document or organisation titles.

1.3 Safety

Like sustainability, the discussion paper devotes insufficient attention to road safety. Trucks are involved in a disproportionate number of road deaths relative to the amount of road traffic they represent (ATC 2010, p.7). We believe the land freight strategy should apply a risk management framework to road safety that starts with avoidance and removal of the risk through modeshift to rail freight, supported by enforcement of safe road user behaviour (PTUA 2011).

2 Constraints and challenges

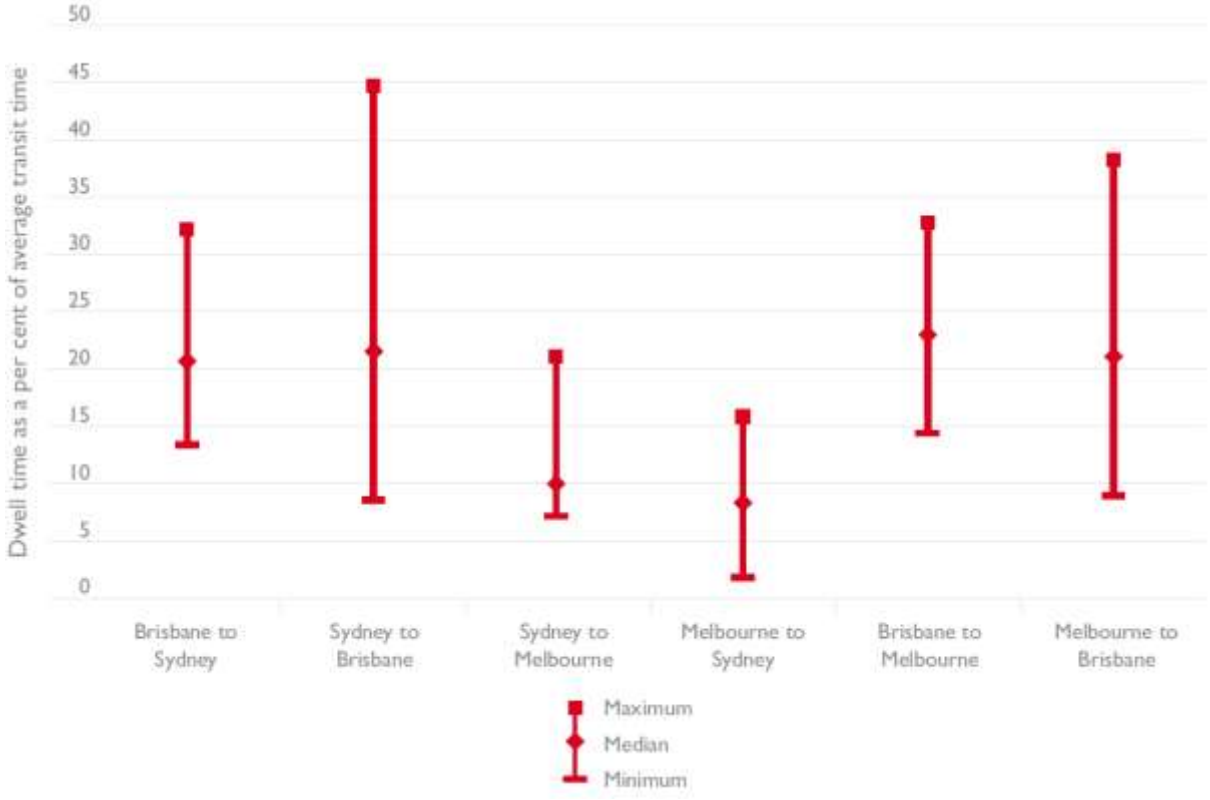
2.1 Energy security

A range of recent research indicates that liquid fuel supplies will become scarcer and more expensive over the next few years as global oil production peaks and then begins to decline (Nashawi *et al* 2010; Owen *et al* 2010; Zhang *et al* 2010; Aleklett *et al* 2010; Munroe 2010). Rail's greatly superior energy efficiency compared to road means that an expanded role for rail freight would help to shield Australia from rising energy prices. The strategy should contribute to a reduction in Australia's oil dependence.

2.2 Infrastructure condition

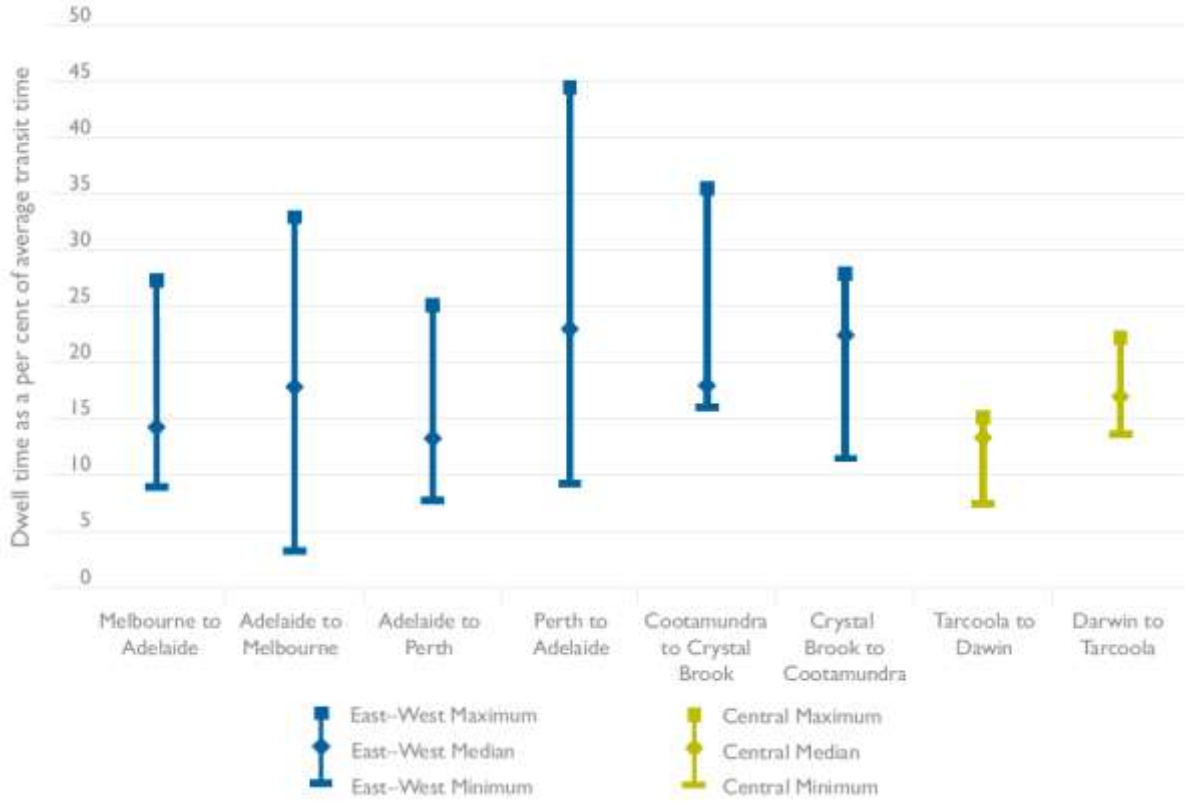
There would be understandable outrage if cars and trucks travelling between Australia's major cities had to spend up to 45 per cent of their time stationary while waiting for vehicles to pass from the opposite direction. However, this sort of time-wasting is commonplace for rail services because large sections of Australia's rail network provide only a single track which must be shared between trains travelling in either direction (see Figure 2.1 and Figure 2.2). Such delays would inevitably feed perceptions of poor reliability that hamper the competitive position of rail relative to road.

Figure 2.1: Intermodal train scheduled dwell times on North–South corridor, as a percentage of scheduled transit times, June 2008



Source: BITRE 2010

Figure 2.2: Intermodal train scheduled dwell times on East–West and Central corridors, as a percentage of scheduled transit times, June 2008

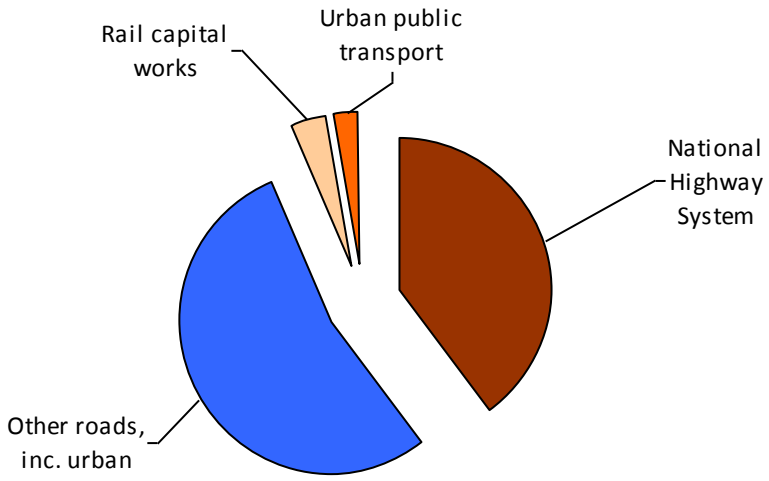


Source: BITRE 2010

The Australasian Railway Association has identified a number of structural deficiencies that are undermining the effectiveness of Australia's freight sector. These include different track gauges, that prevent rolling stock from using all parts of Australia's rail network, and poor track quality and alignments, which reduce speeds and maximum loadings (ARA 2010, p.13).

The poor condition of much of Australia's rail network is exemplified by the shift of freight from rail to road on the Adelaide-Perth corridor where rail would be expected to hold a strong competitive advantage (*7.30* 7 April 2011). The relative neglect of rail infrastructure was also made apparent in the various AusLink corridor strategies which typically found road links to be in better condition than parallel rail links (PTUA 2009, pp.6-18). Unfortunately this does not come as a surprise given the historical imbalance in road and rail investment (see Figure 2.3). This pattern of infrastructure investment is a major factor in current freight mode choice and would need extensive correction before there could be any pretence of 'competitive neutrality' between road and rail.

Figure 2.3: Federal Transport Funding - 1974-2004



Source: Laird 2004

2.3 Interoperability

The break of gauge problem is a major barrier to interoperability across Australia's rail network. The additional handling that would result from moving freight across different gauges renders rail uncompetitive in many cases, even where it may be easily more efficient in the absence of gauge differences. The existence of different gauges also acts as a barrier to entry to other geographical markets and thereby restricts above-rail competition which would encourage efficiency. Local government in northern Victoria has noted that the lack of a uniform rail gauge "limits the potential for connectivity interstate and limits the potential for a competitive environment" (Northern Victoria Regional Transport Strategy 2010).

A pre-feasibility investigation into standardising five of Victoria's key regional broad gauge rail lines has found benefits with a Net Present Value of $100 million including reduced road pavement damage, less traffic congestion and fewer road deaths and injuries (VFLC 2010, pp.50-60). Particularly in view of the need to reduce Australia's carbon emissions and dependence on liquid fuels, rail network upgrades such as these should be a priority for national transport infrastructure investment and the Regional Infrastructure Fund.

The existence of different gauges hampers the efficient operation of the national freight network even where breaks of gauge occur off the identified national network. Most road freight can move around with relative freedom from national highways to local roads off the network without any need for transhipment, even though such roads may be suboptimal.

On the other hand, rail vehicles are completely restricted to routes of a given rail gauge. This makes it impractical to move rail freight from a non-standard regional rail network to a standard gauge interstate mainline, even if rail would be more efficient in the absence of gauge differences.

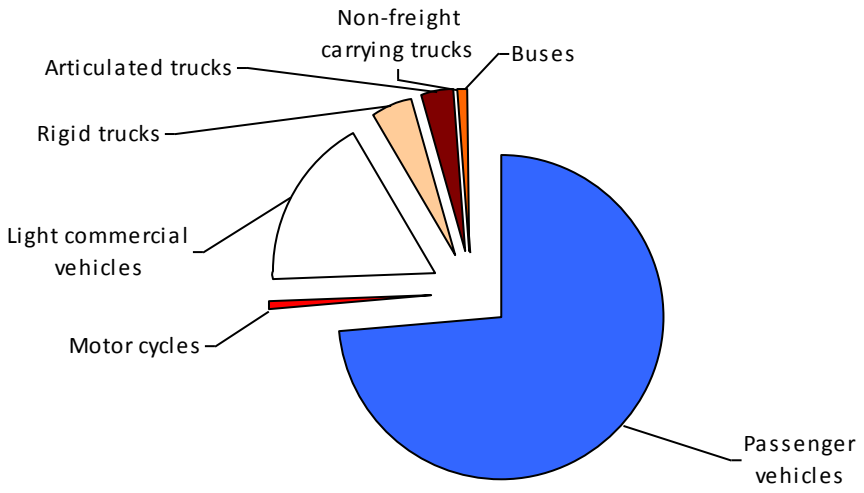
This significantly more acute interoperability challenge for rail (relative to road) means that it is vital for the national land freight strategy to adopt a broader approach to network definition for rail than

is required for road. It also highlights the greater urgency of standardising rail networks to allow efficient mode allocation to take place and reveal latent demand for infrastructure capacity.

2.4 Responsiveness to demand

As noted in the discussion paper (pp.14-16), the great majority of traffic on Australian roads is made up of low occupancy cars (see Figure 2.4). A significant portion of the remainder is comprised of non-business use of commercial vehicles or empty running of freight vehicles (see also Figure 2.6). This passenger task presents the greatest barrier to road freight movements and will not be solved by expanding road capacity for general traffic. Road traffic flow is dependent upon good quality passenger transport alternatives, and encouraging people to shift to public transport, walking and cycling should be a core part of Australia's land freight strategy. On the other hand, expanding road capacity can ultimately result in worse traffic conditions and harm freight productivity (PTUA 2008a, pp.15-19).

Figure 2.4: Motor vehicle kilometres in Australia

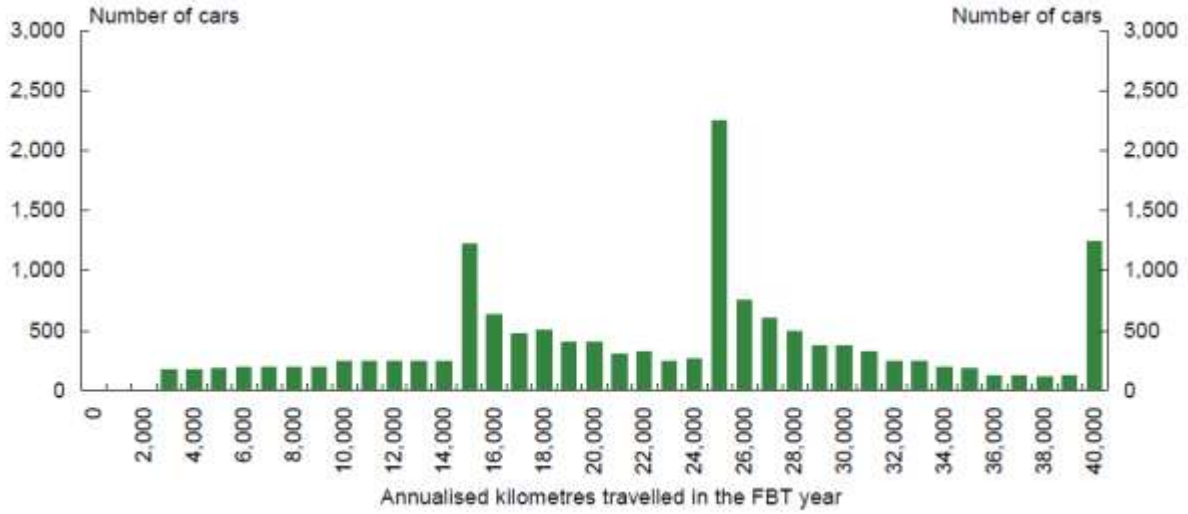


Source: Australian Bureau of Statistics

2.4.1 Perverse incentives for car use

The statutory method for valuing car fringe benefits grants larger tax concessions the further the vehicle is driven each year. In contrast to most tax deductions, vehicle use for non-business purposes or for travel of a private or domestic nature is counted as part of the annual distance travelled. This creates an incentive to drive as much as possible instead of walking, cycling or using public transport, and is demonstrated by the number of vehicles that are driven beyond the various statutory formula thresholds (see Figure 2.5).

Figure 2.5: Number of vehicles using statutory method by kilometres travelled



Source: Henry 2009

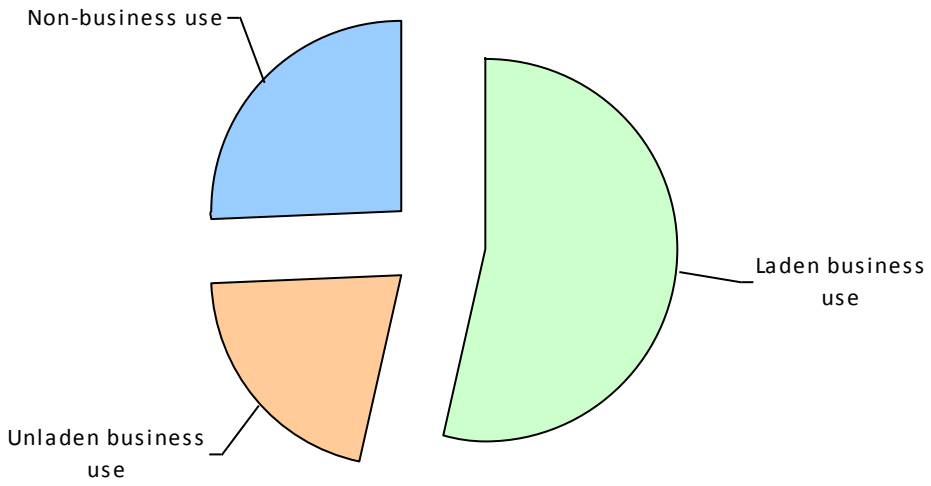
The direct cost to government of the statutory method concession is rapidly growing beyond $1 billion per annum, which does not count the costs of additional carbon emissions, congestion and business motor vehicle expenses resulting from the statutory incentive in favour of excessive driving. While there may be a case for offering a simple alternative to the cost basis, such an alternative should neither encourage additional driving nor result in such large tax expenditure. As recommended by numerous reports, inquiries and submissions, it is now time for the statutory method to be abolished in its current form. Any replacement method should encourage sustainable travel decisions and result in negligible tax expenditure.

Elimination of this concession would free up resources to augment urban rail capacity and to reduce conflicts between passenger services and freight, and would reduce the amount of traffic impeding road freight movements.

2.4.2 Vehicle utilisation

Trucks spend a significant amount of their time on the road either empty or only partially laden. This inefficient vehicle utilisation increases road congestion and pavement damage, air and noise pollution, operating costs for freight operators and freight costs for business and consumers. Over one quarter of commercial vehicle use is for non-business purposes (see Figure 2.6). Much of this travel could be undertaken by public transport, walking or cycling if public transport services and walking and cycling facilities were of an adequate standard. Of the remaining vehicle use that is for business purposes, capacity is often under-utilised (VCEC 2006, p.324-325). With more efficient vehicle utilisation, the same volume of goods could be carried with fewer vehicle movements.

Figure 2.6: Use of light commercial vehicles, rigid trucks and articulated trucks



Note: Nearly half of total commercial and goods vehicle-kilometres are unladen or for non-business purposes. Backloading and other efficiency measures could reduce this empty running.
Source: Australian Bureau of Statistics

Freight operators and forwarders in various countries around the world are improving efficiency and cutting costs by consolidating loads to make better use of truck capacity (PTUA 2008b, pp.30-32). For example:

- The London Construction Consolidation Centre, acting as a distribution centre for four construction projects in central London, reduced delivery vehicle movements by 70 per cent, reduced CO2 emissions by 73 per cent, improved delivery reliability and gave builders greater flexibility in order size (Department for Transport 2007);
- The Tankshare fuel delivery groupage service in Essex, UK reduced carbon emissions by 38 per cent, vehicle mileage by 41 per cent, and time on the road by about one third (Department for Transport 2006);
- Through the Efficient Consumer Response (ECR) UK Sustainable Distribution initiative, 40 British retail and manufacturing brands have collaborated in initiatives such as sharing vehicles to reduce truck movements by 124 million miles over 3 years (IGD 2010).

Given the low vehicle utilisation of freight vehicles in Australia, there is enormous potential to shift more freight with little or no growth in truck traffic. In light of the need to reduce emissions and fuel use, governments should use regulatory and pricing tools to encourage more efficient utilisation of the existing truck fleet rather than taking approaches such as road expansion that encourage additional freight vehicle movements with often poor economic returns (Lucas 2010b; Lucas 2010d).

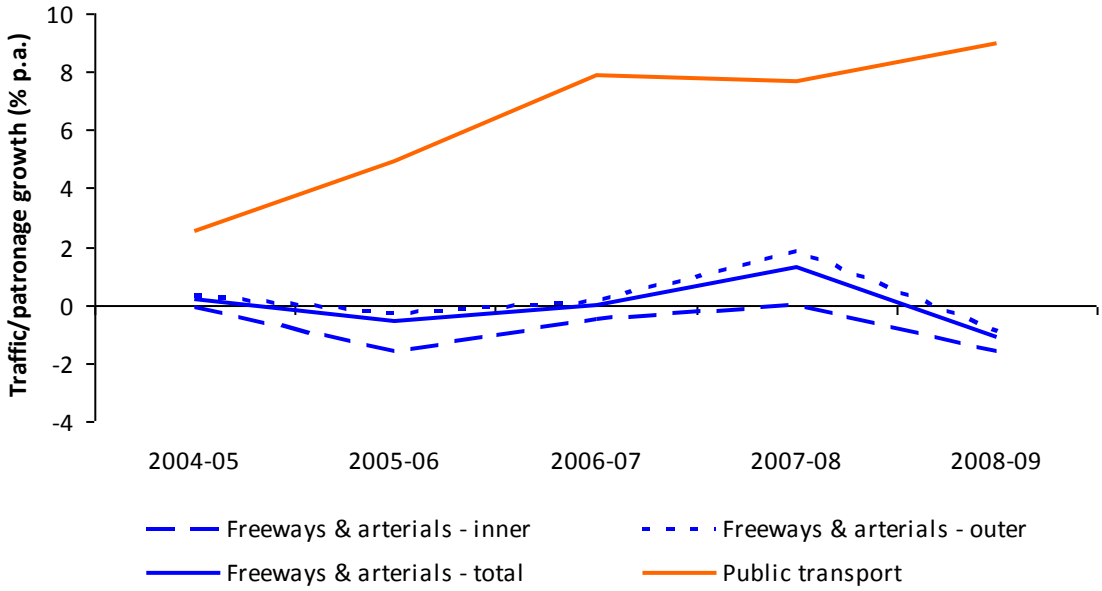
2.5 Capacity for growth

The share of Australia's land-based freight carried by rail is expanding due to a combination of factors, including rising fuel costs (see section 2.1), growth in commodity exports, and some recent investments in rail infrastructure. This trend can be expected to continue with commodity exports forecast to maintain their current growth, energy prices resuming their upwards trend, and interstate freight increasing in importance.

This will result in road freight volumes growing much more slowly than predictions made in recent years (PTUA 2007b, pp.15-20; PTUA 2008b, pp.29-32), and rail freight will become increasingly competitive across a range of markets and corridors that have generally been regarded as the preserve of road freight (ARA 2010, p.13). The ability of Australia's freight sector to respond to these challenges, and to provide cost-effective freight services to Australian business, is severely compromised by a backlog of investment in Australia's rail network as outlined in sections 2.2 and 2.3.

There is also a strong need to shift a large part of the passenger task from road to rail for economic (e.g. congestion) and environmental reasons. Although we believe that capacity constraints are sometimes overstated or at least poorly articulated, the national land freight strategy must prioritise the identification of such rail capacity constraints and the most effective means of resolving them to the benefit of both the passenger and freight tasks. In contrast, motor vehicle traffic has reached a plateau or even fallen in some locations (see Figure 2.7).

Figure 2.7: Growth in vehicle traffic and public transport patronage in Melbourne



3 Priorities and actions

3.1 Identifying a national land freight network

As discussed in section 2.3, interoperability requirements dictate that the strategy must take a broader approach to identifying a national rail network than it need take for a national road network. This means that intrastate rail lines serving significant freight generating regions should be prioritised for integration with the national rail network. At the most basic level this will sometimes require gauge standardisation, however other measures to ensure interoperability may be needed as well or instead (e.g. train control systems, load standards, etc).

In the short term, we believe the priorities should include rail lines running parallel to road links identified in the indicative national land freight network, such as the Melbourne-Mildura corridor and Melbourne-Shepparton-Brisbane corridor[1]. It has been noted that competition is strongest where a choice of operators is available. Another short-term measure would be facilitating future standardisation by ensuring ongoing track work includes gauge convertible sleepers (e.g. Regional Rail Link; metropolitan maintenance; etc). Over time, there should be a move towards complete standardisation of the rail network to enable full interoperability. We suggest the following indicative sequencing within Victoria:

1. Melbourne to Cobram, Tocumwal and Dookie via Shepparton
2. Geelong to Mildura, Yelta, Pinnaroo, Kulwin and Robinvale, via Ballarat and Maryborough
3. Melbourne to Piangil, Moulamein and Deniliquin via Bendigo, including Bendigo to Inglewood and Maryborough
4. Heywood to Mount Gambier
5. Melbourne to Ararat via Ballarat
6. Geelong to Dennington
7. Melbourne to Bairnsdale, Maryvale and Leongatha

By enabling greater interoperability, gauge standardisation would facilitate the use of the most efficient vehicles, promote inter and intra-modal competition, and – to the extent freight is shifted to rail – improve amenity, safety and environmental outcomes.

3.2 Completing a strategy

We agree that the accuracy of forecasts - upon which infrastructure investments totalling many billions of dollars are predicated – should be tested. We do not believe that bullish projections for

[1] It follows that associated branch lines would also require gauge standardisation, such as Ouyen to Pinnaroo.

road freight growth are necessarily robust (PTUA 2007b, pp.15-20; PTUA 2008b, pp.29-32), or that such growth is desirable given a choice.

Projections should be dismissed if they are inconsistent with realistic energy and climate scenarios or with sustainability and liveability aspirations. The purpose of a strategy is to deliver outcomes that are consistent with the given environment (e.g. carbon constraints) and the chosen objectives (e.g. amenity and safety). Actions should be identified and prioritised based upon their ability to deliver on those strategic objectives.

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