

**FREIGHT RAIL PRODUCTIVITY
REVIEW**

DRAFT POSITION PAPER

March 2009



National Transport Commission

**Prepared by
National Transport Commission**

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Freight Rail Productivity Review: Draft Position Paper

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Abstract:	Consultation with the rail industry identified poor productivity as a key concern for the sector, with issues such as infrastructure and asset deficiencies, intermodal terminal access and passenger/freight interactions raised as key impediments. A number of existing reforms exist which are likely to impact on productivity within the rail industry and across the transport sector as a whole. This paper therefore investigates how rail currently operates as part of the transport sector and identifies the key barriers to improved productivity. This includes an analysis of the possible gains from continuing with the current transport reform agenda.
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FOREWORD

The National Transport Commission (NTC) is an independent body established under Commonwealth legislation and an inter-governmental agreement. NTC provides independent advice to the Transport Ministers of the federal, state and territory governments on land transport regulatory and operational reform.

Transport is a key input into Australia's economy. Improved transport productivity can significantly reduce the cost of freight and, ultimately, the cost to consumers for goods and services. The NTC is currently progressing a number of reforms that are expected to improve productivity of road freight transport. It is therefore important to investigate the opportunities to improve productivity in the rail sector as both modes play an important role in the transport sector and Australia's economy as a whole. With this in mind, the NTC has been investigating impediments to improved productivity within the freight rail sector and the appropriate role of government in addressing productivity concerns.

This paper follows on from the Rail Productivity Issues Paper that was released in August 2008, calling for submissions to the review process. The NTC received a number of submissions in response to the issues paper, which helped to inform the development of this report. Extensive consultation with stakeholders across the rail industry, government agencies and freight customers was also undertaken to better understand the issues facing rail transport in Australia.

In addition, this review has taken into account the outcomes from the supply chain pilot studies that the NTC has undertaken in parallel to the freight rail productivity review. These studies have investigated the coal, grain, intermodal and livestock supply chains and provided valuable insights into the use of rail within these supply chains.

A final position statement for the freight rail productivity review is expected to be released in April/May 2009. The NTC is seeking feedback on the issues and recommendations put forward in this paper to inform the development of the final position statement. The recommendations from the freight rail productivity review that will be provided in the final position statement will inform the NTC's 2009-2010 work programme.

Submissions to this paper are being sought until 9th April 2009. Submissions should address the appropriateness of the key issues and recommendations detailed in this paper. Interested parties are able to make a submission to the review online at www.ntc.gov.au or by mail. For further information regarding the submission process please contact Matthew Clarke on (03) 9236 5028 or mclarke@ntc.gov.au.

The NTC acknowledges the work of Meena Naidu, Matthew Clarke, Ian Hunter, Annabelle Ong and Emily Porter in preparing this report.



Greg Martin

Chairman

SUMMARY

Background of the rail productivity review

In 2007, as part of the NTC strategic planning process, low rail productivity was highlighted as a key impediment to the improved use of rail within the transport sector. Consultation highlighted the concern that productivity gains within the sector have not been occurring at the same level as experienced within the road industry. As a result, the NTC initiated an investigation into the barriers to improved freight rail productivity as part of the NTC strategic plan approved by the Australian Transport Council (ATC).

In January 2008, the NTC commissioned John Hearsch to investigate productivity issues within the rail industry (Hearsch, 2008). The Hearsch Information Paper was completed in March 2008 and highlighted the need for more robust analysis of productivity barriers within the rail industry. In August 2008, the NTC released an issues paper with the objective to raise key issues impacting on the productivity of rail and to facilitate submissions to the review from interested parties. Twenty-one submissions were received in response to this paper from a range of public and private organisations.

Objectives of this review

The review aims to identify how freight rail can operate more productively within the broader transport sector. More specifically, the review is aimed at:

- understanding the role of rail within Australia's transport system;
- identifying productivity impediments within the freight rail sector; and
- developing recommendations for government to effectively intervene in the rail sector to improve outcomes for the transport system as a whole.

Recommendations need to have regard to the current road and rail reforms as agreed by the Council of Australian Governments and the Australian Transport Council. For the purposes of the review, productivity is defined as:

“...a measure of the rate at which outputs of goods and services are produced per unit of input (labour, capital, raw materials, etc). It is calculated as the ratio of the quantity of outputs produced to some measure of the quantity of inputs used.”
(Productivity Commission, 2008a)

Current freight rail environment

There are two key characteristics that need to be taken into account when assessing rail productivity impediments. Firstly, rail freight transport is part of a supply chain that generally involves intermodal transfers at terminals or ports. As a result, productivity impediments in the rail sector need to be considered in the context of the broader supply chain. Secondly, rail is currently predominantly used for intrastate bulk freight transport and long-haul (east-west) intermodal freight transport as it provides the lowest cost transport option in these markets.

Additionally, the rail transport market in Australia is characterised by varying degrees of:

- Vertical integration or separation – with the exception of Queensland and the private railways in the Pilbara, the track owner and the train operators are vertically separated.

- Horizontal integration or separation – there are a number of companies that combine several functions within the rail industry (e.g. Asciano is a train operator, intermodal terminal operator, stevedore and owns rolling stock). In contrast, there are also specialised firms that only provide one function (e.g. El Zorro only operates trains).
- Public and private ownership – above and below rail services are provided by a mixture of private and government owned corporations around Australia. For example, Queensland Rail (the track manager in Queensland and above rail service provider) is a government owned corporations while WestNet (the track manager in Western Australia) is a privately owned company.

Consultation outcomes

During the consultation with rail customers, below and above rail operators and government, a large number of issues were raised. A number of key rail customers have indicated the desire to use more rail for intermodal freight movements as they value a non-road option because of a perception of reduced road competition due to industry consolidation. A desire to improve environmental performance was also raised as an issue. However, it is often not economical to use rail due to inferior service, transit times and reliability compared to road transport (and sea transport for east-west movements).

Below rail operators highlighted a lack of planning and policy direction from government for rail infrastructure and intermodal terminals as one of the major productivity impediments. Resulting infrastructure deficiencies and bottlenecks in urban areas were also mentioned as one of the impediments to improved freight rail productivity.

Above-rail operators raised the same issues put forward by below-rail operators, demonstrating the interdependency between above and below rail service providers. Additionally, above-rail operators mentioned a lack of certainty around future track investments and demand for rail freight movements as one of the factors preventing efficient investment in rolling stock and therefore reducing rail productivity.

Productivity impediments and solutions

A range of issues have been raised that impact on the productivity of the rail industry. As a result, it is important to distinguish between problems with the underlying investment and regulatory frameworks and those issues that are symptoms of these frameworks.

Overall, five areas of productivity impediments can be identified:

1. Policy, planning and investment
2. Economic regulation and market structure
3. Environmental, safety and technical regulation and standards
4. Human capital
5. Productivity measurement

Table ES1 provides an overview of the identified productivity impediments for each area and the recommendations.

Table ES1: Productivity impediments and solutions

Productivity impediments	Significance	Recommendations and Implementation
Policy, planning and investment		
Lack of clarity regarding the roles and objectives of governments and government owned corporations	Medium	<p>NTC should work with state and commonwealth governments in developing an improved national framework for rail planning and investing across Australia. This will build on existing work already undertaken through the National Transport Policy Framework agreed to by ATC, the AusLink Corridor strategies and by state and territory governments.</p> <p>This would be carried out at a national level where benefits can be gained from taking a national focus. However, this process will aim to build on rather than replace existing planning work undertaken by the states.</p>
There may be gains from a long term and holistic approach to planning	High	<p>This would encompass:</p> <ol style="list-style-type: none"> 1. Coordinated and prioritised transport objectives across all levels of governments and government owned corporations to ensure that the transport policy objectives agreed to by ATC are implemented and carried out consistently and cohesively across all governments.
Government funding decisions are not made as part of a transparent or consistent framework	High	<ol style="list-style-type: none"> 2. A long-term rail, ports and roads planning framework to undertake coordinated planning and investment across governments and encourage private investment in transport infrastructure. This framework should address interactions including land use planning, supply chain interfaces, passenger and freight conflicts, existing market distortions and social objectives and take a national focus where necessary. This should build upon the work undertaken through the AusLink Corridor Strategies and Supply Chain Pilots. 3. Identifying existing strategic intermodal terminals and planning for future strategic terminal needs (this should be conducted in conjunction with the development of an appropriate and nationally consistent model for terminal access). 4. Industry led coordination along the supply chain where advantages can be gained. Governments may have a role in providing appropriate support to industry-led outcomes through: <ul style="list-style-type: none"> ▪ communicating coordination requirements to comply with national competition policy and other government objectives; and ▪ as a last resort, arbitrating/facilitating an industry-led solution where significant supply chain failure exists and industry is unable to develop a workable solution. 5. Governments developing a consistent and transparent national framework for assessing and providing government funding to government owned rail

Productivity impediments	Significance	Recommendations and Implementation
		<p>corporations and private rail operators. Rail businesses receiving government funding should be subject to reciprocal reporting and monitoring obligations to ensure that the economic objectives of the funding allocations are being met. This will be in addition to the monitoring and reporting obligations that exist.</p>
Economic Regulation and Market Structure		
<p>Regulated vertical separation of low volume rail lines is not the optimal market structure as competition benefits are limited</p>	<p>Medium</p>	<p>Relevant state governments should investigate the potential benefits of alternative market structures such as reintegrating and potentially privatising the existing low volume (grain) lines to improve productivity in regional rail networks.</p>
<p>Varying rail access and pricing regulation across states increases the regulatory burden</p>	<p>Low to Medium</p>	<p>In the medium term, NTC should investigate, in conjunction with the Australian Competition and Consumer Commission and state regulators, the costs and benefits of a nationally consistent rail access and pricing framework for the interstate and intrastate lines. This should include determining the appropriate institutional structure for managing economic regulation of rail, including the benefits of a national economic rail regulator as well as the potential benefits of a broader national transport (multi-modal) regulator.</p> <p>This is not seen as an immediate priority for improving productivity in the freight rail sector.</p>
<p>Inconsistent access to intermodal terminals can be an impediment to rail competition</p>	<p>High</p>	<p>The NTC should develop a nationally consistent regulatory model to ensure that strategically important terminals are regulated on a case by case basis to ensure open access. This should be conducted in line with a comprehensive planning process to identify strategic terminals (as discussed above) and ensure that open access regulation is applied where necessary.</p> <p>This needs to be carried out with strong input from industry to ensure private incentives to invest in terminal infrastructure are not compromised.</p>
<p>Rail access prices may not always lead to the most efficient outcome</p>	<p>Medium</p>	<p>The existing requirements on rail businesses and regulators to undertake pricing determinations should be reviewed by the relevant state and commonwealth governments and regulatory bodies to ensure pricing regulation is only applied where rail track managers have market power. Where strong competition from other modes exists regulators should only intervene to set access conditions.</p> <p>Regulators should be proactive in working with track managers to develop more efficient access prices, such as time-dependent pricing to reflect the scarcity costs of</p>

Productivity impediments	Significance	Recommendations and Implementation
Technical standards are not harmonised	Medium to High	<p>Industry bodies such as the Rail Industry Safety and Standards Board should continue to develop technical and infrastructure standards to improve harmonisation and interoperability across the rail industry and rail networks. Rail businesses in turn should adhere to these standards when investing in new assets and technologies. Governments, where they are involved in purchases regarding rail technologies and assets, should also adhere to industry agreed standards and ensure mutually compatible investment decisions across all sectors of the rail industry.</p> <p>In addition, the integrated planning process identified above should aim to identify areas where further technical harmonisation in the rail industry may be economically viable for Australia's rail networks.</p>
Human Capital		
Suboptimal labour recruitment, training and utilisation work practices	Low	<p>Rail businesses and industry groups should continue to work with the Workforce Planning and Skills Working Group to achieve better recruitment, training and work practices. The rail industry should also increase the use of existing national training packages available.</p>
Measuring productivity		
Lack of available freight rail productivity data	Medium	<p>Comprehensive productivity indicators should be developed by the Bureau of Infrastructure, Transport and Regional Economics or another appropriate national body. The Bureau of Infrastructure, Transport and Regional Economics would be well placed to undertake this work as they already publish a number of rail performance indicators in conjunction with the Australasian Railway Association.</p> <p>In developing these indicators, the relevant body should work closely with the Strategic Research and Technology Working Group who have been working on identifying strategic data requirements. Governments should work closely with the relevant body to ensure adequate industry data is available to governments for transport policy development and planning purposes, with governments investigating the option of mandating the provision of data from rail businesses where necessary.</p> <p>The collection of rail productivity data should also be undertaken with a supply chain focus to enable policy and planning to occur across all modes.</p>

Conclusion

The analysis of the key productivity impediments across the freight rail industry has shown that further work is necessary and that there is a role for government in addressing productivity impediments in the rail sector. Most importantly, governments should:

- develop more coordinated and transparent frameworks to facilitate planning and investment within the rail industry and build on the planning and investment already undertaken by governments individually;
- work with industry to ensure that policy objectives for funding being provided are being met. This will require reciprocal obligations from industry in terms of ensuring government monies are used efficiently and providing adequate information to governments regarding funding outcomes and expected future investment requirements; and
- reduce distortions across the transport sector through the progression of the COAG road reform plan and improved use of rail and terminal access arrangements.

Industry can also play a strong role in improving productivity through:

- Developing and adhering to technical, operational and environmental industry standards and guidelines; and
- Working to improve coordination along the supply chain.

The NTC also strongly recommends a review of passenger rail productivity as part of a broader look into the issues impacting on the movement of people across all modes around Australia. Given the strong interdependencies between passenger and freight rail, a number of the impediments that impact productivity within the freight sector are likely to exist within the passenger rail sector. As such a further review of passenger rail productivity is likely to identify opportunities for improved government intervention and ensure the rail sector as a whole can benefit from continued productivity growth.

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1. INTRODUCTION

This section will:

- Provide the background and objectives of the rail productivity review
- Outline the current reforms occurring within the transport sector and their potential impact on rail productivity
- Outline the structure of this report

1.1 Background

In 2007, as part of the NTC strategic planning process, low freight rail productivity was highlighted as a key impediment to the improved use of rail within the transport sector. Consultation highlighted the concern that productivity gains within the sector have not been occurring at the same level as experienced within the road industry. As a result, the NTC initiated an investigation into the barriers to improved rail productivity as part of the NTC strategic plan approved by the Australian Transport Council (ATC).

In January 2008, the NTC commissioned John Hearsch to investigate productivity issues within the rail industry (Hearsch, 2008). The Hearsch Information Paper was completed in March 2008 and highlighted a number of areas for further investigation, including:

- lack of clear government policy for rail;
- less than satisfactory asset utilisation;
- unsatisfactory labour utilisation in some areas;
- inadequate business and operational systems;
- sub-optimal intermodal interfaces; and
- poor information regarding the performance of rail.

This paper highlighted the need for more robust analysis of productivity barriers within the rail industry. The NTC has therefore been conducting a review of freight rail productivity as part of its 2008/09 work programme.

In August 2008, the NTC released an issues paper as part of the rail productivity review. The objective of this paper was to raise key issues impacting on the productivity of rail and to facilitate submissions to the review from interested parties. Twenty-one submissions were received in response to this paper from a range of public and private organisations (refer to Appendix 1 for a list of submissions). All submissions received as part of the review, as well as the Hearsch paper and issues paper are available on the NTC website.

1.2 Objectives of review

The review aims to identify how rail can operate more productively within the broader transport sector. More specifically, the review is aimed at:

- understanding the role of freight rail within Australia's transport system;

- identifying productivity impediments within the freight rail sector; and
- Developing recommendations for government to effectively intervene in the freight rail sector to improve outcomes for the transport system as a whole.

The focus of this review is on rail freight. Passenger rail is only investigated where it interacts with freight services. Outcomes of this review will provide the basis for NTC's future approaches to freight rail productivity issues.

1.3 Current productivity reforms within the transport market

This review is being conducted in parallel to a number of existing transport reform projects that are aimed at increasing the efficiency of the transport sector. This includes reforms being undertaken as part of the Council of Australian Governments (COAG) national reform agenda and those being progressed under the National Transport Policy Framework.

These reforms are expected to deliver productivity benefits for both road and rail transport. However, the current reform agenda that affects rail is mainly focused on specific issues such as rail safety regulation, rather than addressing productivity impediments more broadly. Additionally, a number of rail reforms identified by COAG through the Competition and Infrastructure Agreement (see section 1.3.1) have not been progressed according to timelines. As a result, there is a need to take a comprehensive approach to identifying rail productivity reform needs.

1.3.1 COAG reform agenda

A number of transport reforms have been agreed to by COAG as part of the national reform agenda. These include:

- the Competition and Infrastructure Reform Agreement (CIRA);
- transparency in enunciating the objectives for funding of Community Service Obligations (CSOs);
- road reform plan; and
- implementation of national rail safety reforms.

These reforms are aimed at removing inconsistencies in the pricing and regulation of transport infrastructure and services, creating a more efficient transport sector and reducing distortions between transport modes.

The Competition and Infrastructure Reform Agreement

This reform aims to create a simpler and more consistent national regulatory model for rail infrastructure access and pricing. This would involve application of a national access and pricing model, based on the Australian Rail Track Corporation undertaking², to all agreed nationally significant railways (see section 3.1 of the Competition and Infrastructure Reform Agreement in Appendix 2). Economic regulation of rail infrastructure would also only be applied where the benefits outweighed the costs (COAG, 2006b). More

² The Australian Rail Track Corporation undertaking refers to the pricing and access conditions for Australian Rail Track Corporation track that are submitted to the Australian Competition and Consumer Commission for approval.

information on the Competition and Infrastructure Reform Agreement is contained in Appendix 2.

The Competition and Infrastructure Reform Agreement was signed by COAG in February 2006. Further endorsement was given to the reform in April 2007, when COAG highlighted the reform as addressing recommendations arising from the 2006 Productivity Commission Review into Road and Rail Freight Infrastructure Pricing (key findings from this inquiry are included in Appendix 3). However, work on enhancing the existing national system of rail access has stalled, suggesting that a number of issues identified by COAG and the Productivity Commission have not been addressed. These issues, and the potential solutions put forward through the Competition and Infrastructure Reform Agreement, will be investigated as part of this review in the context of their impact on the productivity of the rail sector.

Transparent objectives for funding Community Service Obligations

In April 2007, COAG agreed that governments will ensure transparency in clarifying the objectives for funding decisions for Community Service Obligations (COAG, 2007a). However, the work undertaken in progressing this reform has only focused on identifying community service obligation payments to the road sector.

COAG road reform plan

COAG has agreed to implement a road reform plan, which will create a more efficient framework for heavy vehicle pricing. This will improve outcomes across all transport modes by providing better pricing signals for efficient usage and investment in the infrastructure. This is largely achieved by minimising cross subsidisation within the road transport sector. The first phase of the reform is well progressed and planning for phase two has commenced.

While the progression of the COAG road reform plan will improve efficiency within the road transport sector, it also highlights the need for complementary reform in the rail sector. This will be necessary to ensure neutrality in regulation and pricing across all transport modes.

National rail safety reforms

In line with the COAG reform agenda, the NTC developed a national model Rail Safety Bill in 2006. This bill has been implemented by Victoria, South Australia and New South Wales. In addition to this bill, a number of other rail safety reforms were also agreed to by COAG, some of which have been delayed due to a number of jurisdictions failing to implement the model legislation. These include (COAG, 2007b):

- the passage of the model Rail Safety Bill by jurisdictions;
- identification of ‘local variations’ through a variations register;
- the establishment of national rail operator accreditation;
- the development of a framework to support nationally consistent training for rail safety regulators;
- the standardisation of rail safety data collections;
- increased coordination between regulatory agencies;
- the development of a national train driver licensing framework; and
- a review of rail safety regulatory arrangements.

Subsequent to this, in 2008 COAG asked ATC to prepare regulatory impact statements for a single national system for each of rail safety regulation and investigation, maritime safety regulation and heavy vehicle regulation (ATC, 2008a). ATC directed NTC to prepare the regulatory impact statement for rail safety (NTC, 2008). A single, national rail safety regulatory and investigation framework is expected to reduce the regulatory burden for rail operators that currently have to comply with different regulations in different jurisdictions. The draft regulatory impact statement outlines the possible benefits available and is currently available on the NTC website (NTC, 2008). ATC will report to COAG in the first half of 2009 on the outcomes of the regulatory impact statement.

1.3.2 National Transport Policy Framework – a new approach

In February 2008, ATC agreed that there is a need for a national approach to transport policy and endorsed the National Transport Policy Framework (ATC, 2008b) (for further detail see Appendix 4). The National Transport Policy Framework includes the following vision:

“[...] a safe, secure, efficient, reliable and integrated national transport system that supports and enhances our nation’s economic development and social and environmental well-being.”

This will be achieved through the development of transport policy that supports integrated planning and investment of transport infrastructure and services across all modes. This will require significant reform across all transport modes to create a level playing field to ensure transport users can make choices regarding the most efficient and socially optimal transport mode.

The National Transport Policy Framework put forward objectives and principles intended to guide future transport policy development. Of these, a number are particularly relevant for rail productivity:

- **Objectives:**
 - *Economic:* To promote the efficient movement of people and goods in order to support sustainable economic development and prosperity.
 - *Transparency:* Transparency in funding and charging.
 - *Integration:* Promote effective and efficient integration and linkage of Australia’s transport system with urban and regional planning at every level of government and with international transport systems.
- **Principles:**
 - *Infrastructure pricing:* Sending the appropriate signals to influence demand and supply.
 - *Competitive markets:* Establishing competitive markets wherever possible to minimise the need for regulation.
 - *National Regulation:* Where regulation is required, adopt a national perspective.

Supply Chain Pilot Studies

The NTC is currently completing four pilot studies into the livestock, coal, grain, and inter-modal supply chains (ATC, 2008b). These studies have been undertaken in response to an ATC directive through the National Transport Policy Framework in cooperation with the Capacity Constraints and Supply Chain Performance Working Group, led by the South Australian Transport Minister. The purpose of these studies is to help governments better understand the operation of key Australian supply chains and identify opportunities for improved government intervention within the supply chains.

In September 2008, the NTC appointed consultants to investigate each of the four supply chains, with final reports and recommendations delivered in early 2009. These reports have helped to inform the freight rail productivity review due to the extensive use of rail within some supply chains and the interface issues explored through these studies. While these studies have focussed on the efficiency of individual supply chains, the rail review will look more broadly at the performance of rail within the transport sector as a whole.

1.4 Structure of this paper

The report is structured as follows:

Current rail environment (section 2)

- How the current markets operate
- How rail operates within the supply chain
- Current approaches used by government to intervene in the rail system

Assessing productivity within the rail sector (section 3)

- How to define productivity
- Productivity barriers identified by industry and government through the consultation process
- How this review assesses productivity impediments in the rail sector
- Key impediments to improved productivity

Key productivity impediments (section 4 to 8)

- Impediments and their impact on productivity
- How government intervenes to address impediments

Conclusion (section 9)

- Key findings from the freight rail productivity review
- Next steps

2. CURRENT RAIL ENVIRONMENT

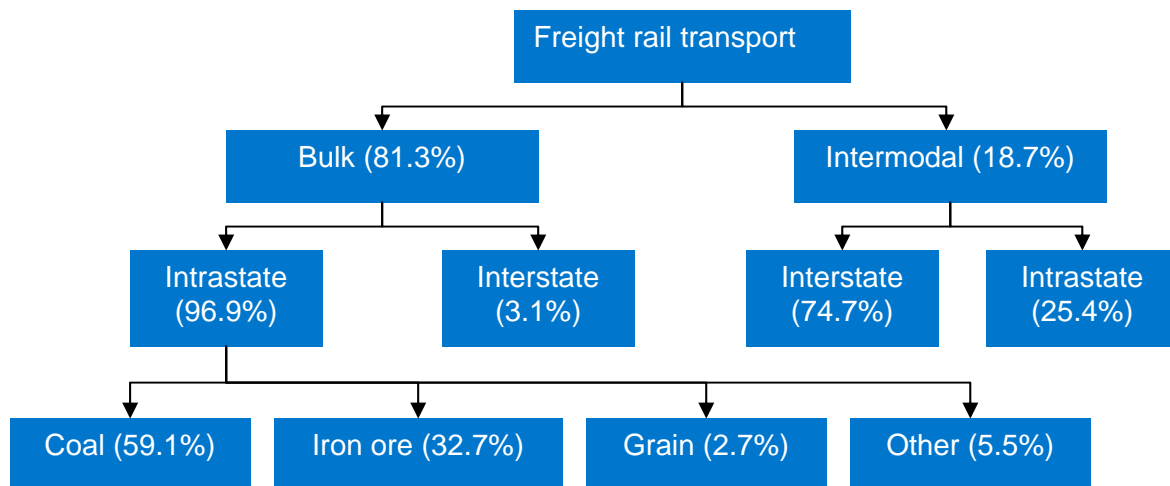
This section will:

- Explain the operation of rail as part of the supply chain
- Identify how the key rail market segments operate
- Outline existing government interventions within the rail industry, including regulation and policy interventions

2.1 Current rail market

In Australia, the existing rail freight market is not homogenous and can be divided into a number of distinct markets. Figure 2 provides an overview of the key distinctions that can be made with respect to the rail transport markets in Australia. The current distribution of the rail freight task indicates that rail movements are predominantly used for two types of movements: intrastate bulk freight (largely coal, iron ore and grain) and long-haul intermodal freight. Rail freight is generally more viable for either bulk freight or on long-distance intermodal freight, as the handling costs represent a lower proportion of the total freight costs. While grain represents a relatively low percentage of total net tonne kilometres, the average tonne of grain is transported around 280km by rail, which is significantly higher than the average kilometres travelled by a tonne of coal (190km).

Figure 1. Freight rail transport markets in Australia – net tonne kilometres



Note: Percentages refer tonnes 2005/06 of tonne-kilometres, includes ancillary services and hire and reward services, Apelbaum, 2007

Most bulk movements are located in Queensland (52.3%), New South Wales (20.7%) and Western Australia (15.3%) (BITRE, 2008a). For intermodal freight, the top three origin and destination pairs in 2006/07 (by total tonnes carried) were Victoria and Western Australia both ways (22.6%); intrastate movements in Queensland (18.1%); and movements between New South Wales and Western Australia both ways (14.0%).

BITRE (2008a) indicates that between 1971-72 and 2005-06 the market share (measured by the percentage of tonnes carried of total land and sea freight) of rail rose in a number of markets including:

- New South Wales to Western Australia from 34% to 53%;
- Victoria to Western Australia from 42% to 68%; and
- Queensland to Western Australia from 12% to 47%.

The four key Australian market segments that rail transport serves are described below.

Coal

In 2005/06, 98.4% of total coal movements were carried on rail. Coal fields are located in Queensland and New South Wales. Queensland Rail owns and manages the existing coal rail infrastructure whereas the New South Wales rail track is leased and managed by the Australian Rail Track Corporation and RailCorp. Above rail haulage services are provided by both Queensland Rail and Pacific National³. Most of the transport infrastructure for coal is dedicated, with the rail link essentially acting as a conveyor belt to the port facilities. However, some port facilities, such as Port of Brisbane and Port Kembla, are not dedicated coal ports and share rail infrastructure with other commodities and passenger services, complicating the operation of the rail leg in these supply chains.

Iron Ore

Australia's major iron ore deposits are located in the Pilbara, in north-western Western Australia. Two private railways exist in the Pilbara region, with iron ore railed from mines to Port Hedland via BHP Billiton and Rio Tinto's rail link, which have been developed and are operated under a joint venture⁴. Hammersley and Robe River mines have also jointly developed the Pilbara Rail, which hauls iron ore to Cape Lambert. These railways employ world class technology and are often cited as an example of the possible gains that could be made on the east coast coal railways and the interstate intermodal lines.

Grain

Grain rail freight volumes are extremely volatile with 14.8 million tonnes of grain transport by rail in 2005/06, while only 9.79 million tonnes were transported by rail in 2006/07 (ARA, 2007). Western Australia is the largest producer of grain, with New South Wales, Victoria, and South Australia also producing large grain crops. There are a number of different track owners and above rail operators involved in grain rail transport across different states. Private above rail operators have generally been unable to achieve commercial returns and below rail infrastructure has deteriorated substantially despite some subsidies being provided by government (Victorian Department of Infrastructure, 2007). This has resulted in rolling stock being moved away from grain haulage into the more profitable coal sector. These problems have been exacerbated by a number of years of drought, which has substantially reduced crop volumes for available for transport and subsequently reduced the attractiveness of investment in rail transport.

Intermodal

Intermodal freight faces strong competition from the road sector on the east coast routes, while sea freight is becoming a significant competitor with intermodal freight traffic for east-west movements. The majority of this freight is carried on the standard gauge

³ Pacific National has recently signed coal haulage contracts in Queensland for a period of 10 years starting in 2010 (Synergies, 2009)

⁴ This railway has recently been the subject of an ongoing access dispute with Fortescue Metals Group seeking access to the rail line.

interstate track which is managed by Australian Rail Track Corporation from the New South Wales/Queensland border to Kalgoorlie. From Kalgoorlie to Perth this line is managed by WestNet rail, while Queensland Rail manages the track in Queensland. Pacific National, SCT Logistics and Queensland Rail provide above rail intermodal services. Geographically, intermodal rail transport is used to a greater extent on east-west movements due to its advantages in terms of travel time and price. On north-south routes the reliability of rail is relatively lower than road.

Interrelationships with passenger rail

Most rail track in urban areas is shared by passenger and freight services. The performance of the passenger sector can therefore influence rail freight efficiency. Passenger trains, generally speaking, have priority over freight trains. Where rail network capacity is constrained, freight operators have reduced access to rail paths and freight rail performance is impacted (e.g. in Sydney there is a curfew on freight trains during peak hours) (Asciano, 2008 and Queensland Rail, 2008a).

In general, these issues are being addressed through the development of dedicated freight rail track (e.g. South Sydney Freight Line in Sydney and Southern Missing Link in Queensland to allow coal to move through Gladstone rather than Brisbane). However, where dedicated infrastructure is not viable, the conflicts between passenger and freight are likely to remain, especially as pricing and planning for these services are not undertaken jointly. This issue is discussed further in section 4.2.

2.2 Rail as part of the supply chain

As the origins and destinations of goods rarely coincide with the start and end points of the railway line, rail transport is one of the links in the supply chain (as shown in Figure 2). Freight customers make transport decisions based on the relative value, cost, travel time, reliability and service quality of different transport modes. Supply chains will then be formed based on the transport services that provide the optimal mix of cost and service characteristics to the freight customer.

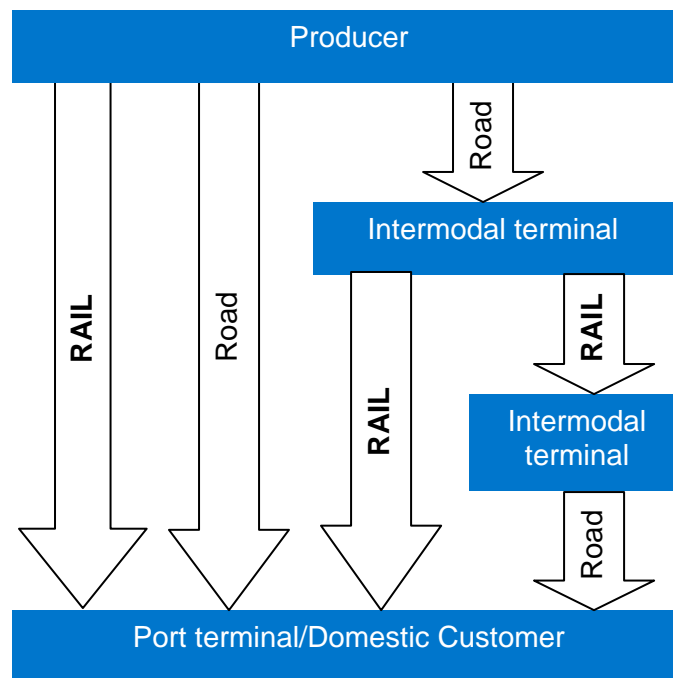
Figure 2. Schematic supply chain examples

Figure 2 highlights that rail transport is part of a supply chain. As a result, productivity of rail transport is closely linked to the productivity of the whole supply chain, particularly the intermodal terminals. The figure also highlights that road and rail transport can be both substitutes and complements. On some routes road and rail transport compete and freight customers will choose between one and the other mode. On other routes, road and rail can be considered complements, as road provides the transport from the rail destination to more dispersed destinations within urban areas.

2.3 Regulation and government policy

2.3.1 Economic regulation

The rail sector is subject to economies of scale and economies of scope. This means, in an unregulated environment where rail faced no competition from other modes, rail businesses could act as vertically integrated natural monopolies and thus be able to charge monopoly rents and restrict new entrants to the market. As a result, governments regulate rail business to improve competition outcomes and ensure track managers cannot charge monopoly rents for rail access. The current regulatory environment and market structure stems from the differing application by state and federal governments of the National Competition Policy Reforms enacted in the mid 1990s (Productivity Commission, 1999).

These reforms were mainly aimed at increasing competition within industries that use monopoly infrastructure and generally involved changing the ownership and structure of rail business and imposing economic regulation. As such, the rail freight transport in Australia industry is characterised by varying degrees of:

- **Vertical integration or separation** – with the exception of Queensland and the private railways in the Pilbara, the track manager and the train operators are vertically separated.
- **Horizontal integration or separation** – there are a number of companies that combine several functions within the rail industry (e.g. Asciano is a train operator,

intermodal terminal operator, stevedore and owns rolling stock). In contrast, there are also specialised firms that only provide one function (e.g. El Zorro only operates trains).

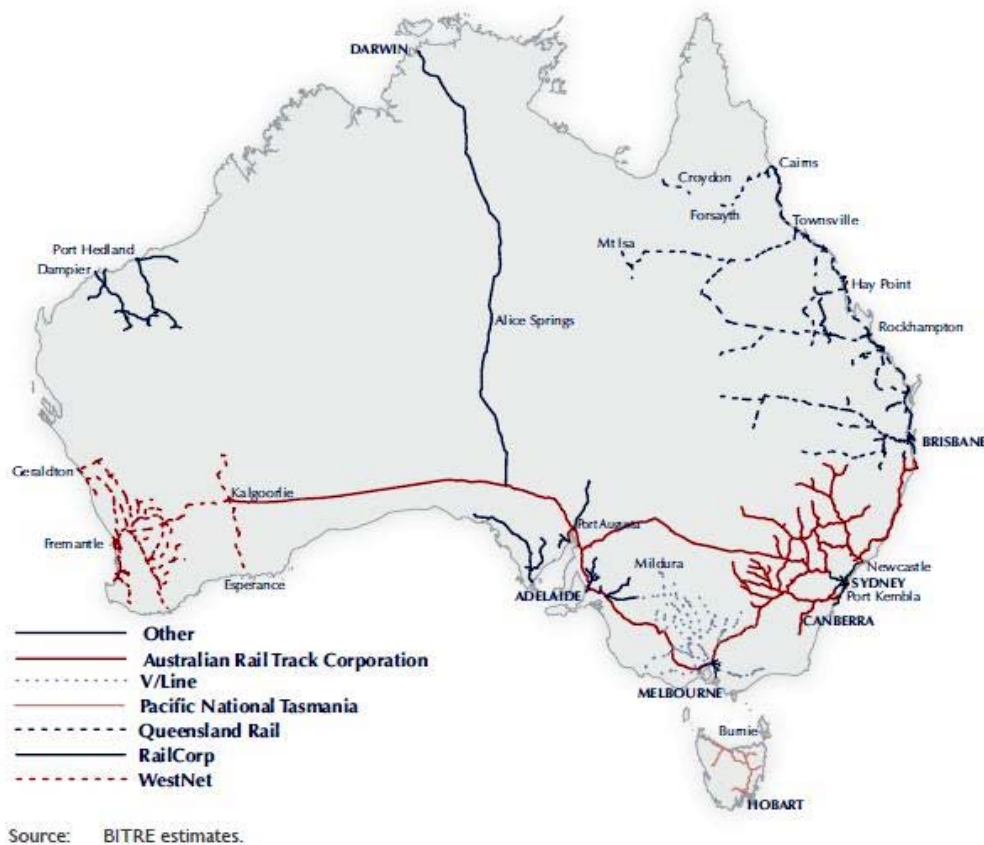
- **Public and private ownership** – above and below rail services are provided by a mixture of private and government owned corporations around Australia, as state and federal governments set up a number of government corporations in the 1990s to provide rail services.

The relationships between different rail industry players are overseen by government, as rail track is considered a natural monopoly. Appendix 5 provides an overview of the regulators in different states and their roles. Table 1 provides an overview of some of the key contractual and regulatory arrangements that govern relationships between different parties involved in rail operations. There is currently no single national economic regulator for rail for all track, with rail access regulation undertaken by different regulators depending on state or track segments.

Table 1. Regulatory and contractual arrangements

Agreement	Parties involved	Characteristics
Lease agreement	Track owner, track lessee	<ul style="list-style-type: none"> • Varying terms (e.g. 60 years for the Australian Rail Track Corporation, 45 years for V/Line) • Determines obligations of the lessee and lessor
Access undertakings	Track manager, economic regulator	<ul style="list-style-type: none"> • Undertaking put forward by the track manager • Includes terms and conditions of access as well as revenue or price floor and ceiling for track access
Port contracts	Stevedores, train operators	<ul style="list-style-type: none"> • Monitoring report by Australian Competition and Consumer Commission on an annual basis • Inquiries into stevedore pricing by state regulators
Access contracts	Intermodal terminal operators, train operators, (economic regulator)	<ul style="list-style-type: none"> • Privately negotiated • Some agreements are subject to regulation • Some terminals are operated by the government

Figure 3 provides an overview of the location and ownership of freight rail tracks in Australia.

Figure 3. Overview of rail tracks and managers across Australia

Source: BITRE, 2008b

In a review of rail industry reform, the 1999 Productivity Commission report titled *Progress in Rail Reform* recommended the following changes to the structure of the industry for different rail market segments (Productivity Commission, 1999):

- interstate network: Entire network to be managed by a single entity. Vertically separated network subject to access regime approved by the Australian Competition and Consumer Commission;
- intrastate low volume network (e.g. grain): Entire network horizontally separated from passenger and other freight operations. Vertically integrated network subject to ‘light handed’ access regime, with possible privatisation of vertically integrated railway operations and track (either as entire network or separate track segments);
- intrastate high volume network (e.g. coal, iron ore): Entire network horizontally separated from passenger and other freight operations. Vertical integration of whole network with franchising of vertically integrated operations using competitive bidding for lowest freight rates. This would involve franchise agreements for either the entire network or separate track segments. These would be re-tendered regularly to promote competition, with track and rolling stock leased to franchisee to promote new entrants and access arrangements incorporated into franchise agreements.

The changes to the rail networks recommended by the Productivity Commission in 1999 have not been implemented as not all of the interstate track is managed by one entity and most intrastate networks are still vertically separated.

2.3.2 Environmental and safety regulation

There are a range of environmental regulations that apply to all industries including the rail sector. These include facility or commercial premise regulations that specify air quality and noise requirements. These regulations are administered by state and local governments.

The NTC is not aware of any standards for air quality, noise or vibration that specifically apply to the operation of rolling stock. Furthermore, there is an example in Victoria where passenger train services are exempt from the environmental requirements in the state's Environment Protection Act. The Cooperative Research Centre (CRC) for Rail Innovation, with the Australasian Railway Association (ARA) have recently completed an audit of all environmental regulation that impacts on rail operations (CRC for Rail Innovation, 2008).

Rail industry participants need to obtain safety accreditation from rail safety regulators to attest that they have the competence and capacity to manage the risks to safety associated with the rail operations for which accreditation is granted. Each state has its own rail safety regulator (for a list refer to Appendix 5). In 2006, NTC developed model rail safety regulation. To date, Victoria, New South Wales and South Australia have implemented the model rail safety legislation. At the time of writing, legislation is before the Queensland Parliament.

2.4 Government rail policy

State and commonwealth governments are heavily involved in the freight rail sector through their roles as policy maker and planner, shareholder, investor and regulator. Passenger transport continues to be heavily funded and directed by state governments. This also impacts on the operations of freight rail in Australia due to the shared freight and passenger infrastructure that exists. These roles and the potential issues that arise from them are discussed in chapters 4 to 8.

3. ASSESSING PRODUCTIVITY WITHIN THE RAIL SECTOR

This section will:

- Define the concept of productivity for the purposes of this review
- Provide an overview of the issues raised by industry and government during the consultation process
- Outline the assessment framework used to investigate productivity impediments in the rail sector
- Identify the key areas impacting on productivity within the rail sector

3.1 What is productivity?

The Productivity Commission defines productivity as:

“...a measure of the rate at which outputs of goods and services are produced per unit of input (labour, capital, raw materials, etc). It is calculated as the ratio of the quantity of outputs produced to some measure of the quantity of inputs used.”
(Productivity Commission, 2008a)

Therefore, productivity is a measure of how well firms or industries use inputs to produce the outputs that provide the most value to the economy. Improving productivity requires moving towards:

- least cost production processes;
- efficient allocation of resources within a firm and across the economy; and
- continual improvement of service levels and development of new products and technologies.

This review therefore takes a broad view of freight rail productivity in the context of the transport market as a whole, and aims to identify:

- how productivity is impeded in the rail industry; and
- why greater productivity improvements are not being achieved.

3.2 Productivity barriers identified through consultation

As part of this review, extensive research and consultation was undertaken, including:

- 21 submissions to NTC issues paper (for a full list refer to Appendix 1)
 - Rail Industry (Pacific National, Queensland Rail, Australian Rail Track Corporation, El Zorro, Australasian Railway Association)
 - Government (NSW Ministry of Transport, Department of Planning and Infrastructure – WA, Independent Transport safety and Reliability Regulator)
 - Other (Rail Tram and Bus Union, Sydney Ports, NSW Farmers Association)

- industry and government workshops
- Targeted consultation and informal discussions with:
 - Government agencies: Australian Competition and Consumer Commission, Productivity Commission
 - Rail customers: Fosters, BlueScope, Australian Paper
 - Rail operators: SCT Logistics, Pacific National, Queensland Rail
 - Rail industry groups: Australasian Railway Association

In addition, the review has been informed by Australian and international literature on rail market operations, investment and regulatory arrangements.

3.2.1 Industry perspectives

Rail Customers

A number of key rail customers have indicated the desire to use more rail for intermodal freight movements on Australia's intra- and interstate rail networks. Customers generally cited environmental concerns and the desire to have a non-road option due to the perceived competition effects of industry consolidation in the road transport sector as the main reasons for their interest in using more rail transport. The creation of a level playing field for both road and rail safety regulation due to the new national fatigue and chain of responsibility laws for road transport has also impacted modal choice. These comments highlight the opportunities available for the rail sector. However, freight customers have generally had difficulties in making rail work for their businesses, with the following productivity concerns identified:

- service, transit times and reliability (particularly for east coast freight movements to and from Sydney); and
- Strong competition from sea transport on east coast to Perth routes.

Freight customers have also highlighted that, at present, rail is generally speaking cheaper relative to road on many line haul routes (especially East-West movements). For rail to increase market share relative to road, rail service performance would have to increase while still maintaining a cost advantage relative to road transport. This is due to the increased transit times resulting from intermodal transfers necessary when using rail transport.

Below rail operators

Below rail operators highlighted the following issues impacting on productivity:

- lack of planning and policy direction from government for rail infrastructure, intermodal terminals and across the supply chain;
- infrastructure deficiencies and bottlenecks;
- outdated technology;
- development and access to intermodal terminals and ports;
- passenger and freight interactions in urban areas; and

- regulatory differences across state borders.

Above rail operators

Above rail operators also raised the issues put forward by below rail operators, demonstrating the interdependency between above and below rail service providers. A number of other issues were also raised including:

- the lack of certainty around future track investments and demand for rail freight movements prevents some efficient investment in rolling stock;
- there is an inability to buy off-the-shelf locomotives due to varying technical and infrastructure standards across Australia which leads to long lead times, higher costs, uncertainty and reduced interoperability;
- the regulatory burden is too high (i.e. environmental, safety and economic); and
- in some cases access to intermodal terminals is seen to be a significant issue.

3.2.2 Government perspectives

Government plays a number of roles within the rail market including policy maker, regulator, planner and shareholder. Given the diversity of these roles and the organisations that provided input to the review a variety of issues were raised by government agencies, including:

- multi-modal and passenger interactions, including multi-modal planning and terminal access
- appropriateness of a national pricing and access framework;
- use of rail to achieve sustainability or transport policy objectives;
- viability of regional rail lines;
- provision of government funding; and
- lack of robust railway data.

3.3 Assessment framework

As shown in section 3.2, a range of issues have been raised that impact on the productivity of the rail industry. It is important to distinguish between problems with the underlying investment and regulatory frameworks and those issues that are symptoms of these frameworks.

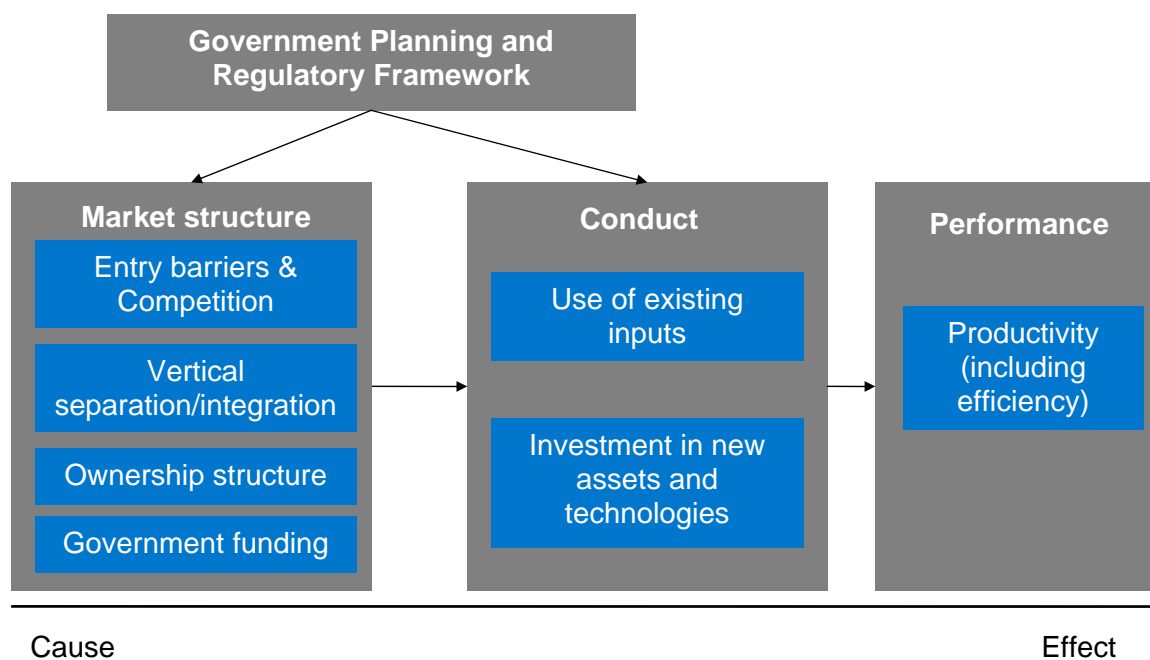
For example, a number of infrastructure bottlenecks have been identified that are reducing the ability of the rail industry to provide reliable services and utilise more productive trains. These infrastructure bottlenecks could be considered as effects or symptoms of the current structure of rail in Australia. They may be caused by a number of underlying factors such as industry lacking the incentives and/or certainty to undertake investment decisions. It is important to address the true causes of rail's current inefficiencies to ensure that the rail industry is able to operate efficiently over the longer term.

In order to identify symptoms and underlying causes of productivity impediments in the rail sector, a structure-conduct-performance framework has been used. Under this

framework, the market and regulatory structures that underpin the rail market influence the behaviour (conduct) of participants within the market. The conduct determines the performance of the industry.

This review evaluates the evidence from existing research and industry consultation to determine how the current structures underpinning the rail industry are influencing the actions of the rail industry and subsequently their performance. Within this framework, the review identifies whether there are market failures that are currently not addressed by government; and/or that are caused by inefficient government intervention. This assessment framework is illustrated in Figure 4.

Figure 4. Rail issues framework



(Based on Papatheodorou, 2006)

3.4 Key productivity impediments

The following five key areas where freight rail productivity impediments exist have been identified:

1. Policy, planning and investment
2. Economic regulation and market structure
3. Environmental, safety and technical regulation and standards
4. Human capital
5. Productivity measurement

A detailed discussion of each of the productivity impediments is provided in the following sections.

4. POLICY, PLANNING AND INVESTMENT

This section will provide an analysis of the key issues associated with policy, planning and investment within the rail industry. These issues include:

- Government objectives are not always aligned or prioritised
- Further coordination of planning and investment by industry and government may be necessary
- Government funding is not always provided under a clear and transparent framework

Recommendations to address these issues have also been outlined in this section.

Ensuring efficient investment in necessary rail infrastructure, assets and technologies is necessary to endure improvements in freight rail productivity. There are a number of barriers to this occurring, given the current planning and investment framework supporting the rail industry. These barriers are discussed in the following section.

4.1 Issue a: government objectives

Transport policy objectives are currently set at state, federal, Australian Transport Council and government owned corporation levels. These bodies also undertake a variety of transport policy and planning roles. Policy objectives aim to guide the development of transport policy and planning and provide direction as to the actions of government owned corporations. However, given the multitude of overlapping objectives, some confusion as to the actual outcomes sought by governments exists. This issue is heightened by the lack of clarity regarding the responsibilities for transport policy development and planning between the various levels of government and industry bodies. Objectives of the various levels of government and government owned corporations and their planning roles are described in Appendix 6.

At a high level, policy objectives across government generally display similar themes. For example, most governments develop objectives relating to the efficiency, environmental performance and social outcomes of Australia's transport network (see Appendix 6). However, at a practical level, objectives across governments can be interpreted and prioritised to achieve very different outcomes. This makes understanding how objectives across different levels of government fit together difficult as there is no clear framework for coordinating and prioritising objectives and the roles of the various institutions that set them. As a result, a variety of government bodies may be working towards achieving distinct objectives, creating uncertainty and making effective planning and investment more difficult to achieve. This in turn leads to further uncertainty regarding the future involvement from government, which reduces efficient investment outcomes.

For example, rail policy in Victoria must be developed to fulfil Victorian transport policy objectives. This also needs to align with AusLink policy objectives where strategic national infrastructure is involved, and the objectives of government infrastructure managers for transport policy that relates to government owned ports or rail track. In addition, all transport policy development should be undertaken in line with the Australian Transport Council objectives.

This illustrates the complex interactions between levels of government transport objectives. As a result, the actual outcomes being sought by all participants is unclear and the funding and planning obligations for each party may be ambiguous. This impacts on the ability of governments to undertake investment decisions with a clear purpose, which can lead to a planning and investment vacuum or inefficient investment decisions.

The NSW Farmers' Association highlights the impact of overlapping objectives on Australia's rail network and recommends a national approach for coordination:

“Differences in the various states’ application of transport/infrastructure policy have led to significant inefficiencies in the interstate movement of commodities. This is immediately seen in the differences in gauge sizes, however, it also affects quality of lines and general support maintenance, which results in considerable inefficiencies for interstate rail movement. [...] Government should provide policy certainty and strategic direction to enable confident private sector investment.” (NSW Farmers' Association, 2008)

The lack of clarity and prioritisation can also have significant impacts on the operation of government owned corporations. This is particularly important given the large role played by government corporations in all rail markets within Australia. In 2006, the Productivity Commission noted that:

“governments still subject their rail operators to multiple, and often conflicting, objectives, including some relating to social welfare, without guidance on prioritisation.” (Productivity Commission, 2006, pg 332)

This ambiguity is also illustrated by the objectives contained within the Australian Rail Track Corporation charter. The two potentially conflicting objectives in this charter relate to increasing capacity utilisation and achieving a sustainable shareholder return on capital investments (ARTC, 2008). Likewise, the Queensland Rail corporate strategy requires the business to ensure that *“Our shareholders value QR as a sound commercial investment”* and that *“Customers are able to achieve their sustainability outcomes (social, safety and environment) through the use of QR’s services and products.”* (Queensland Rail, 2008b).

The issue is of medium significance due to its impact on rail planning and investment. A clear framework for interpreting the objectives and responsibilities of governments and government owned corporations in planning and investing for rail is considered the first step towards good planning and efficient investment.

4.2 Issue b: coordination of planning

Industry players have identified the lack of coordinated long term planning for rail as one of the key productivity impediments. A poor planning and investment framework can lead to insufficient or uncoordinated transport and land use planning. This can lead to inefficient investment decisions due to inadequate or incomplete information e.g. poorly located urban intermodal terminals being developed unilaterally due to land use and transport planning not being sufficiently integrated.

Coordination of planning and investment is particularly important within the rail industry due to the number of interfaces and characteristics that exist in the sector. These include:

- long term planning;
- passenger and freight interactions;
- land use and transport planning impacts;
- supply chain interfaces; and
- multi-modal impacts (i.e. road, sea).

Significant planning is already undertaken across these areas, with many governments coordinating planning and investment across agencies or levels of government (see Appendix 6 for an overview of planning roles across government). For example, the Victorian government has prepared an integrated freight strategy. Similarly, the AusLink policy initiated a move away from mode-specific planning towards a multi-modal approach. A number of key infrastructure projects are also planned and funded jointly across government and government corporations. For example, the current Dynon Port Rail Link was funded jointly by the Commonwealth and Victorian governments and the Port of Melbourne Corporation. This project is being undertaken in conjunction with an upgrade of rail track to the port, which is being funded by the Australian Rail Track Corporation and the Commonwealth government through AusLink.

However, while coordinated planning and funding of rail infrastructure occurs, at present there is no long term framework for facilitating planning and investment across all the various interfaces and levels of government. This sometimes results in an ad hoc approach to coordination of planning across governments, which can result in gaps in planning coordination across the network. This is further impeded by a lack of quality data on the performance of freight rail. The impact of poor coordination across the necessary interfaces is discussed in the following:

- **Long-term planning**

Long-term planning for rail capacity extensions is being undertaken in some market segments. For example, the Australian Rail Track Corporation provides detailed long-term planning and capacity information for the interstate network. In contrast, planning for the regional grain networks has been undertaken on a short term ad hoc basis due to factors including the drought, short-term infrastructure deficiencies and ownership structure. For example the recent \$30 million Eyre Peninsula rail support package in South Australia in 2006 and the New South Wales government \$45 million grain rescue package to Pacific National in 2008 were both undertaken in response to a short term threat of grain service cessation. Ideally, planning for rail networks should adopt a long-term view.

- **Passenger and freight rail**

Passenger and freight rail share infrastructure in many areas. Increasing demand for urban passenger services will further reduce available capacity for freight traffic. For example, the RailCorp owned track to Port Kembla faces increasing demand from both passenger and freight services. However, at present passenger services take precedence above freight rail in terms of scheduling and capacity allocation, with the number of passenger services usually determined by a state transport department and passenger rail service provider. This makes it difficult for

supply chain users, as well as the track owner, to adequately plan for investment in above and below rail assets as the number of train paths available to freight going forward may be unclear. Appropriate information flows between freight and passenger services and coordinated planning across segments is therefore needed to ensure both passenger and freight services are not impeded.

- **Land use and transport planning**

Further integration of land use and transport planning is required to minimise the external impacts of future freight movements and ensure availability of land for future capacity extensions. This is particularly important for urban intermodal terminals (see section 5.2).

The Sydney Ports Corporation highlights the complexity of the coordination task for transport planning in their submission:

“An integrated approach to land use planning and land banking is necessary. At present integration is limited and occurs in an ad-hoc fashion. Pursuing a more integrated approach will require the involvement not only of transport and planning agencies through corridor preservation and minimising sensitive land uses near the port and associated infrastructure, but also the support of Treasury to ensure that sufficient funding is made available for this work to be undertaken on an ongoing basis.” (Sydney Ports Corporation, 2008)

Progress has already been made through the endorsement by Transport and Planning Ministers of the *Integrated Land Use and Transport Planning Charter* in 2003 and subsequent *Intergovernmental Agreement Establishing Principles Guiding Intergovernmental Relations on Local Government Matters* in April 2006.

- **Supply chain interfaces**

Rail acts as one component of a supply chain. Therefore, a lack of coordination along the supply chain can cause inefficiencies as the capacity of the supply chain is reduced to the capacity of the smallest link. For example, a lack of certainty regarding the final port capacity in the Goonyella coal supply chain led to insufficient investment in above rail capacity at the time (O’Donnell, 2007). It was observed that:

“A coordinated approach to master planning of infrastructure is essential. The situation where investments are being made without concurrent investment in other parts of the supply chain [...] should never be allowed to happen again.” (O’Donnell, 2007).

Coordination along the supply chain is primarily a matter for industry. A number of industry-led coordination models have begun to be developed through the introduction of logistics teams (e.g. Hunter Valley Coal Chain Logistics Team and Port Botany Rail Logistics Team). Industry has also taken a coordinated planning approach with the recent terminal expansion at Enfield in Sydney, which is being developed in line with improved rail infrastructure to the terminal. As such, there is likely to be a limited role for government in improving coordination across industry.

However, in some circumstances, industry experiences difficulties in developing a strong coordination model to effectively address supply chain problems. This can be due to problems with ensuring information flows along the chain or as a result of

companies seeking to gain a competitive advantage (gaming) within the supply chain. There is also concern from some participants in the transport industry that greater coordination across the supply chain may result in Australian Competition and Consumer Commission intervention (IPART, 2008 and Booz & Co, 2008). Governments may therefore have a role in effectively communicating to industry their requirements for undertaking greater coordination, so that the risk of Australian Competition and Consumer Commission intervention is reduced. Equally, where industry is unable to develop an effective solution in the case of supply chain failure, there may be a role for government to intervene and arbitrate an effective solution.

Where supply chain failure exists, governments should intervene in a nationally consistent manner to ensure that cross-border supply chains are not constrained. However, governments' role should primarily be aimed at facilitating an industry-led solution. For example, intermodal terminals and ports face different planning and regulatory environments across states. Where differing requirements are placed on these assets within the same supply chain, this may impede the productivity of rail users due to the differing regulatory frameworks that impact upon the investment in and use of terminal facilities.

- **Multi-modal impacts**

More coordinated planning across transport modes can reduce distortions and ensure transport users are able to make decisions based on the most efficient transport mode. A number of market distortions exist between road and rail. For example, large volumes of grain once carried by rail are moving to road due to poor quality track and the lower cost of road transport (Sd+D, 2008). This is causing greater wear on rural roads and shifting costs from rail track managers to local road providers (Victorian Department of Infrastructure, 2007).

Undertaking planning and investment decisions across modes can reduce this disjunct by considering the full economic and social costs of each modal choice and allowing investment to occur where the most benefits can be gained. This is necessary where distortions exist across modes such as in the case of regional grain traffic. This has begun to occur in a number of areas, for example, the Eyre Peninsula grain package and the Grain Infrastructure Group in Western Australia providing funding for regional road and rail infrastructure to improve the function of the grain network as a whole. AusLink planning decisions also take into account road and rail impacts. Governments should therefore continue to build on this multi-modal approach to planning and investment.

As such, there may be benefits from further coordination across a range of areas, which would require a more structured long-term approach to coordination than the current ad hoc approach. However, developing an adequate framework for coordinating across government bodies is complex due to the multiple levels of government involved in transport and infrastructure planning. A more holistic long-term national approach may help to overcome these impediments and improve information flows across the various interfaces discussed above. Information should also be provided to industry to allow industry to improve coordination along the supply chain, where there is a commercial benefit for the industry in doing so. However, government should not intervene to improve industry coordination except where industry-led coordination models cannot adequately overcome supply chain failure.

This issue is of medium significance as it has a direct impact on investment and therefore productivity. During the consultation for this review, process the lack of an integrated long-term transport plan was the most prominent productivity impediment identified.

4.3 Issue c: government funding

A lack of transparency and consistency can create a number of impediments to productivity. Firstly, extensive subsidies provided to the rail industry are likely to have implications for competitive neutrality and may create ‘gaming’ incentives for rail businesses (Productivity Commission, 2006, p.157). Rail businesses may therefore be encouraged to seek government contributions to fund infrastructure projects rather than risking their own capital. This reduces incentives to improve efficiency and reduce costs. Where funding is provided by government for infrastructure projects, the risk to businesses is reduced. This may lead to inadequate assessment of the costs and benefits of a project, increasing the likelihood of inefficient investment (i.e. over or under investment, poor investment choices).

Governments currently provide significant funding to the rail industry at both a state and federal level. For example, in its report on performance monitoring of Government Trading Enterprises in 2004-05 to 2006-07, the Productivity Commission found that:

“Of the six monitored GTEs, five earned less than the risk-free rate of return. Three rail GTEs received community service obligation (CSO) funding totaling \$2.6 billion. CSO payments amounted to 30.5 per cent of sector income.” (Productivity Commission, 2008b)

Despite the significant revenues provided to the rail industry, these are generally provided on an ad hoc basis rather than through a consistent or transparent framework. This is especially pervasive in regional rail services where rail track is unable to operate commercially and relies on government assistance. For example, the following significant one-off payments were made to regional rail services across Australia, to ensure continued provision of services over the short to medium term:

- In 2005, a \$30 million rescue package was provided was provided to the Eyre Peninsula grain network (\$17 million government funding), (Victorian Department of Infrastructure, 2008).
- The Victorian government has provided numerous funding support packages to regional freight lines such as \$73 million upgrade of the Mildura freight lines, \$43 million for five regional freight lines and \$20 million freight support package (Victorian Minister of Transport Media Release, May 2008).
- In mid 2008, the New South Wales Government provided \$45 million to ensure grain services could be continued. This consisted of additional funding of \$30 million for the unrestricted network from 2008-09, which is on top of an additional \$15 million that was announced in 2006 for the grain rail network (this additional funding ceases in 2009) (Ministry of Transport, 2008).
- In Western Australia, the Grain Infrastructure Group have recommended a \$400 million grain rescue package be provided for the Western Australian Grain Freight Network through joint federal, state and industry funding. This is currently being reviewed by the Western Australian government. The Commonwealth has agreed to provide \$135 million to the package as part of the Nation Building project subject to the outcomes of the review (Department of Planning and Infrastructure – WA, 2008).

- In 2006/07, the Commonwealth government committed \$78 million over 10 years to the Tasmanian government to upgrade the rail track. The Tasmanian government reclaimed ownership of the track from Pacific National. Pacific National have since announced plans to sell the Tasmanian above rail business, however as yet no buyer has been found (Department of Infrastructure, Energy and Resources website, January 2009).

These payments were all made to ensure continuation of service provision over the short term, with additional funding likely to be necessary once the funds provided have been exhausted. Despite this, these funds have not been provided as part of a long-term plan for the sector or as part of a clear community service obligation.

Additionally, funding decisions that are not transparent may be inconsistent, as decisions may be made on political rather than objective grounds. For example, without a framework for assessing the size and grounds for community service obligations, it is difficult to ensure that payments are distributed in a consistent manner. This can be seen from the differing payments to the grains sector outlined above. Queensland is currently the only state that has explicit contracts⁵ for community service obligation payments for its passenger service and network maintenance requirements⁶. These payments are primarily directed at providing passenger services, although there are some flow on benefits to freight traffic through the obligations to maintain the network.

The rationale for government funding of rail is also sometimes unclear, and where the rationale for funding is provided, the outcomes of funding decisions are not monitored. For example, under AusLink, the Commonwealth provided \$975.3 million in funding to the Australian Rail Track Corporation. Of this amount, \$155.3 million was provided to fund eight specific projects, and the remainder of the grant was not linked to any specific projects.

Government funding for rail infrastructure should be provided under a clear and transparent framework, with funding only provided where projects cannot be sourced commercially. For example, in the case of Australian Rail Track Corporation managed infrastructure:

- The Hunter Valley coal network and the east-west interstate track are commercially viable, and therefore do not provide a strong case for direct government funding. However, government could provide assistance to underwrite borrowings where necessary.
- The north-south interstate track currently does not attract a commercially viable market share of freight, with above rail operators struggling to make these routes profitable (Productivity Commission, 2006). Government may therefore have role in providing subsidies to achieve transport objectives. However, these should be provided under a clear framework. Clarity should also be provided as to whether

⁵ The payments received by Queensland Rail are tied to explicit service measures which are audited against actual performance to determine whether payment is warranted. Therefore the Queensland Government essentially uses the community service obligation contracts as a means to purchase socially desirable services that would not be provided by the market.

⁶ Other states provide implicit community service obligation payments by means of subsidies for public transport. These payments are either covered by franchise agreements (in Victoria) or allocated through state budgets.

infrastructure upgrades provided from government subsidies are included in the asset base for regulatory purposes.

The lack of clear and transparent objectives for these grants can reduce the efficiency of investment decisions made by government owned corporations. The lack of public framework surrounding these decisions also creates uncertainty for government owned corporations and industry as to the availability of funds in the future.

Consideration should also be given to the appropriate recipients of government funding. Where funding is being provided to ensure continued rail services, governments should consider directly subsidising rail operators. Governments should also assess whether sufficient demand for services exists to keep rail lines operating and that rail providers will be willing to provide services to meet demand given the expected access charges.

This issue is of high significance as it deals with one of the fundamental components of the rail market structure. Unless government financing of rail infrastructure is provided as part of a consistent framework, government owned corporations will not act like commercial entities and all rail market participants will face gaming incentives. Similarly, there is a high risk that some investment is inefficient and no ongoing support is provided.

4.4 Recommendations

NTC should work with state and commonwealth governments in developing an improved national framework for rail planning, and investing in rail transport across Australia. This will build on work already done at a national level such as the National Transport Policy Framework agreed to by ATC and the AusLink Corridor strategies as well as transport planning undertaken at a state level.

This would be carried out at a national level where benefits can be gained from taking a national focus. However, this process will aim to build on rather than replace existing planning work undertaken by the states.

(a) Coordinated and prioritised transport objectives across all levels of government

A coordinated framework for prioritising and implementing transport policy objectives should be developed at the national level. This will ensure government transport objectives are clear and reduce government overlaps in undertaking transport policy planning.

(b) An improved long-term national rail, port and road planning framework to undertake coordinated planning and investment across governments, rail interfaces and other distortions

Given that some aspects of the transport task require a national focus and there are overlapping policy and planning roles, a long-term national rail port and road framework for ensuring coordinated planning and investment needs to be established. This framework should be developed to apply where a national focus is needed to bring together the planning and policy development carried out at a state level. This framework should address planning issues across governments as well as addressing the various rail interfaces such as passenger conflicts, land use planning and supply chain interactions. A comprehensive framework should also take into account existing distortions within the transport market and social objectives.

Development of a national rail plan should take a long-term focus due to the necessary investment in long-term capital assets, and to reduce the risk of legacy impacts in the future⁷. This framework should aim to bring together and build on the existing work undertaken at a state and federal level.

(c) Identify existing strategic intermodal terminals and ensure adequate planning and land banking is undertaken to meet future terminal needs

Rail requires adequate access to strategic terminal infrastructure. A long-term national planning framework should therefore identify where key strategic terminals exist and where a lack of strategic terminals may be an impediment to supply chain productivity in the future. This should be conducted in conjunction with the development of an appropriate and nationally consistent model for terminal access, to further ensure that terminal availability does not constrain rail competition or productivity (see section 5.6).

(d) Industry should lead coordination of planning along the supply chain with appropriate support from government

Industry should be primarily responsible for coordinating planning along the supply chain. However, government can support this process through provision of information and as an arbitrator, should industry be unable to coordinate effectively where significant supply chain failure exists.

Government should provide certainty to industry regarding the coordination requirement on industry necessary to reduce impacts on competition and the risk of Australian Competition and Consumer Commission intervention. Where industry has chosen to collaborate (e.g. Port Botany, Hunter Valley), and effective coordination models have not been able to be sustained by industry, government may have a role in facilitating coordination. For example, as a last resort, where significant supply chain failure exists, government should play a role in arbitrating disputes, and where appropriate, impose a solution to improve supply chain coordination. This should only occur where industry participants are unable to reach a workable solution.

Government owned port and rail track infrastructure providers should also be encouraged to work more closely together when undertaking investment.

(e) Establish a consistent framework for assessing and providing government funding to private and publicly owned rail businesses, and improved monitoring of rail businesses receiving government funding

Government payments to rail businesses should be made under a consistent and transparent national framework. This framework should set out the requirements and assessment methods for providing government funding, and the reciprocal obligations on rail businesses receiving government funding. This will help to ensure that the economic objectives underpinning the funding allocations are achieved. This framework would need to be aligned with the national transport planning process to ensure that distortions across modes are adequately accounted for as part of funding decisions.

⁷ Previous investment decisions in the rail network have created legacy effects, which impact on the future development of rail. This is evidenced by the rolling stock adjustments needed to accommodate 150 year old track infrastructure.

As a minimum, government funding should be subject to the following:

- Government funding should be provided only where there is clear rationale for the payment to be made (e.g. to address market failures or distortions or to fulfil specific social or transport objectives). Where funding is provided to address a market failure or distortion, this should occur only where it is more cost effective than addressing the market distortion directly or as a short-term bridging measure.
- Additionally, governments should continue to closely monitor outcomes where funding is provided to rail businesses, including government owned and private rail operators. Provision of funding should be subject to rigorous and transparent reporting requirements, to ensure that the mutual obligations of both government and industry are recognised. For example, funding could be tied to the achievement of specific performance indicators for government owned corporations or private rail businesses. Performance against these indicators should also be made publicly available and be in addition to the existing monitoring requirements imposed on government corporations.

Governments also should ensure funding is provided in the most efficient means. This should include an assessment of the appropriate recipient of government funding (i.e. above or below rail operators) and whether the funding should be tied to specific projects.

5. ECONOMIC REGULATION AND MARKET STRUCTURE

This section provides an analysis of the key issues associated with the economic regulation that applies to the industry and the current market structure of rail. These issues include:

- Vertical separation of low volume rail lines is not necessarily optimal
- Economic regulation of rail is not entirely consistent across different states and networks
- Access to intermodal terminals is not provided consistently and may impact competition
- Rail track access is not always priced efficiently due to regulatory and informational restrictions and the impact of other modes and externalities

Recommendations to address these concerns have also been outlined in this section.

The regulatory framework includes the following components:

- market structure – extent of vertical and horizontal integration or separation; and
- access regulation – the way rail track managers provide access to above rail operators.

Under an ideal market structure and access regulation, economic efficiency and competition would be optimised while limiting market power. Both the optimal market structure and the optimal access regulation depend on a number of factors, particularly the expected level of monopoly power the rail track manager is able to exert and the level of above rail competition likely to be present. The assessment of market structure and access regulation of the current rail market has identified the following four issues that have a negative impact on productivity:

- market structure
 - vertical separation of low volume rail lines is not optimal;
- access regulation
 - economic regulation of rail is inconsistent across different states and networks
 - access to intermodal terminals is not provided consistently and may impact competition
 - rail track access is not always priced efficiently due to regulatory and informational restrictions and the impact of other modes and externalities

5.1 Issue a: vertical separation of low volume rail lines is not optimal

As a result of rail industry reforms in the 1990s most rail in Australia operates under vertical separation. The Productivity Commission describes the rationale for vertical separation as follows:

“The economic efficiency of railways is enhanced by introducing competition through vertical separation when:

- *rail networks possess natural monopoly characteristics such as economies of scale and have effective market power (the network can earn monopoly profit);*
- *train operators are able to compete on a commercially sustainable basis; and*
- *track infrastructure and train operations are relatively independent so that the costs of separation are small in relation to the gains from competition and efficient economic regulation.”* (Productivity Commission, 1999)

When these conditions are fulfilled, the benefits of vertical separation are likely to outweigh the costs. This has been the case on the east-west segment of the vertically separated interstate track, where three operators now provide services, and freight costs have reduced (Productivity Commission, 1999).

However, vertical separation also imposes costs including transaction costs, higher maintenance costs, information problems and additional operational costs (Productivity Commission, 1999). Low volume lines that are unable to realise the competition benefits from separation may therefore be made worse off under this market structure. An example of this is the intrastate grain networks in Western Australia, New South Wales and Victoria which are vertically separated and therefore may not fulfil the conditions set out above.

Rail transport of grain on branch lines is facing strong competition from road (Victorian Department of Infrastructure, 2007). As rail track prices are becoming limited by competition from road transport, rail track owners are unable to recover costs. This problem is heightened by the low demand for grain services on the regional branch lines. As such, the prospect of above rail competition on these lines is limited given some lines have trouble securing above rail services from one business. This lessens concerns regarding monopoly owners charging monopoly rents on these regional grain lines.

Due to the low (and varied) volumes of grain for transport over the previous few years, there is limited scope for competition for above rail grain haulage as it is generally not commercially viable (Victorian Department of Infrastructure, 2007). Sd+D (2008) notes that:

- In Western Australia, the extreme variation in annual task plus poor commercial returns led to a situation where the above rail operator was diverting train resources to the growing minerals sector at the expense of grain traffic.
- In the absence of any form of operational support by government in South Australia, rail services will continue to contract, leaving road transport to take an increased share of the export task.
- In Victoria, competition in the rail freight industry for grain is not healthy.
- In New South Wales, Asciano has wound back its commitment to the grain sector after many years of losses.

- In Queensland, Queensland Rail, a state-owned corporation, is the provider of both track and above rail operations. While an open access regime is in place, there are no competitors for the grain sector.

The poor performance of grain rail freight has been further impacted by the disconnect between above and below rail providers, as the decisions made on the maintenance of track infrastructure cannot be separated from decisions on above rail operations. For example, a track owner who decides to upgrade a section of track can only assume that there will be an above rail operator who will use this section of track. Sd+D (2008) observed:

“Even if a branch-line is the subject of major maintenance event, there is no guarantee of future use, or of competitive rail pricing.”

It is therefore essential to integrate the decisions made on track maintenance with the economic viability of the above rail market for grain transport. This could be achieved through vertical integration. Reintegrating marginal lines will also bring additional benefits due to the reduction in transaction costs between above and below rail services.

Overall, given the lack of monopoly power of track managers, the absence of commercially viable above rail competition and the need to integrate rail track and above rail investment decisions, the continued vertical separation of grain networks is an impediment to productivity. As noted by BTRE:

“Separation brings with it greater ongoing transaction and coordination costs than under integration. [...] Thus, if the likely on-track competition will be modest (due to small freight movements), the relatively low resulting benefits may not warrant the costs of vertical separation.” (BTRE, 2003)

Similarly, the Productivity Commission recommended:

“Given the mixed success of vertical separation in encouraging above-rail competition, whether allowing vertical reintegration of particular rail lines or networks would promote their commercial viability and deliver net benefits should be the subject of detailed independent examination on a case-by-case basis, commissioned by relevant governments.” (Productivity Commission, 2006)

Vertically integrated grain lines may also benefit from privatisation. However, for this to occur, appropriate ownership contracts would need to be negotiated to ensure the full benefits of vertical separation can be achieved and the objectives of the private rail business are consistent with the desired transport objectives of government. Where governments choose to maintain ownership of rail track, franchising grain branch lines may also improve productivity and create competition for franchise operations. Equally, for the separated track servicing the mineral and intermodal markets, appropriate contractual and regulatory arrangements need to be established to ensure the interface between above and below rail is managed at least cost.

The issue is of medium significance for the intrastate grain networks. While it can be argued that vertical reintegration is only one of the mechanisms to ensure a sustainable grain rail network, it is important that potential reintegration is considered as part of the solution to sustainable grain networks.

5.2 Issue b: economic regulation of rail is inconsistent across different states and networks

Access regimes determine the terms and conditions for gaining access to rail track, the revenue cap and pricing structure for train paths and the relationship between above and below rail providers. Currently, inconsistencies between access regimes arise:

- along the interstate network;
- between intrastate networks; and
- between intrastate and interstate networks

In addition, the underlying rationale for the regulation may vary as most intrastate rail is regulated through compulsory state access regimes, while the Australian Rail Track Corporation submits a voluntary undertaking under Section IIIA of the Trade Practices Act.

Currently, there are three different access regimes on the interstate track that are managed by three regulators (see Appendix 5 for an overview of regulators). The key inconsistencies with respect to access and pricing regulation in different states include pricing principles, depreciation methods, asset base valuations and attribution of common costs (BITRE, 2006, Productivity Commission, 2006 and DPI WA, 2008). Inconsistent economic regulation of rail increases the cost of access for above rail operators as rail providers operating in multiple states have to negotiate a separate agreement for each network⁸.

For example, Asciano points out that a national rail operator has to deal with six access regulators (Asciano, 2008). To address this issue, the Competition and Infrastructure Reform Agreement (COAG, 2006a) was aimed at adopting a simpler and consistent national system of access regulation, which would apply to the nationally significant rail infrastructure (i.e. the interstate network). This was modelled on the Australian Rail Track Corporation access undertaking (COAG, 2007a). However, implementation of the Competition and Infrastructure Reform Agreement has stalled (COAG, 2008).

Additionally, the benefits of moving to a more consistent approach to economic regulation of rail are unclear and may not outweigh the costs of implementing a national system. This includes whether adopting nationally consistent regulation administered by a single economic regulator would provide net benefits.

There is currently limited evidence of significant negative impacts from inconsistent economic regulation competition, as there are a number of above rail operators competing on the east-west segment of the interstate track. The Department of Planning and Infrastructure in Western Australia points out that:

“Indications from industry to date are that no operator is being prevented from gaining access to the interstate track under the current arrangements [...]. Information indications from industry to date are that there is no appetite for a National Rail Access Regime as players can see little value in the proposal.” (DPI WA, 2008)

⁸ Note that there is an agreement in place for the Australian Rail Track Corporation to provide access to the Western Australian part of the network but most above rail operators negotiate directly with WestNet Rail.

Similarly, through consultation for this review, above rail operators have indicated that nationally consistent economic regulation is not viewed as a major impediment to productivity.

However, inconsistent economic regulation among intrastate lines and between inter- and intrastate lines may lead to higher access costs for above rail operators. Even though only a small proportion of total rail freight moves between different networks, most above rail operators provide services in multiple states. El Zorro, a relatively new entrant comments in its submission:

“The various track managers across the country have similar, but certainly different, access agreement terms and conditions, protocols and rules that need to be addressed. Eliminating this nuisance for above-rail operators would be a boon to productivity” (El Zorro, 2008).

While consistent economic regulation is viewed as an impediment to rail productivity, the relative costs and benefits of implementing a nationally consistent regulation need to be established.

This issue is currently of low to medium significance. While inconsistent access regimes can be identified as one of the issues that constrain freight rail productivity, its impacts are not as significant as planning and investment issues. This is consistent with views expressed during industry consultation. There are also a number of factors which would increase the costs of implementing such a reform, such as the existing long-term contracts in place and the different underlying basis for requiring access regulation.

5.3 Issue c: competition implications of intermodal terminal access

With the exception of the Pilbara⁹, all rail tracks are subject to open access regimes. In contrast, access to intermodal terminals is provided on the basis of a number of co-existing models. Most terminals are privately owned, with some operating as common user or open access terminals while others restrict access to owners. Governments also own or regulate access to a number of intermodal terminals such as South Dynon in Victoria.

Access to some intermodal terminals can be important in achieving productivity gains, as they are a key component of the intermodal supply chain. Private terminal ownership can constrain rail productivity by restricting competition in the above rail intermodal market. Sydney Ports commented in their submission:

“A key barrier to rail access to intermodal hubs is the existence of commercial arrangements that make it prohibitive for multiple users to access the terminal. This is placing greater competitive pressures on industry in accessing existing facilities within metropolitan Sydney. The intermodal terminal being developed by Sydney Ports at Enfield will provide multi user rail access to the site. It is important that government frameworks support this approach to encourage the use of rail for the movement of freight within metropolitan areas.” (Sydney Ports Corporation, 2008).

⁹ The National Competition Council (NCC) declared the Pilbara as nationally significant infrastructure in June 2008 with subsequent endorsement by the Federal Government, requiring the owners to provide access to third party entrants. BHP and Rio Tinto are currently appealing the decision. The Western Australian government has also been developing an access regime for iron ore haulage services to third parties in the Pilbara, which is intended to expedite the access disputes currently being sought under Part IIIA of the Trade Practices Act and provide a safety net for access seekers to the railway.

Terminal owners that restrict access for commercial advantage can lead to lower competition in the rail services market, which can have a negative impact on productivity through increased freight prices for customers and less innovation and service improvements. While this suggests there is abuse of market power, the implicit view adopted by the National Competition Council is that ownership of terminals does not lead to significant market power as intermodal terminals can be duplicated¹⁰.

However, in 2006 Meyrick and Arup estimated future demand and capacity of intermodal terminals and concluded that there will be a significant shortfall in terminal capacity in Melbourne, Sydney and Brisbane by 2020. They further concluded that duplication of urban terminal infrastructure may not be desirable as it can create inefficiencies. Additionally, there are increasing difficulties associated with development of intermodal terminals, including environmental restrictions, availability of appropriately zoned land and community concerns regarding freight transport infrastructure. While governments have generally realised the need for proactive planning for intermodal terminals, the need for open access regulation is less well recognised.

As a result, there is a case for strategically located terminals in urban areas to be open access terminals (Meyrick and Arup, 2006). Similarly, Booz and Co (2008) recommend that large common-user intermodal terminals be developed in urban freight systems to create economies of scale and scope, and facilitate greater line haul competition. Some governments have already recognised the problem of access to urban intermodal terminals. For example, the Victorian Freight Futures strategy includes:

“Direction 18: Establish governance arrangements for the Metropolitan Freight Terminals Network” (Victorian Department of Transport, 2008).

This issue is of high significance considering the strong projected increases in the intermodal rail market segment and the importance of improving rail performance as part of the supply chain. However, given the significant existing investment in terminals from the private sector, governments need to work with industry in planning and regulating terminal infrastructure. This will be necessary to ensure that incentives for industry to invest remain and the cost of developing new terminals is not simply passed to governments.

5.4 Issue d: efficient use of rail access arrangements

With respect to access arrangements two key issues arise:

- whether current regulatory arrangements promote efficient pricing; and
- whether the access regulation is applied to achieve efficient outcomes.

¹⁰ To date intermodal terminals have not been declared as nationally significant infrastructure on the basis that terminals can be easily duplicated. As a result, few intermodal terminals are regulated. Under current arrangements, operators can lodge a complaint with the National Competition Council to have access declared. In 1997, Specialised Container Transport (SCT) sought declaration of rail and freight support services in Western Australia (WA). Subsequently, the NCC recommended declaration of the rail line service but not the various freight support services to the WA Premier. The WA Government decided not to declare any of the services identified by SCT. This decision was appealed and subsequently withdrawn (Marshall and Mulheron, 2003). This illustrates the high transaction costs associated with the declaration process and high risks regarding the final outcome.

Efficient pricing of rail track access, theoretically involves prices reflecting marginal social costs, with full cost recovery achieved in the least distortive way (Productivity Commission, 2006). In practice, rail track access prices are determined by negotiation and are set to ensure total track revenue is between a regulated floor and ceiling and governed by the access undertaking. Due to the difficulties in setting these prices, there is some evidence that freight rail productivity could be impeded by the structure of access prices and a lack of pricing flexibility possible within the existing regulatory structure.

In the interstate (intermodal) market, prices have two components: a flag fall (per train km) and a variable charge (per gross tonne kilometre). During the consultation for this review, some rail operators identified the flag fall as a barrier to entry as it makes short-haul operations unviable. Other rail operators argue that the flag fall should be increased to encourage more efficient operations and that the flag fall is geared towards an indicative train type to increase the efficiency of operations.

BITRE (2003) concludes that the two-part tariff is an effective structure to achieve high cost recovery but the relative size of the variable and fixed component has a significant impact on allocative efficiency, competition and provision of train services. It is therefore not clear whether the pricing structure acts as a constraint on efficiency or enhances efficiency.

Price discrimination of rail track access is currently practised in a number of areas such as differential pricing for coal and intermodal traffic by Queensland Rail and the Australian Rail Track Corporation (Pacific National, 2006). However, a lack of pricing flexibility can lead to inefficiencies as the value of train paths can be time dependent, particularly in the intermodal rail market. For example, a train path that allows a train to leave the east coast on Friday night and arrive in Western Australia on Monday morning has a relatively high value due to customers' preferences. Currently, the pricing of rail access does not seem to reflect the differential value of train paths. The Australian Rail Track Corporation access undertaking requires pricing of 'like for like' services. Prices can be varied according to factors such as time or capacity, however, for these to be accepted by the regulator, the Australian Rail Track Corporation would have to prove that the demand profile for these services is different. This is hard to achieve in practice, particularly as the Australian Rail Track Corporation's track is vertically separated and has little access to end rail customer demand information. As such, price discrimination is generally not practised.

As rail transport is an 'excludable' service, scarcity of capacity implies that only one train can travel along the most preferred path. In a capacity-constraint environment, efficiency can be impacted in two ways:

- Existing train operators are not faced with the scarcity value of train paths and therefore may allocate resources inefficiently.
- New market entrants are disadvantaged as the price of less desirable train paths is not lower than the price of desirable train paths.

However, it is difficult to establish to what extent capacity is constrained in the intermodal rail market. As the Australian Rail Track Corporation is generating revenue that is well below the regulatory ceiling, it is clear that there is not an overall capacity problem. Nevertheless, stakeholders have indicated that there are capacity issues for particular train paths, particularly in and around urban areas.

The Australian Competition and Consumer Commission points out that applying Ramsey pricing to rail services, that is, charging rail customers with lower demand elasticities

higher prices to better recover fixed costs, can cause distortions in related markets. For example, pricing based only on demand elasticity may favour inefficient above rail operators with high price elasticity. Correctly estimating demand elasticities is also very difficult and increases the risk of track managers charging excessive prices where there is a lack of competition (ACCC, 2006). However, the Productivity Commission recommended that:

“Greater flexibility in the allocation of train paths would have potentially significant efficiency benefits. However, auctioning may not be cost effective. Development of cost-effective mechanisms designed to reveal valuations placed on train paths by users is to be encouraged.” (Productivity Commission, 2006)

Overall, there are a number of difficulties associated with differentiating prices. Firstly, in order to differentiate prices on the intermodal network according to time, capacity constraints would need to be ascertained. Secondly, it is difficult to establish that using a train path at particular times constitutes a different service compared to using it at other times. Thirdly, developing a charging model based on the demand elasticities of the service would be difficult given information problems and the information demands for such pricing required by the Australian Competition and Consumer Commission. Fourthly, there remains a risk of encouraging inefficient above rail operations.

It may therefore be worth investigating whether more active intervention from regulators could improve the efficiency of rail access prices. This would involve regulators and track managers working together to develop prices which more accurately reflect the marginal cost of a train path and more efficiently allocate common costs. At present, the role of regulators in influencing prices is dependent on the objectives of the regulator and the underlying access regulation. In some cases, where access undertakings are submitted on a voluntary basis there may be less regulatory authority and impetus for regulators to work with track managers to develop more efficient price outcomes.

Rail track access prices are also likely to be inefficient due to passenger priority distortions where track infrastructure is shared with passenger services. Passenger trains are given priority over freight services on all shared infrastructure. This severely reduces the train paths available for freight services and effectively requires rail freight to bear the cost of the capacity constraint. This is generally not considered when regulators are assessing track access prices as passenger and freight prices are determined separately.

Currently all rail track in Australia is subject to pricing determinations from the relevant regulator. This is carried out to ensure that track managers, as providers of natural monopoly infrastructure, do not charge monopoly rents. This regulation also sets the terms and conditions for access to the track and guides the relationship between above and below rail operators.

However, not all rail in Australia would be able to charge monopoly rents due to strong competition from road. For example, rail prices on the north-south interstate corridor and many regional grain lines are effectively capped below road prices. This means that costly and time consuming pricing determinations may be unnecessary as the track manager is unable to earn monopoly rent. In contrast, on the east-west interstate track or the coal lines, competition from other modes is limited, meaning a pricing determination may be necessary.

Adopting a light handed approach to rail price setting may allow more efficient prices to be developed and reduce the regulatory costs of rail transport. However, in this situation

regulators would still need to ensure access and train path allocation are provided fairly, and effectively manage the relationship between above and below rail providers.

This issue is of medium importance. A lack of price differentiation is likely to be a constraint on efficiency. However, the extent to which differentiated prices would increase efficiency is unknown as administrative charges and transaction cost may outweigh efficiency gains. Similarly, it is unclear whether the relative size of the variable and fixed component of track access prices is impeding efficiency, in part due to ambiguity regarding the objectives of access prices. Governments should investigate taking a more light-handed approach to regulating rail access prices. Taking a more outcomes-based approach to applying regulation is likely to improve the efficiency of pricing and reduce costs.

5.5 Issue e: pricing across transport modes

Rail track access prices are influenced by competition of road transport, with road prices providing an effective ceiling for rail prices where competition between modes is strong. However, road freight prices do not currently reflect social marginal costs in a way that reflects road use (mass/distance/location) and do not include externalities¹¹. This is likely to lead to a distortion between the relative price of road and rail.

In 2006, the Productivity Commission assessed whether competitive neutrality between road and rail freight pricing was an issue and found:

“In sum, the Commission has not found a compelling case that heavy vehicles competing with rail freight on major north–south corridors are relatively subsidised. [...] The flipside of this, though, is that the cost of heavy trucks using many rural local roads and lightly-used arterials is likely to be well above the network average charge. But many regional rail networks which compete with road for some bulk tasks (the haulage of grain, for example) are themselves subsidised, making it difficult to assess the relative distortion.” (Productivity Commission, 2006, pg XXXVI)

This highlights the problems caused by the current ‘pay as you go (PAYGO) road pricing model, which averages road costs by vehicle type leading to some cross subsidisation within vehicle classes. As noted by the Productivity Commission, this can lead to distortions between road and rail pricing on some regional roads. However, given the extensive subsidies given to regional rail, the actual distortion is unclear.

Externalities such as noise and greenhouse gas emissions also exist for both road and rail transport. With respect to emissions externalities, the introduction of the proposed Carbon Pollution Reduction Scheme would lead to an internalisation of both road and rail greenhouse gas externalities if the scheme is applied consistently across both modes.

Transport is intended to be included in the scheme. However, for heavy vehicles, fuel taxes will be cut on a cent for cent basis to offset the costs for the first year of the scheme. The fuel tax cut will then be reviewed (Department of Climate Change, 2008). Under such a scheme the cost of emissions from heavy vehicles will continue to be unpriced for the first year of the scheme, allowing the market failure from the carbon emissions to continue for the road sector. This will not only fail to address carbon externalities from road transport, but create short-term distortions between road and rail prices, as the emissions externality from the rail sector will be internalised.

¹¹ The COAG road reform agenda is aimed at developing mass-distance-location based charging for heavy vehicles in order to improve efficiency of road freight prices (see section 1.3.1).

This issue is of high importance as it has a large impact on the competitive neutrality between modes.

5.6 Recommendations

(a) Relevant state governments should investigate alternative market structures for low volume intrastate grain lines, including vertical reintegration and privatisation

In developing a long-term, coordinated, national plan for the role of rail within transport, any consideration for the future of intrastate grain networks should include an assessment of the optimal market structure. Where state governments own, manage or provide funding for low volume regional rail lines, they should investigate the benefits of vertical reintegration and in some cases privatisation of rail track and train operations. In some cases this would require the renegotiation of existing management contracts in place for these lines (for example, WestNet Rail in Western Australia currently has a long term lease on the Western Australian grain lines).

However, it should be noted that while there are a number of other issues associated with intrastate grain networks, it is important to consider changes to the market structure as part of the future plan for grain freight.

(b) In the medium term, the NTC should determine the costs and benefits of a national rail access and pricing framework

In the medium term, the NTC should determine the relative costs and benefits of implementing a nationally consistent rail access regime. The benefits from developing a national framework for economic regulation of all rail track should also be evaluated. This should include consideration of the different options, such as whether adoption of the Australian Rail Track Corporation model would achieve consistent and efficient outcomes across Australia, and what is the appropriate institutional framework for instigating such a change. For example, it should be determined whether a national rail economic regulator would provide benefits or whether economic regulation of rail should be conducted as part of a broader (multi-modal) transport regulator.

The Competition and Infrastructure Reform Agenda is currently intended to apply solely to nationally significant railways, which is generally interpreted to include only the interstate track. Any evaluation of the benefits of the Competition and Infrastructure Reform Agenda should aim to specify where application of a national access model would be beneficial and whether the current scope for applying the national model is sufficient. The Competition and Infrastructure Reform Agenda also aims to determine whether there is scope to remove access regulation where track managers are unlikely to earn monopoly rents (i.e. low volume lines, presence of strong road competition).

There are a number of issues that may contribute to the net benefits not being particularly high:

- the low share of rail freight that moves across track segments regulated by different entities;
- stakeholders have expressed the view that this issue is not a priority;
- legacy issues such as the private lease of rail track in Western Australia and existing long-term access contracts and access undertakings agreed between track

managers, above rail operators and regulators. The long-term contracts negotiated with track managers are also likely to reduce the costs imposed by various regulators; and

- the small number of full time employees in rail access regulation across Australia.

These issues are likely to reduce the benefits available from moving to a national regulatory framework, as well as increasing the costs of implementing such a model.

This is not seen as an immediate priority for improving productivity in the freight rail sector.

(c) The NTC should develop a nationally consistent regulatory model to ensure strategically significant terminals can be regulated as open access on a case by case basis

Governments should identify key strategic terminals as part of an integrated planning process (see section 4.4) and ensure there is a consistent framework for regulating access to terminals where they have been identified as strategic. As a result, the application of access regulation should be considered on a case by case basis for all terminals that are identified as strategic national terminals. However, this would need to be progressed with strong input and support from industry so that incentives for private investment in terminal infrastructure are not removed.

It is also important to consider whether common user marshalling areas should also be subject to a regulatory framework for access as they can be a similar entry barrier to intermodal terminals.

(d) All governments should work with the NTC in reducing the distortions between road and rail pricing

Road and rail pricing are highly interdependent. As such, it is imperative that the current road reform agenda be progressed by all governments to help remove existing distortions between modes. This will allow continued productivity gains across the transport sector. Moving towards mass-distance-location-based road charging will remove the road pricing distortion currently faced by the rail market, however, this is likely to take a number of years to implement.

As a second best solution to addressing this concern, a short-term measure of providing subsidy payments to the rail sector may be necessary to offset the impact of road price distortions, particularly for regional areas¹². Payments from governments may be necessary to remove distortions between modes until mass-distance-location pricing is available. This is already occurring in an ad hoc manner. However, as discussed in section 4.4, these should be paid under a clear and transparent framework, with payments calculated on a sound economic basis. Payments of subsidies to correct for road pricing distortions should also be seen as a transitional measure rather than an alternative to implementing mass-distance-location pricing.

In addition, the Commonwealth government should ensure that the Carbon Pollution Reduction Scheme be applied to road and rail transport in a consistent manner to ensure

¹² The Productivity Commission found truck movements on regional local roads were relatively subsidised as a result of road pricing imperfections. However, rail in regional areas also receives significant CSO funding making it difficult to determine whether there are competitive neutrality concerns in these areas.

distortions across the transport sector are addressed. The NTC recommends that greenhouse emissions from both rail transport and heavy vehicles are treated consistently under a scheme once the announced transitional measures applying to heavy vehicles have expired. A continuation of the transitional arrangements beyond the initial period will result in continuing distortions across modes. This will further reduce competitive neutrality problems across modes and benefit the transport sector as a whole.

(e) Relevant state and Commonwealth governments should determine whether the existing regulatory framework creates efficient outcomes

Rail track that faces strong competition from other modes should not be subject to pricing determinations from regulators as businesses will be unable to charge monopoly rents. However, regulators would still have a role in ensuring access and train paths are provided fairly to all above rail operators and managing the relationship between rail businesses.

Where competition from other modes is not strong, developing more flexible rail prices can help increase efficiency and resource allocation with the sector and improve cost recovery. Currently pricing to reflect factors such as time of day, demand for particular train paths and temporary capacity constraints is not undertaken mainly due to the information requirements necessary to develop such prices. As such, state and Commonwealth governments should review the requirements on regulators to ensure that pricing determinations are only carried out where track managers have market power.

Regulators should be proactive in working with track managers to develop more efficient prices that more effectively reflect the marginal costs associated with individual train paths and more efficiently allocate common costs. Governments should ensure that the objectives and underlying legislation governing the actions of regulators does not impede a more proactive stance in terms of price setting.

6. SAFETY, ENVIRONMENTAL AND TECHNICAL STANDARDS AND REGULATIONS

This section provides an analysis of the key issues associated with harmonisation of safety, environmental and technical standards and regulations. These issues include:

- Safety and environmental regulations vary across state borders and can impose excessive costs on the rail industry
- Inconsistent technical and infrastructure standards reduce the interoperability of rail assets and are costly to address

Recommendations to address these concerns have also been outlined in this section.

6.1 Issue a: inconsistent safety and environmental regulations

Differences in rail safety and environmental regulations can increase the transaction costs and reduce the returns available from providing rail services. In a speech to The Bureau of Transport and Regional Economics in 2005, the then managing director of Patrick Corporation stated:

“There are seven different track owners with whom the three above rail operators would need to negotiate access if they wished to operate nationally. There are 9 Acts covering rail safety and 3 different rail safety investigators, NSW, Victoria and ATSB covering the rest of the country. There are 15 Acts with powers over Occupational Health and Safety nationwide affecting rail operations and there are 76 Acts with powers over environmental management with which a national freight operator must comply.” (Productivity Commission 2006, p. 320)

The direct cost of rail safety regulation is estimated to total \$42 million per annum (Synergies, 2008), not including the \$11 million spent annually by industry on accreditation fees. The NTC has recently released a draft regulatory impact statement into the benefits of a single national rail safety regulator. This found that there are improved safety outcomes from moving to a single national regulatory system for rail safety (NTC, 2008). The federal government has also commenced a national review of occupational health and safety legislation with the aim of developing consistent model legislation across all states and territories. This has the potential to further improve consistency in the regulation of rail safety. However, there is potential for jurisdictions to implement varied legislation. It is therefore important that this is monitored to ensure consistency.

Inconsistencies also exist in the environmental regulations pertaining to rail (CRC for Rail Innovation, 2008). However, the impact of these variances is unclear. A scoping study completed by the NTC in 2004 for the Land Transport Environment Committee found that these issues could be sufficiently addressed through voluntary industry codes (NTC, 2004) and a Cooperative Research Centre for Rail Innovation study suggested that industry should drive changes in this area (CRC for Rail Innovation, 2008).

This issue is of high significance. Varying operational regulations across state borders can have large impacts on the costs of providing rail services and reduce the ability to move rail assets to the most productive location. The NTC is currently working on the implementation of a national rail safety regulatory framework. Improvements to productivity from increased harmonisation of environmental regulations may also be possible, however, limited information regarding the proposed benefits is available.

6.2 Issue b: harmonisation of technical standards

Technical standards in the railway industry apply to a number of parameters including track gauge, rolling stock, track capacity and communication systems and propulsion power sources (BITRE, 2006). These systems are not harmonised due to different infrastructure and assets being used across the network and different standards that have been developed and applied by rail businesses.

Harmonisation of technical standards may deliver benefits such as lower input costs, improvements in operational efficiency, higher inherent safety and lower training costs. It can also widen rail's freight market (BITRE, 2006). Harmonisation of technical standards could also lead to improved interoperability which could have a significant impact on operating costs. This has been recognised by the rail industry with the Rail Industry Safety and Standards Board having developed a Code of Practice for infrastructure, with national standards being developed (RISSB Website, 2009).

The Rail Industry Safety and Standards Board has also been working on part one of an 'industry rulebook', which is currently in the final draft stages. This has taken a number of years to develop and demonstrates the leadership role industry can take in developing industry standards. These standards generally relate to new assets and technologies that are developed by the rail industry to ensure a conformance of technical standards overtime, such as upgrade to train communication systems. The NTC strongly recommends that all industry participants align with the standards that have been developed through these industry bodies and this represents a strong opportunity for the rail industry to improve harmonisation and interoperability across the network.

BITRE (2006) concludes that there is merit in adopting a strategy of changing the standard when an asset is renewed, as this may be the most cost-effective way of achieving standardisation. However, as most rail assets have a long useful life, the benefits from this strategy may not be realised for a long time. Overall, there may be an economic case for harmonising some technical standards, particularly those that produce large productivity gains across the network.

A key example of these issues is on the interstate track where double stacking is not available from Parkes to Sydney and Adelaide to Melbourne and variations in train speeds, lengths and weights exist across the track. These differences reduce asset interoperability and utilisation. However it should be noted that the Australian Rail Track Corporation has made track and infrastructure improvements allowing increased train weights and track speeds since 1998 to improve the overall performance of the network (BITRE, 2006). The Australian Rail Track Corporation have also developed infrastructure standards for its network (ARTC, 2009).

The Independent Transport Safety and Reliability Regulator also pointed to the cost of harmonisation in its submission:

“Some consideration is being given to the introduction of new technologies and operating systems such as Automatic Train Protection/Control. Again these are being selected by rail firms. As in the past, it is possible that different firms may have different views about which system might be the best. Mandatory national standards for any particular new system may generate broad benefits but may also impose costs on rail firms that may have wished to pursue different directions.” (ITSRR, 2008)

This issue is of medium importance. Harmonisation of technical standards can reduce costs and improve asset utilisation, however, in practise this would be costly to achieve. A

coordinated national planning framework can help to identify opportunities to ensure greater harmonisation of technical standards across the industry in line with the development of industry standards. Government therefore has a role in ensuring a coordinated planning process exists for rail to determine where greater harmonisation can cost effectively increase productivity. However, harmonising technical standards should be led by industry, which has already begun to develop standards to address these concerns.

6.3 Recommendations

- (a) All state and territory governments should work with the NTC to help deliver on the COAG commitment to deliver a single national rail safety regulatory framework and monitor the outcomes of the current national occupational health and safety review**

In November 2008, the NTC released a regulatory impact statement for the development of a single national regulatory framework for rail safety. This has indicated that improved safety outcomes are likely to be available from moving to a nationally consistent regulatory framework for safety. The current national occupational health and safety review, which was announced by the Federal Minister for Employment and Workplace Relations, should also be monitored to ensure consistency in the implementation of model legislation across jurisdictions.

- (b) Industry bodies such as the Rail Industry Safety and Standards Board should work towards developing environmental standards to improve consistency across the rail industry**

Cooperative Research Centre for Rail Innovation completed an inventory of environmental regulations relating to the rail industry. This suggested that some inconsistencies existed across states. However, the impact of these variances is unclear. As such, it is difficult to estimate the benefits available from harmonisation although consultation conducted by the Cooperative Research Centre for Rail Innovation suggested variances in requirements imposed costs, particularly in relation to noise requirements (CRC for Rail Innovation, 2008).

As such, further research into the costs of maintaining varying environmental standards consistency need to be undertaken, with the Cooperative Research Centre for Rail Innovation well placed to undertake this work. An investigation into varying environmental standards across the rail industry also highlighted the role of voluntary industry standards being adopted to address these concerns. Industry should work with the Rail Industry Safety and Standards Board in developing appropriate standards to overcome these concerns.

- (c) Industry bodies such as the Rail Industry Safety and Standards Board should continue to develop technical and asset standards to improve harmonisation in rail while government should aim to identify opportunities for economically viable harmonisation through the planning process**

Varying asset and technical standards across Australia's rail network impose large costs on rail operations and restrict the technical innovations that can be easily implemented. Addressing variances relating to axle loading ability, gauge widths, communications and train envelopes would be costly to achieve and require coordination across the industry.

Greater coordination of rail technologies and assets can greatly increase productivity across the industry as has been seen from the standardisation of the interstate network.

Industry bodies such as the Rail Industry Safety and Standards Board should continue to develop standards for assets, infrastructure and rail technologies to improve harmonisation and interoperability within the industry.

Government should also be proactive in determining where opportunities for cost effective harmonisation exist through planning for rail's future (as discussed in section 5.1). Adequate forward planning for rail infrastructure will identify where harmonisation can produce net gains and ensure that future investments are made with the goal of creating a more harmonised and productive rail network. This should be done in coordination with existing work being progressed by industry.

(d) Rail businesses and Governments involved in purchases regarding rail technologies and assets should adhere to industry standards developed through organisations such as the Australasian Railway Association and Rail Industry Safety and Standards Board

Some standards are also being addressed through the work of industry bodies such as the Australasian Railway Association and the Rail Industry Safety and Standards Board. The Rail Industry Safety and Standards Board is an industry body that is wholly owned by the Australasian Railway Association and is currently developing voluntary national standards for infrastructure, rolling stock, communications and safety. The Rail Industry Safety and Standards Board is also close to releasing part one of an industry rulebook that has been in development for a number of years. This highlights the strong role for industry in improving the interoperability of technical standards, given the need for new standards to have industry support.

The NTC strongly encourages all rail businesses to adopt these standards to improve productivity and interoperability within the industry.

7. HUMAN CAPITAL

This section provides an analysis of problems recruiting, training and utilising labour effectively within the rail industry and provides recommendations to address these concerns.

7.1 Issue a: poor recruitment, training and utilisation of labour

The rail industry tends to be a traditional and technically focussed industry. This is evidenced in many businesses approaches to employment and training. The Hearsch information paper found that:

“There is a significant cultural problem within the industry regarding education and training. Much of the learning in the industry is ‘on the job’ and is thus passed on from one generation to the next. With constant changes in the industry, it is slipping behind other sectors in the economy with respect to innovative thinking and problem solving. More effort is needed to better educate and train a workforce beyond the traditional internal learning processes.” (Hearsch, 2008)

Despite the development of a Transport and Distribution Training Package for the rail industry, there is currently limited recognition of previous training and experience across the industry (Transport and Logistics Industry Skills Council, 2008). This makes it difficult for employees to move within the rail industry and increases the training and recruitments costs for businesses. There has been a tendency in the rail industry to conduct all training ‘in house’ and to favour employees with long histories within the one company. This system creates barriers to employee entry into the industry and creates the risk of underutilising human capital.

Rail providers indicated during the consultation process that the impact of this issue is of relatively low significance. Difficulty attracting and retaining skilled labour and ageing workforces are issues that are faced by many businesses across Australia. A number of businesses have expressed that this is an industry issue, with El Zorro stating that “...good businesses have no problems attracting and maintaining staff” (El Zorro, 2008). A national training package for the rail industry already exists and is underutilised. A number of other programs to attract staff have been implemented by the Australasian Railway Association and Cooperative Research Centre for Rail Innovation.

The National Transport Policy Framework Workforce Planning and Skills Working Group have also been tasked with investigating labour issues within the transport sector. As a result, this group has been working with industry representatives to build a framework for how governments can assist industry in addressing workforce planning and skills issues. This issue is therefore of low significance given the substantial work already being undertaken by industry and government bodies.

7.2 Recommendations

- (a) Industry should continue to work with the Workforce Planning and Skills Working Group to achieve better recruitment, training and labour utilisation practices in the rail industry**

The human capital productivity impediments should primarily be addressed by industry, with the Workforce Planning and Skills Working Group currently investigating where

governments can facilitate improved workforce practices from industry. Industry associations such as the Transport and Logistics Industry Skills Council, the Australasian Railway Association and Cooperative Research Centre for Rail Innovation have also developed a number of programs to improve recruitment, training and labour utilisation practices, and industry should continue to increase the take up of these programs.

8. PRODUCTIVITY MEASUREMENT

This section provides an analysis of the issues relating to inadequate collection and dissemination of rail performance data. Recommendations to address these concerns have also been outlined in this section.

8.1 Issue a: lack of available freight rail productivity data

There is currently no agreed measure of freight rail productivity for different rail market segments in Australia. As a result, it is difficult to measure the impact of current regulatory arrangements, market changes, technical innovations and investment choices.

While the absence of agreed measures of rail productivity has no direct impact on productivity, a problem arises over time as the success of government interventions cannot be measured. Measurement of productivity in the rail industry provides an important feedback loop to evaluate government intervention at different points in time. Maintaining quality data on the performance of rail is also necessary for adequate investment planning. It is also important to take a supply chain approach in collecting data, so that adequate planning across the supply chain can be undertaken. The Department of Planning and Infrastructure in Western Australia highlighted the importance of sufficient information in developing future rail policy and plans:

“For freight transport in both rural and urban areas, information is far less sufficient to establish a decent transport model for future road and rail demand forecasting. It is agreed that more emphasis should be put on the collection of freight information.” (DPI WA, 2008)

While there are a number of performance indicators reported by the Australian Rail Track Corporation and other rail businesses, these cannot be used to adequately evaluate the results of government policy and intervention. The Tasmanian working group on Strategic Research and Technology has also undertaken work to identify strategically important transportation data and a framework for collecting and reporting transportation data at a national level.

The Australasian Railway Association and Cooperative Research Centre for Rail Innovation current undertake some research with individual rail companies and across the industry. The Australasian Railway Association has also worked with Department of Infrastructure, Transport, Regional Development and Local Government in providing data to assist with the AusLink planning process (BITRE, 2008a). Since 2005-06 the Bureau of Infrastructure, Transport and Regional Economics has also published data on rail industry performance in conjunction with the Australasian Railway Association, namely the Rail Freight Performance Indicators. However, it is unclear whether this will continue to be produced regularly. The data available is also produced at a very high level and relates mainly to the interstate intermodal network.

Wills-Johnson has developed a data set of productivity indicators for the rail industry over the period 1900 to 1991. Due to the privatisation of rail that occurred in the 1990s up to date rail data is generally not publicly available. In the United States, data availability is mandated by the government (Wills-Johnson, 2007b).

This issue is of medium significance. It is important for governments to make well-informed decisions on transport policy and planning and have the necessary tools to

evaluate the success of these decisions. This will be particularly useful for government in developing long term integrated transport policy as discussed in section 4.3.

8.2 Recommendations

(a) National freight rail productivity indicators should be developed by Bureau of Infrastructure, Transport and Regional Economics or an appropriate national body to ensure that adequate information is available for policy and planning

Information on the performance and costs of rail operations across Australia will be needed to complement an effective long term transport planning. The substantial community service obligations and subsidy payments by government to the rail industry makes it imperative that the rail performance data is made available so that public evaluation of spending decisions can be undertaken.

Freight rail productivity measures should therefore be developed by Bureau of Infrastructure, Transport and Regional Economics or another national body who is able to undertake this task. The Bureau of Infrastructure, Transport and Regional Economics would be well placed to undertake this role as they already publish a number of rail performance indicators in conjunction with the Australasian Railway Association and have the ability to look at transport data collection and reporting across modes. In developing these indicators, the relevant body should also work closely with the Strategic Research and Technology Working Group, which have been working on identifying strategic data requirements and researching appropriate national mechanisms for collecting and reporting transport data.

Governments should work closely with these bodies to ensure adequate industry data is available to governments for transport policy development and planning purposes, with governments investigating the option of mandating the provision of data from rail businesses where necessary. Under this scenario, it would be important to ensure confidentiality concerns are dealt with, while allowing sufficient data to be made available to undertake meaningful analysis. Limits may also need to be placed on the public availability of this data, as the limited number of above and below rail operators may make aggregating confidential data difficult in practice.

The collection of rail productivity data should also be undertaken with a view to ensure good availability of information across the supply chain.

9. CONCLUSION

Productivity improvements within the rail sector can provide strong benefits for the transport sector as a whole. As such this review has assessed the current rail environment including government intervention. The review has also taken into account the likely impact of the current national transport reform agenda set by COAG and the Australian Transport Council.

The analysis of the key productivity impediments across the freight rail industry has shown that further work is necessary and that there is a role for government in addressing productivity impediments in the rail sector. Most importantly, governments should:

- develop more coordinated and transparent frameworks to facilitate planning and investment within the rail industry and build on the planning and investment already undertaken by governments individually;
- work with industry to ensure that policy objectives for funding being provided are being met. This will require reciprocal obligations from industry in terms of ensuring government monies are used efficiently and providing adequate information to governments regarding funding outcomes and expected future investment requirements; and
- reduce distortions across the transport sector through the progression of the COAG road reform plan and improved use of rail and terminal access arrangements.

Industry can also play a strong role in improving productivity through:

- developing and adhering to technical, operational and environmental industry standards and guidelines; and
- working to improve coordination along the supply chain.

The NTC also strongly recommends a review of passenger rail productivity to be conducted as part of a broader look into issues affecting the movement of people across all modes around Australia. Given the strong interdependencies between passenger and freight rail, a number of the impediments that impact productivity within the freight sector are likely to exist within the passenger rail sector. As such a further review of passenger rail productivity is likely to identify opportunities for improved government intervention and ensure the rail sector as a whole can benefit from continued productivity growth.

The NTC is seeking feedback on the issues and recommendations put forward in this paper to inform the development of the final position statement, which will be released in late April 2009. The recommendations from the freight rail productivity review will be provided in the final position statement will inform the NTC's 2009/2010 work programme.

Submissions to this paper are being sought until 9th April 2009. Submissions should address the appropriateness of the key issues and recommendations detailed in this paper. Interested parties are able to make a submission to the review online at www.ntc.gov.au or by mail to:

NTC Freight Rail Productivity Review
15/628 Bourke St
Melbourne VIC 3000

APPENDIX 1: SUBMISSIONS TO THE RAIL PRODUCTIVITY ISSUES PAPER

The NTC received 21 submissions to the Rail Productivity Issues Paper. These are listed below:

- 1 10,000 Friends of Greater Sydney (FROGS)
- 2 People for Ecologically Sustainable Transport (PEST)
- 3 Sydney Ports Corporation
- 4 Transport and Logistics Industry Skills Council Ltd
- 5 TTG Transportation Technology Pty Ltd
- 6 Association of Tourist and Heritage Rail Australia
- 7 Cooperative Research Centre for Rail Innovation
- 8 Hardface Technologies Pty Ltd
- 9 Ministry of Transport – New South Wales
- 10 Australian Medical Association (South Australia) Inc. – Road Safety Committee
- 11 Phillip Laird – University of Wollongong
- 12 Australian Rail Track Corporation (ARTC)
- 13 Australasian Railway Association (ARA)
- 14 Queensland Rail (QR) Limited
- 15 Asciano
- 16 Blue Mountains Commuter and Transport Users Association
- 17 Rail, Tram and Bus Industry Union (RTBU)
- 18 El Zorro Transport Pty Ltd
- 19 Department of Planning and Infrastructure – Western Australia
- 20 New South Wales Farmers’ Association
- 21 Independent Transport Safety and Reliability Regulator (ITSRR)

APPENDIX 2: OVERVIEW OF THE COMPETITION AND INFRASTRUCTURE REFORM AGREEMENT (CIRA)

The Competition and Infrastructure Reform Agreement was agreed by COAG in February 2006, prior to the Productivity Commission inquiry into Road and Rail Infrastructure Pricing (COAG, 2006b).

The agreement aims to provide a simpler and nationally consistent approach to the economic regulation of nationally significant infrastructure. A target date of December 2008 was set for implementing a simpler and nationally consistent system of rail regulation for agreed interstate rail track and major intrastate corridors.

The key sections of the CIRA relevant to the operation of rail are set out below (COAG, 2006a):

Simpler and consistent regulation of significant infrastructure

- 2.1 The Parties agree to establish a simpler and consistent national approach to economic regulation of significant infrastructure.
- 2.2 The Parties agree that, in the first instance, terms and conditions for third party access to services provided by means of significant infrastructure facilities should be on the basis of terms and conditions commercially agreed between the access seeker and the operator of the infrastructure.
- 2.3 The introduction of price monitoring for services provided by means of significant infrastructure facilities should be considered, where this would improve the level of price transparency, as a first step where price regulation may be required, or when scaling back from more intrusive regulation.
- 2.4 All third party access regimes for services provided by means of significant infrastructure facilities will include the following consistent regulatory principles.
 - a. Objects clauses that promote the economically efficient use of, operation and investment in, significant infrastructure thereby promoting effective competition in upstream or downstream markets.
 - b. Regulated access prices should be set so as to:
 - i. generate expected revenue for a regulated service or services that is at least sufficient to meet the efficient costs of providing access to the regulated service or services and include a return on investment commensurate with the regulatory and commercial risks involved;
 - ii. allow multi-part pricing and price discrimination when it aids efficiency;
 - iii. not allow a vertically integrated access provider to set terms and conditions that discriminate in favour of its downstream operations, except to the extent that the cost of providing access to other operators is higher; and
 - iv. provide incentives to reduce costs or otherwise improve productivity.
 - c. Where merits review of regulatory decisions is provided, the review will be limited to the information submitted to the regulator.
- 2.5 The Parties agree to amend clause 6 of the Competition Principles Agreement to include subclause 2.4 above.

- 2.6 The Parties agree to introduce requirements that regulators will be bound to make regulatory decisions under an access regime within six months, provided that the regulator has been given sufficient information.
- a. Regulators will have the discretion to determine when the six month time limit is suspended:
 - i. Grounds for commencing time limits include when the regulator considers that sufficient information has been provided to enable the regulatory process to commence; and
 - ii. Grounds for suspending time limits include requests for further information from significant infrastructure facility service providers, provided these are on reasonable grounds, and consultation periods during which the regulator seeks submissions from third parties or the community.
 - b. Where the service provider of a significant infrastructure facility has not provided the requested information, a regulator will be permitted to make a determination on the information before it in order to satisfy six month time limits.
- 2.7 The principles in clause 2.4 and 2.6 will be incorporated in existing access regimes for services provided by means of significant infrastructure facilities and Part IIIA of the *Trade Practices Act 1974* as soon as practicable or as they are reviewed, provided that they are included in such regimes no later than the end of 2010.
- 2.8 Commonwealth and State officials will oversight the implementation of the principles in clauses 2.4 and 2.6, including developing a streamlined process and appropriate administrative arrangements for the certification of access regimes, and may develop further proposals for consideration by COAG for the adoption of appropriate additional regulatory principles that may contribute to a simpler and consistent national approach to regulation.
- 2.9 The Parties agree that, to advance the objective of a simpler and consistent national approach to regulation, all state and territory access regimes for services provided by means of significant infrastructure facilities will be submitted for certification in accordance with the *Trade Practices Act 1974* and the Competition Principles Agreement.
- a. All new third party access regimes will be submitted for certification as soon as practicable.
 - b. Third party access regimes existing at the time this agreement commences will be submitted for certification as soon as practicable, or as they are reviewed, provided they are submitted for certification no later than the end of 2010.
 - c. The certification of access regimes under this clause is subject to Parties agreeing a streamlined certification process and appropriate administrative arrangements to be developed as part of the mechanism established under clause 2.8.

Rail freight infrastructure

- 3.1. The Parties agree to implement a simpler and consistent national system of rail access regulation, using the Australian Rail Track Corporation access undertaking to the Australian Competition and Consumer Commission as a model, to apply to the following agreed nationally significant railways:
- a. Interstate rail track from Perth to Brisbane, currently managed by the Australian Rail Track Corporation and other parties, subject to the outcome of commercial negotiations; and

- b. Major intra-state freight corridors on an agreed case by case basis depending on the costs and benefits of inclusion under a national regime.
- 3.2. The Parties agree to develop an agreed approach to the application of the Australian Rail Track Corporation access undertaking model including pricing and access mechanisms that will be appropriate if vertically integrated operators retain control of relevant sections of track.
- 3.3. The Parties agree that state based rail access regimes governing other significant export related rail infrastructure facilities will be submitted for certification as required by clause 2.9.
- 3.4. This agreement does not require any change to passenger priority policies.

Promotion of competitive infrastructure arrangements through competitive tendering

- 5.1. In some circumstances competitive infrastructure market structures are not feasible because the infrastructure exhibits natural monopoly characteristics. Where governments are considering the development of such monopoly infrastructure, they can initiate competition for the market through competitive tendering that promotes efficient service delivery. This allows the market to establish the terms and conditions for the supply of infrastructure services, reducing the need for subsequent regulation.
- 5.2. The Parties agree to consider the use of competitive tendering to establish the terms and conditions for the supply of significant new services provided by government owned monopoly infrastructure.
- 5.3. The Commonwealth has introduced amendments to Part IIIA of the *Trade Practices Act 1974* to provide that declaration will not apply to government owned infrastructure developed by way of a competitive tender approved by the Australian Competition and Consumer Commission.
- 5.4. For the purposes of clause 5.3, the Parties agree to work together to develop a consistent set of criteria for access related elements of tenders for the provision of nationally significant infrastructure facility services.

Competitive neutrality of government business enterprises

- 6.1 The Parties agree to enhance the application of competitive neutrality principles to government business enterprises engaged in significant business activities in competition with the private sector:

Objectives

- a. That the enterprise has clear commercial objectives.
- b. That any non commercial objectives or obligations established for the enterprise are clearly specified and publicly reported.
- c. That enterprises do not exercise regulatory or planning approval functions in circumstances in which they compete with private sector enterprises.

Governance

- d. That the responsibilities of the governing board of the enterprise and the performance measures against which the board will be held accountable are published.
- e. That the governing board is appointed on the basis of particular skills needed by the board.

- f. That having received strategic guidance from the government about the achievement of its objectives, the enterprise has operational autonomy in the day to day management of its affairs.
- g. That the dividend policy applicable to the enterprise should be clearly and publicly specified.
- h. That any payments to the government as shareholder or for the purposes of competitive neutrality, such as taxes, tax equivalent payments, special dividends, capital repayments, are identified in a transparent manner.

Reporting

- i. That at least annually the enterprise will report publicly on its commercial performance and on its performance of any non commercial activities.
- j. That any directions given to the enterprise by the government are published.
- k. That where the legislation establishing an enterprise derogates from competitive neutrality the derogation has been published.

APPENDIX 3: KEY FINDINGS FROM THE PRODUCTIVITY COMMISSION REPORT INTO ROAD AND RAIL INFRASTRUCTURE PRICING

In 2006, the Productivity Commission (PC) completed an inquiry into road and rail freight infrastructure pricing. The relevant findings from the PC report are as follows:

- **Competitive neutrality.** *‘The available evidence, while not conclusive, does not support the contention that road freight is subsidised relative to rail on either the inter-capital corridors or in regional areas.’* (Finding 8.2, PC 2006, pg LIII)
- **Price discrimination.** *‘While access regimes do not explicitly preclude rail infrastructure providers from allocating proportionately more common costs to less price-sensitive users, it is not clear that the benefits of such pricing are adequately reflected in the approach of regulators. Concern that price discrimination could distort downstream markets in some instances should not be a reason for precluding or discouraging it where it has the potential to lead to more efficient outcomes (and, importantly, enable additional revenue to be obtained to allow the ongoing provision of a service).’* (Finding 6.3, PC 2006, pg 144)
- **Community service obligations.** *‘Community service obligation payments to rail are substantial, but their incidence and subsidisation effects are unclear. There would be benefits in making the objectives and extent of CSO payments more transparent and requiring them to be explicitly funded on-budget. Greater transparency of CSO payments would provide greater assurance that they do not raise competitive neutrality issues, while consistent use of on-budget funding would help ensure ongoing scrutiny of their appropriateness.’* (Finding 6.7, PC 2006, pg 156)
- **Economic cost recovery.** *‘Rail infrastructure operators generally are unable to fully cover economic costs and often are reliant on government subsidies of various forms to maintain viability. These subsidies are potentially significant in affecting competition between road and rail freight.’* (Finding 6.8, PC 2006, pg 222)
- **Rail safety.** *‘There are efficiency gains to be obtained from a single institutional framework for safety regulation of rail. The adoption of nationally consistent rail safety regulation legislation by July 2007 is, therefore, a priority. Gains from harmonisation would be compromised if jurisdictions legislate based on differing interpretations of the nationally agreed draft bill.’* (Finding 11.6, PC 2006, pg 322)
- **Access regulation.** *‘There are significant potential economic benefits from achieving a nationally consistent approach to access regulation of the rail sector. The reform measures agreed by COAG in February 2006 represent a way forward to achieving such consistency. Progress of the current agreed COAG reforms should be monitored to determine whether there are likely to be additional net benefits from moving to a single national regulator or regulatory regime.’* (Finding 11.7, PC 2006, pg 326)

Recommendations from this inquiry were put to COAG in 2007 with the purpose of assisting COAG implement more efficient pricing of road and rail freight infrastructure through consistent and competitively neutral pricing regimes. The key findings and recommendations with respect to improved productivity within the rail sector and COAG’s responses are reproduced below:

- **Government corporations:** *‘Relevant governments should take steps to more strictly apply the corporatization model to government-owned railways in order to improve industry performance. Priorities include greater clarity of objectives, improved transparency of the external governance role of ministers, and a general strengthening of accountability.’* (Recommendation 12.2, PC 2006, pg 343)

COAG agreed in principle, noting that actions to address this issue were included in the Competition and Infrastructure Reform Agenda (CIRA) signed by COAG in 2006.

- **Community service obligations:** *‘Greater Transparency in funding decisions for Community Service Obligations – including enunciation of objectives, and demonstration of how contributions will achieve stated objectives at least cost – should be introduced by all governments as soon as possible. Among other things, this is needed to facilitate fully commercial provision of rail freight operations.’* (Recommendation 12.2, PC 2006, pg 343)

COAG agreed that governments should ensure transparency of CSO funding and that this should be done under the existing National Competition Policy commitments.

- **Rail safety:** *‘National consistency and coordination in rail regulatory frameworks including of safety, operational and technical standards — should be expedited by all governments, monitored by the National Transport Commission on behalf of the Australian Transport Council.’* (Recommendation 12.3, PC 2006, pg 344)

COAG noted that harmonisation of rail safety regulations is being carried out by the NTC and asked the Australian Transport Council to report on implementation.

- **Access regulation and pricing:** *‘Progress in implementing the February 2006 COAG agreement to adopt a nationally-consistent approach to regulation of all nationally significant infrastructure should be monitored by the NTC in relation to rail to determine whether there are likely to be additional benefits in moving to a single national regulatory regime and regulator. The objects clause, declaration thresholds and pricing principles now embodied in Part IIIA of the Trade Practices Act (which, among other things, allow for multi-part pricing and price discrimination when they aid efficiency) should be incorporated into all State and Territory rail access regimes.’* (Recommendation 12.4, PC 2006, pg 345)

COAG expressed that these issues would be addressed under the implementation of the CIRA, with consistency of regulatory principles expected to be achieved by 2010.

- **Access regulation and pricing:** *‘There appears to be scope to moderate or even revoke, access regulation where pricing by vertically-separated below-rail operators is significantly constrained by competition from road or sea freight transport operators. Building on COAG’s agreement to promote nationally-consistent access regulation of major infrastructure, a process should be established by COAG for reviewing the need for access regulation of vertically-separated rail networks.’* (Recommendation 12.5, PC 2006, pg 345)

According to COAG, this issue will be addressed through implementation of the CIRA agreement, as this allows for case by case application of access regulation.

- **Market Structure:** *‘Given the mixed success of vertical separation in encouraging above-rail competition, whether allowing vertical reintegration of particular rail lines or networks would promote their commercial viability and deliver net benefits should be the subject of detailed independent examination on a case-by-case basis, commissioned by relevant governments.’* (Recommendation 12.6, PC 2006, pg 346)

COAG commented that the appropriateness and viability of vertical integration of particular rail lines or networks is a matter for each jurisdiction to determine on a case by case basis.

As such, the majority of rail reforms proposed by the Productivity Commission were intended to be addressed through the adoption of the Competition and Infrastructure Reform Agreement. The Council of Australian Government Rail Reform Agenda, which incorporates the Competition and Infrastructure Reform Agreement, has not been progressed, and incorporation of the Part IIIA of the Trade Practices Act into State and Territory access regimes has not occurred. With respect to access regulation and allowing vertical reintegration, no progress has been made.

APPENDIX 4: NATIONAL TRANSPORT POLICY FRAMEWORK

National Transport Policy Framework vision, policy objectives and policy principles

Vision for Australia's Transport Future

Australia requires a safe, secure, efficient, reliable and integrated national transport system that supports and enhances our nation's economic development and social and environmental well-being.

Transport Policy Objectives

To achieve this vision, Australia's Transport Ministers commit to the following policy objectives:

- **Economic:** To promote the efficient movement of people and goods in order to support sustainable economic development and prosperity.
- **Safety:** To provide a safe transport system that meets Australia's mobility, social and economic objectives with maximum safety for its user.
- **Social:** To promote social inclusion by connecting remote and disadvantaged communities and increasing accessibility to the transport network for all Australians.
- **Environmental:** Protect our environment and improve health by building and investing transport systems that minimise emissions and consumption of resources and energy.
- **Integration:** Promote effective and efficient integration and linkage of Australia's transport system with urban and regional planning at every level of government and with international transport systems.
- **Transparency:** Transparency in funding and charging to provide equitable access to the transport system, through clearly identified means where full cost recovery is not applied.

Transport Policy Principles

Australia's transport policy framework is underpinned by the following guiding principles:

- **Infrastructure pricing:** sending the appropriate signals to influence supply and demand for infrastructure;
- **Competitive markets:** establishing competitive markets wherever possible to minimise the need for regulation;
- **Private sector:** involve the private sector, where it is efficient to do so, in delivering outcomes;
- **National regulation:** a national perspective should be adopted where regulation is required;
- **National markets:** encourage national markets where possible; and
- **Customer:** Customer – focussed. Equitable access for all users.

APPENDIX 5: OVERVIEW OF ECONOMIC AND ACCESS REGULATORS

State	Economic Regulator	Safety Regulator	Safety Investigator
Victoria	<i>Essential Services Commission (ESC)</i>	Public Transport Safety Victoria	Office of the Chief Investigator
	ESC regulates the access arrangements for the urban (Connex), regional (V/Line) and South Dynon port terminal networks		
New South Wales	<i>Independent Pricing and Regulatory Tribunal (IPART)</i>	Independent Transport Safety and Reliability Regulator	Office of the Transport Safety Investigator
	IPART regulates the access arrangements for the RailCorp and Hunter Valley networks		
Queensland	<i>Queensland Competition Authority (QCA)</i>	Queensland Transport	Queensland Transport
	QCA regulates the access arrangements for the Queensland Rail network		
Western Australia	<i>Economic Regulation Authority (ERA)</i>	Office of Rail Safety WA (DPI)	Department of Planning and Infrastructure
	ERA regulates the access regime for rail track operated by WestNet rail in the state's south-west		
South Australia	<i>Essential Services Commission of South Australia (ESCOSA)</i>	Department of Transport, Energy and Infrastructure	Department of Transport, Energy and Infrastructure
	ESCOSA regulate the SA access regime which covers the TransAdelaide urban network, Genesee and Wyoming regional lines and the Great Southern Railway passenger terminal		
Tasmania	<i>Economic regulation is being developed</i>	Department of Infrastructure, Energy and Resources	Department of Infrastructure, Energy and Resources
Northern Territory	<i>No Economic Regulator</i>	Department of Planning and Infrastructure	Department of Planning and Infrastructure
Commonwealth	<i>Australian Competition and Consumer Commission (ACCC)</i>	No national safety regulator	Australian Transport Safety Bureau
	<i>National Competition Council (NCC)</i>		
	Australian Competition and Consumer Commission regulates access for the Australian Rail Track Corporation managed interstate track network NCC certify state access regimes and are responsible for declaring infrastructure as 'essential'		

Source: Various jurisdiction and regulator websites, July 2008

APPENDIX 6: OBJECTIVES AND PLANNING FUNCTIONS OF VARIOUS GOVERNMENT AND GOVERNMENT OWNED CORPORATIONS

Table 2. Government and government owned corporation objectives

Government body	Objectives
Federal Department of Infrastructure, Transport, Regional Development and Local Government	<p>AusLink will promote sustainable national and regional economic growth, development and connectivity by contributing to the development of an integrated National Network which:</p> <ul style="list-style-type: none"> ▪ improves national and interregional connectivity for people, communities, regions and industry ▪ improves national, interregional and international logistics ▪ enhances national, interregional and international trade ▪ enhances health, safety and security ▪ is consistent with the obligation to current and future generations to sustain the environment ▪ is consistent with viable, long-term economic and social outcomes ▪ is linked effectively to the broader transport network. (DOTARS, 2004)
Australian Transport Council (ATC)	<p>Australian governments have the following transport policy objectives:</p> <ul style="list-style-type: none"> ▪ Economic: To promote the efficient movement of people and goods in order to support sustainable economic development and prosperity ▪ Safety: To provide a safe transport system that meets Australia's mobility, social and economic objectives without killing or maiming its users ▪ Social: To promote social inclusion by connecting remote and disadvantaged communities and increasing accessibility to the transport network to allow equitable access to community resources ▪ Environmental: Protect our environment and improve health by building and investing in the efficient movement of goods and people which minimises emission and consumption of resources and energy ▪ Integration: Promote effective and efficient integration and linkage of Australia's transport system with urban and regional planning at every level of government and with international transport systems ▪ Transparency: Transparency in funding and charging (ATC, 2008)
Infrastructure Australia (IA)	<p>Infrastructure Australia's goals are to:</p> <ul style="list-style-type: none"> ▪ increase the economic standard of living for Australians; ▪ achieve environmental sustainability and reduced greenhouse gas emissions; and ▪ improve social outcomes, quality of life and reduced social disadvantage in our cities and regions. (IA, 2008)

<p>State government transport departments (no transport policy objectives were identified for New South Wales, Tasmania, South Australia, Northern Territory or Australian Capital Territory)</p>	<p>Victoria: <i>Freight Futures</i> adopts the following objectives:</p> <ul style="list-style-type: none"> ▪ Facilitate the efficient movement of freight in Victoria ▪ Reduce the cost and improve the reliability of supply chains ▪ Manage and mitigate any adverse impacts of freight planning and operations on communities and the environment ▪ Optimise the use of existing network infrastructure ▪ Provide appropriate priority for freight on the network in the context of competing demands ▪ Plan and deliver new network infrastructure in a timely manner ▪ Identify and protect freight network options where necessary to ensure future capacity, flexibility and certainty ▪ Provide a policy environment that encourages private sector investment (Victorian Government, 2008) <p>Western Australia, Freight Network Review, 2002 put forward the following objectives:</p> <ul style="list-style-type: none"> ▪ reduce greenhouse gases, air emissions, and in particular toxic chemical emissions; ▪ assist in the transition to alternatives to oil as a fuel for transport; ▪ reduce the impact of noise and vibration on communities; ▪ lessen or overcome severance of communities; ▪ contribute to the maintenance and improvement of natural ecosystems, including biodiversity; ▪ enable communities to satisfy their goods and service needs; ▪ improve the economic, social and environmental returns from freight to government agencies, private sector operators and the community; ▪ efficiently allocate land to service the freight industry; ▪ fulfil the best international standards for health, safety and well being for those employed in the freight sector; and ▪ seek to create robust and flexible systems (Working Paper No. 1, April 2002). <p>Queensland Transport, Integrated Transport Planning Framework (Queensland Transport, 2003)</p> <ul style="list-style-type: none"> ▪ Economic growth, efficiency and effectiveness ▪ Health, safety and security ▪ Accessibility and mobility ▪ Environmental Responsibility <p>Queensland Transport's Rail Network Strategy's objectives aim to Queensland Transport (2001):</p> <ul style="list-style-type: none"> ▪ Enhance the role of the rail network in implementing the Government's objectives and priorities. ▪ Develop a reference framework for the investments made by the state in its rail network. ▪ Encourage innovative private sector investment in the railway network in Queensland. ▪ Obtain the maximum benefit from National Competition Policy (NCP) for the State's rail network. ▪ Gain acceptance of, and encourage joint Commonwealth-state partnerships in developing Queensland's nationally significant rail corridors. ▪ Develop strategic, rail-based linkages between individual regional transport plans. ▪ Control and manage rail corridor land effectively.
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	<ul style="list-style-type: none"> ▪ Promote the concurrent use of rail corridors for both rail and non-rail purposes.
<p>Government owned corporations (This list is not exhaustive, but provides an overview of the types of objectives that government owned corporations are subject to)</p>	<p>Australian Rail Track Corporation (ARTC) Company Profile (from ARTC Charter), 2008</p> <ul style="list-style-type: none"> ▪ Improve performance and efficiency of interstate rail infrastructure ▪ Increase capacity utilisation ▪ Listen, understand and respond to the market ▪ Operate on sound commercial principles ▪ Provide our shareholders with a sustainable return on capital invested <p>Queensland Rail, Our Mission (Queensland Rail website, accessed December 2008)</p> <p>QR’s goals are the key strategic outcomes that we will achieve over the next five years.</p> <ul style="list-style-type: none"> ▪ Our shareholders value QR as a sound commercial investment. ▪ QR is recognised as a national leader in transport solutions with global reach. ▪ QR’s people are recognised for service excellence. ▪ Customers are able to achieve their sustainability outcomes (social, safety and environment) through the use of QR’s services and products. <p>Port of Melbourne, Port Services Act 1995</p> <ul style="list-style-type: none"> ▪ The objectives of the Port of Melbourne Corporation are: <ul style="list-style-type: none"> ▪ to manage and develop the Port of Melbourne in an economically, socially and environmentally sustainable manner; ▪ to ensure that essential port services of the port of Melbourne are available and cost effective; ▪ to ensure, in co-operation with other relevant responsible bodies, that the port of Melbourne is effectively integrated with other systems of infrastructure in the State; ▪ to facilitate, in co-operation with other relevant responsible bodies, the sustainable growth of trade through the port of Melbourne.

Table 3. Transport planning and funding roles across governments

Government body	Involvement in transport planning	Transport funding responsibilities
Federal Department of Infrastructure, Transport, Regional Development and Local Government	<ul style="list-style-type: none"> • Undertaking planning for Australia's strategic transport links (road and rail) 	<ul style="list-style-type: none"> • Provides funding (road and rail) for: <ul style="list-style-type: none"> • National network (for rail through Australian Rail Track Corporation) • Nationally strategic transport links • Local and regional transport infrastructure together with state and local governments
Australian Transport Council (ATC)	<ul style="list-style-type: none"> • ATC is responsible for driving and implementing national transport policy reforms 	<ul style="list-style-type: none"> • None
Infrastructure Australia (IA)	<ul style="list-style-type: none"> • IA provides advice government on infrastructure priorities and other infrastructure policy 	<ul style="list-style-type: none"> • None (Provides recommendations to government on funding priorities)
State government transport departments	<ul style="list-style-type: none"> • State transport planning (rail – passenger and freight, road and ports) • State land use planning 	<ul style="list-style-type: none"> • Funding for state transport projects directly and through government owned corporations • Funding for local government transport infrastructure
Government owned corporations	<ul style="list-style-type: none"> • Planning undertaken for individual corporations (i.e. rail network, port infrastructure) 	<ul style="list-style-type: none"> • Receive government funding • Some projects may be funded through government owned corporations revenue

REFERENCES

- Apelbaum Consulting Group Ltd (Apelbaum), (2007), *Australian Rail Industry Report 2006*
- Asciano, (2008), *Submission to the National Transport Commission Rail Productivity Review*
- Australian Competition and Consumer Commission (ACCC), (2006), *Submission to the Productivity Commission Draft Report into Road and Rail Freight Infrastructure Pricing*
- Australian National Audit Office (ANAO), (2007-08), *Administration of Grants to the Australian Rail Track Corporation*, Audit Report No.22 2007–08, Performance Audit
- Australasian Railway Association (ARA), (2007), *Australian Rail Industry Report*
- Australian Rail Track Corporation (ARTC), (2008), *Company Profile*, Available <http://www.artc.com.au/Content.aspx?p=112>, Accessed 27 January 2009
- Australian Rail Track Corporation (ARTC), (2009), *Infrastructure Standards*, Available <http://www.artc.com.au/Content.aspx?p=144>, Accessed 27 January 2009
- Australian Transport Council (ATC), (2008a), *ATC Joint Communiqué November 2008*
- Australian Transport Council (ATC), (2008b), *ATC Joint Communiqué May 2008*
- Australian Transport Council (ATC), (2008c), *National Transport Policy Framework*
- Booz & Co, (2009), *Intermodal Supply Chain Pilot Study, Working Paper 1 report*, unpublished
- Bureau of Infrastructure, Transport and Regional Economics (BITRE), (2008a), *Information Paper 62, Australian Intercapital Rail Freight Performance Indicators 2006-07*
- Bureau of Infrastructure, Transport and Regional Economics (BITRE), (2006), Report 114, *Optimising harmonisation in the Australian railway industry*
- Bureau of Infrastructure, Transport and Regional Economics (BITRE), (2008b), *Australian Transport Statistics Yearbook 2007*
- Bureau of Transport and Regional Economics (BTRE), (2003), Report 109, *Rail Infrastructure Pricing: Principles and Practice*
- Council of Australian Governments (COAG), (2006a), *Competition and Infrastructure Reform Agreement*
- Council of Australian Governments (COAG), (2006b), *Competition and Infrastructure Reform Agreement Communiqué*, 10 February 2006
- Council of Australian Governments (COAG), (2007a), *COAG National Reform Agenda – Competition Reform Plan*, April 2007
- Council of Australian Governments (COAG), (2007b), *COAG National Reform Agenda – Regulatory Reform Plan*, April 2007

Council of Australian Governments (COAG), (2008), *Council of Australian Governments Reform Council, Report to the Council of Australian Government*, March 2008, Available http://www.coag.gov.au/coag_meeting_outcomes/2008-03-26/docs/CRC_report_to_COAG_2008.rtf, Accessed 27 January 2009

Cooperative Research Council (CRC) for Rail Innovation, (2008), *R1.102 – Environmental Regulations Pertaining to Rail: Developing Best Practice*, Available, CRC for Rail Innovation Website, <http://www.railcrc.net.au/research/enviroreg-r1/index.html>, Accessed 27 January 2009

Department of Climate Change – Commonwealth, (2008), *Carbon Pollution Reduction Scheme: Australia's Low Pollution Future – White Paper*, Available at <http://www.climatechange.gov.au/whitepaper/index.html>

Department of Infrastructure – Victoria, (2007), *Victorian Rail Freight Network Review, Switchpoint: The template for rail freight to revive and thrive!*

Department of Infrastructure, Energy and Resources (DIER) – Tasmania, (2008), Website accessed December 2008, http://www.dier.tas.gov.au/major_projects

Department of Planning and Investment – Western Australia (DPI WA), (2002), *Freight Network Master Plan*

Department of Planning and Investment – Western Australia (DPI WA), (2008), *Submission to the Rail Productivity Review Issues Paper*

Department of Transport – Victoria, (2008), *Freight Futures: Victorian Freight Network Strategy*

Department of Transport and Regional Services (DOTARS), (2004), *AusLink White Paper, Building our National Transport Future*

El Zorro, (2008), *Submission to the Rail Productivity Review Issues Paper*

Economic Regulation Authority Western Australia (ERA), (2008), *The Pilbara Infrastructure Pty Ltd, Draft Determination on the Proposed Segregation Arrangements*

John Hearsch Consulting Pty Ltd (Hearsch), (2008), *Rail Productivity Information Paper*, <http://www.ntc.gov.au/filemedia/Reports/RailProductivityInfoPaperMarch08.pdf>

Independent Pricing and Regulatory Tribunal (IPART) – New South Wales, (2008), *Reforming Port Botany's Links with Inland Transport*

Infrastructure Australia (IA), (2008), *Discussion Paper 1: Australia's Future Infrastructure Requirements*

Independent Transport Safety and Reliability Regulator (ITSRR) – New South Wales, (2008), *Submission to the Rail Productivity Review Issues Paper*

Marshall, B. and Mulheron, R. (2003), *Bond Law Review*, Volume 15 Issue 2 Article 15, *Declarations Under Part IIIA of the Trade Practices Act: The Case for Abolishing the Public Interest Criterion*

Meyrick & Arup, (2006), *National Intermodal Terminal Study*

- National Transport Commission (NTC)/Land Transport Environment Committee, (2004), *Scoping Rail Environmental Issues, Discussion Paper*
- National Transport Commission (NTC), (2008), *Single National Rail Safety Regulatory and Investigation Framework Draft Regulatory Impact Statement*
- New South Wales Farmers' Association, (2008), *Submission to the Rail Productivity Review Issues Paper*
- Minister of Transport – Victoria, (2008), *Media Release, Minister Kosky Inspects Mildura Freight Line Works, May 2008*
- O'Donnell, S. (2007), *Goonyella Coal Chain Capacity Review*
- Pacific National, (2006), *Submission to Productivity Commission regarding draft report on road and rail freight infrastructure pricing*
- Papatheodorou, A. (2006), *Corporate Rivalry and Market Power*, IB Tauris
- Port Services Act (1995), *Victorian Legislation and Parliamentary Documents, Act No. 82/1995*, Version incorporating amendments as at 1 July 2005
- Productivity Commission (1999), *Productivity Commission Inquiry Report, Progress in Rail Reform*
- Productivity Commission (2006), *Productivity Commission Inquiry Report, Road and Rail Freight Infrastructure Pricing*
- Productivity Commission, (2008a), *Productivity Primer*, Available <http://www.pc.gov.au/research/productivity/primer>, Accessed 27 January 2009
- Productivity Commission, (2008b), *Productivity Commission Research Paper, Financial Performance of Government Trading Enterprises 2004-05 to 2006-07*
- Queensland Rail, (2008a), *Submission to the Rail Productivity Review Issues Paper*
- Queensland Rail, (2008b), *Our Mission*, Queensland Rail website, accessed December 2008, http://www.corporate.qr.com.au/about_qr/our_mission/mission.asp
- Queensland Transport (2001), *Rail Network Strategy for Queensland*
- Queensland Transport (2003), *Integrated Transport Planning Framework for Queensland*
- Rail Industry Safety and Standards Board (RISSB) Website, <http://www.rissb.com.au/linkdev/site/index.php>, accessed 23 January 2009
- Twentieth Super Pace Nominees Pty Ltd vs. Australian Rail Track Corporation Ltd, (2006), Available <http://www.austlii.edu.au/au/cases/vic/VSC/2006/500.html>
- Sd+D, (2009), *Grain Supply Chain Pilot Study, Stage 1 report*, unpublished
- Sydney Ports Corporation, (2008), *Submission to the Rail Productivity Review Issues Paper*
- Synergies, (2008), *The Costs of Rail Safety Regulation*
- Synergies, (2009), *Coal Supply Chain Pilot Study, Stage 1 report*, unpublished

Transport and Logistics Industry Skills Council, (2008), *Submission to the Rail Productivity Review Issues Paper*

Wills-Johnson, (2007a), *The Productivity of Australia's Railways in the 20th Century – Consequences for a growing, sustainable industry*, Working Paper Series 2007-03 July, Centre for Research in Applied Economics, School of Economics and Finance, Curtin Business School, Curtin University of Technology

Wills-Johnson, (2007b), *Economic Governance of Railways in a Federation*, Centre for Research in Applied Economics, School of Economics and Finance, Curtin Business School, Curtin University of Technology