Submission

National Transport Commission
Rail Productivity Review

Independent Transport Safety and Reliability Regulator

October 2008

Introduction

The Independent Transport Safety and Reliability Regulator (ITSRR) welcomes the review of national rail productivity issues by the National Transport Commission (NTC). It recognises the importance of this work and also welcomes an opportunity to provide a submission to the review.

ITSRR notes the potential synergies between this work by the NTC on rail productivity and a number of other tasks currently underway elsewhere. Among these tasks is the review of the *economic regulatory framework* for a very large segment of the rail industry in NSW – CityRail – by the Independent Pricing and Regulatory Tribunal (IPART). This IPART review is briefly discussed later in this submission. Another of these tasks is the further development of a National Transport Plan Framework, in particular the advancement of an *Economic framework for an efficient transportation marketplace.*[1]

Associated with the National Transport Plan Framework, the Australian Transport Council requested the NTC to prepare a regulatory impact statement for a single national rail safety regulatory and investigation framework.[2] ITSRR is assisting with this work.

This present submission

- Outlines the role and functions of ITSRR;
- Provides some background to the issues raised by the Commission;
- Offers comments on the some of thematic questions of the paper.

Role and functions of ITSRR

ITSRR is the NSW rail safety regulator. It is established under the *Transport Administration Act (1988)* and administers the *Rail Safety Act (1993).*

ITSRR does more than regulate rail safety. It also advises the NSW Government, and reports publicly, on matters associated with the *reliability* of transport in NSW. In this context *reliability* extends beyond punctuality and extends to the performance of transport especially in comparison with targets or benchmarks set by the NSW Government.

This *reliability* function attaches to NSW Government controlled railways and to public transport services.

The rationale for co-locating this *reliability* function with rail safety regulation was explained by the Minister in introducing the legislation under which ITSRR operates. Briefly it is that the safety of a railway is linked with its reliability.[3]

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[1] *Australian Transport Council Joint Communique, 29 February 2008*, Canberra at the Australian Transport Council website.

[2] *Australian Transport Ministers Meeting, Sydney, 25 July 2008, Record of Outcomes,* at the Australian Transport Council website.

[3] *Minister for Transport Services 2nd Reading Speech Transport Legislation Amendment (Safety and Reliability) Bill,* 29 October 2003, Hansard Legislative Council p.4305.

Background to the issues

The NTC has raised a large number of matters in its issues paper. In examining these it might be useful to consider some background to productivity, the rail industry, and the interaction of the industry with governments in Australia. This section of the submission does this.

Productivity

Productivity is generally understood to mean the ratio of inputs to outputs for a firm or for an industry. Frequently only one type of input is considered, for example *employee productivity* refers to the amount of output per employee. While the terms *productivity* and *efficiency* are often used interchangeably, the usual interpretation is that productivity is a necessary but not sufficient condition for efficiency.[4]

The evaluation of levels or changes in productivity requires an assessment of levels of inputs and outputs. There are challenges in estimating output levels across the rail industry. Among the reasons for this are the different facets of service outputs produced within the industry, the presence of subsidies in some industry segments, and the fact that rail is typically able to be only one link in a product (freight) supply chain or in a personal trip.[5]

Nonetheless, estimation of the likely productivity impacts of policy changes might be considered important by policy makers. Reasons for seeking some estimation, rather than relying wholly on theoretical propositions, are that some policy measures to increase in productivity may impose costs outside of the rail industry, for example on other elements of supply chains or through taxes to raise revenues. Another reason is that some other measures to increase productivity in part of the rail industry may impact adversely other parts of the industry, that is, some measures might shift costs.

Ex post evaluations of the impact of policy changes that were intended to increase productivity also are useful.

Rail industry

The NTC paper on rail productivity notes that the principal product segments of rail are freight services and passenger services. In these segments rail competes for and has a share of wider transport markets. Principal markets include transport of:

- Urban passengers;
- Minerals, such as coal or iron ore to export ports;
- Agricultural products, such as grains to export ports;
- Industrial products, such as steel between industrial centres;
- Intermodal containers between capital cities;
- Intermodal containers within cities eg. port related traffic;
- Passengers over long distances.

[4] See for example the discussion of productivity in Wikipedia.
[5] For example, financial estimates of output in the urban transport sector may not include value of capital employed if subsidy payments are not "grossed up".

For each of these markets, there may be optimal types of rail operations, trains and infrastructure. For example electric passenger trains, heavy axle load bulk commodity wagons, long container trains and freight shuttles.

In some of these segments rail faces strong competition from trucking, shipping and cars. Examples include urban passengers, intermodal containers and agricultural products over some length of the haul to export ports.

The NTC also notes that rail is capital intensive compared with road transport. This means that up to full capacity utilisation there are economies of scale, and potentially also of scope. An implication is that a key productivity issue is asset utilisation, particularly the utilisation of infrastructure assets.

As in any transport industry, rail's physical outputs entail facets of task size such as tonnes and passengers. Other facets include distance, speed, and punctuality. Quality issues such as passenger amenity and minimal freight loss are further aspects of outputs. It is necessary to make trade-offs among some of these facets, for example between speed and punctuality.

Much of the rail industry operates to a fixed timetable. As such, scheduling efficiency, for joint optimisation of train speeds with minimal delays, is likely to be a critical factor in a rail system's productivity.

In some markets, rail businesses would be unviable at current levels of output without injection of government finances. Governments provide finances to rail. Economists consider reasons for this provision to include correction of transport market imperfections arising from the generation of externalities from non-priced road transport.[6]

Rail operates on a commercial or business basis. That is, rail firms earn their revenue from contracts with their customers. This is the case for rail infrastructure businesses and in this respect the use and provision of rail infrastructure differs from roads. Rail also has a closer and more controlled connection between vehicle and infrastructure. Among the implications of these matters is the possibility of cost shifting among different classes of rail traffic or vehicle, and between the businesses operating trains and the businesses operating rail infrastructure.[7]

[6] Some aspects of externalities are discussed in IPART's review of the CityRail regulatory framework, in*: Determining CityRail's revenue requirement and how it should be funded, Discussion paper,* Independent Pricing and Regulatory Tribunal, June 2008.

[7] Another implication is that access agreements over rail infrastructure are subject to stamp duty as for the purpose of the duties legislation they are considered to be leases. See Asciano Services Pty Ltd v Chief Commissioner of State Revenue [2008] HCA 46 (25 September 2008)

While some parties may have views as to the opportunities or importance of improving productivity in a segment of the industry that serves a particular market, for example intermodal freight, sectoral productivity is a wider concept. This wider concept would take into account interactions of tasks, for example use of line segments by trains that serve different markets such as passenger and freight trains.

Relationship of rail to government

Government interacts with rail businesses in a number of respects. Important facets include:

- Ownership;
- Regulation;
- Contracts and financing.

ITSRR has an interest in regulation and contracts.

Rail regulation

Rail businesses are subject to various forms of regulation. Firms are subject to business laws including, at a national level, the *Trade Practices Act* (1974) which establishes regulation by the Australian Competition and Consumers Commission. Part of this regulation is the national access regime, which may apply to certain infrastructure facilities of national significance via a process of declaration by the National Competition Commission.[8]

Similarly, like other businesses, rail firms are subject to regulation regarding the environment, land use and occupational health and safety. Such regulation is administered at the State level.

There is some specific regulation of rail in many countries. In Australia this includes rail safety laws administered by rail safety regulators. These are State based.

In NSW, specific regulation also includes price (fare) setting oversight of CityRail by the Independent Pricing and Regulatory Tribunal.

[8] The application of the national access regime to parts of the rail industry has attracted some recent discussion following the High Court's decision: BHP Billiton Iron Ore Pty Ltd v National Competition Council [2008] HCA 45 (24 September 2008). There the High Court held*: "it does not follow from the fact that BHPBIO uses the relevant track and associated infrastructure as part of the production process of BHPBIO, that use by Fortescue (or another access seeker) of that track and infrastructure would be excluded from the definition of "service" as being "the use of a production process" and "the Application does not seek access with use of the rolling stock of BHPBIO or the addition of its stock to trains operated by BHPBIO in the course of the CSMS. That would present a possibly decisive distinction from what is contemplated by the Application."*

Finally, those rail firms owned by governments, rail government trading enterprises (GTEs), are subject to laws applying to the GTEs of the particular jurisdiction.[9]

Rail contracts and financing

The usual mechanism for providing government finance to, and securing CSOs from, a rail business is a contract administered by the relevant government department. Examples of contracts are the rail passenger franchise arrangements in Melbourne and the rail Community Service Obligations in Queensland.

Contracts are used in the case of both private and publicly owned rail businesses. In principle, the contracts used for GTEs might be the same as those for privately owned firms, to meet competitive neutrality conditions. In practice, there may be some differences between the contracts government departments have with private rail firms and those they have with GTEs.[10]

In the contract, the department specifies what it wishes to procure (on behalf of the community) and pays the rail business to provide it. Targets and benchmarks are set. Beyond these general principles, there are some differences in procurement arrangements among jurisdictions. ITSRR has researched Australian and (some) international practices of procurement for commuter rail, and will publish its results in the near future.

Sources of information on rail productivity issues

As noted earlier, there are some issues associated with the measurement of productivity in rail businesses. This is particularly the case for those rail businesses receiving government financing or subject to a CSO, which include most of the passenger rail systems in Australia.

Also rail sectoral productivity depends on the combined productivity of its constituent businesses. Yet this may not be the same as the productivity or profitability of a particular group of firms, due to competition and / or interactions. This suggests that it may be important to gain some understanding of overall sector productivity to assess proposed policy changes.

In the 1990s there were a number of major reviews and inquiries that examined the Australian rail industry.[11] The National Transport Commission's work offers a timely opportunity to update these, to consolidate recent and current reviews that deal with aspects of the industry or productivity, and to add new ideas.

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[9] In NSW the relevant legislation includes the *Transport Administration Act* (1988) and the *State Owned Corporations Act* (1990).

[10] There is a growing literature on optimal approaches for government contracts for rail service. For example, the Thredbo 10 Conference on Competition and Ownership in Land Passenger Transport examined risk and reward in public transport contracting including rail (Workshop 6c). ITSRR's research on international practices in commuter rail procurement (forthcoming) also looks at arrangements between government with private and publicly owned commuter railways.

[11] *Rail Transport* Industry Commission Inquiry Report 1991, *Tracking Australia,* House of Representatives Standing Committee on Communications, Transport and Microeconomic Reform 1998, *Revitalising Rail* (Commonwealth) Rail Projects Taskforce 1999 *Progress in Rail Reform*, Productivity Commission 2000.

Recent and current reviews

A number of recent and current inquiries and reviews have looked at aspects of Australian rail productivity issues. At the national and NSW level these include reviews undertaken by the Productivity Commission and by IPART. ITSRR is aware of reviews undertaken in other States, for example the Victorian Rail Freight Network Review, but these are not dealt with in this submission.[12]

Productivity Commission

The Productivity Commission's recent review of ***Road and Rail Freight Infrastructure Pricing*** is referred to in the NTC's National Transport Plan Framework.[13] In this report, the Commission argued that regulatory reform would have a more beneficial impact on rail performance than increases in road charges. Part of the reason proposed for this relates to the composition of the rail (freight) task. Export bulk commodities form a large part of the rail freight task and while in many cases do not face strong truck competition, their volumes might be sensitive to price changes.[14]

The Commission recognised initiatives to streamline safety regulation. It challenged the level of economic regulation of track access in markets where rail faces strong competition and argued that there should be an independent examination of whether those markets would benefit from vertical reintegration of rail, ie. track and trains operated by the one firm. The Commission further argued for stricter application of corporatisation principles to rail GTEs, including direct and transparent funding of CSOs with clearly specified objectives.

The Productivity Commission also has published a series of research papers on GTEs, covering those in the rail sector.[15] These papers show the reported ***financial performance of GTEs***. In many cases reported financial performance is affected by CSOs and by the level of finance provided by Government for their fulfilment.[16] One of the implications of the findings of these papers is that financial performance monitoring provides only an imperfect view of outputs and inputs, and therefore of efficiency and productivity under the current practices of specifying and financing CSOs.

IPART

The Independent Pricing and Regulatory Tribunal (IPART) in NSW has published a number of reports and papers which touch on productivity issues in rail. For the freight sector, IPART reviewed ***land interface arrangements for***

[12] *Victorian Rail Freight Network Review: "Switchpoint: The template for rail freight to revive and thrive!",* Department of Infrastructure, December 2007.
[13] *Road and Rail Freight Infrastructure Pricing*, Productivity Commission Inquiry Report, 2007.
[14] The Commission argued that both road and rail transport, being intermediate rather than final products, have relatively inelastic demand elasticities. Relevant factors including the generally very low proportion of transport to total costs, and price elasticities of final products. However, in some cases the proportion of transport to total costs is somewhat higher, and final product price elasticities are relatively high due to international competition – coal is assumed to be an example.
[15] *Financial Performance Monitoring of Government Trading Enterprises 2004-05 to 2006-07*, Productivity Commission Research Paper 2008.
[16] In particular that some CSOs are not fully financed by government, in the sense of government providing compensation for the financial aspects of the economic cost of producing the service eg. including returns on assets employed.

Port Botany.[17] IPART identified that overall economic efficiency would be increased by a greater use of rail to transport containers to / from Port Botany. It made a number of recommendations including government financing of new rail infrastructure and creation of a Port Botany Logistics Team modelled on the logistics team approach used for Hunter coal. IPART observed that while there appeared to be some willingness to invest in rail infrastructure there is a need for better coordination of investment decisions and day to day train operations. The NSW Government recently announced its response to the IPART review, accepting most of the recommendations.[18]

IPART also considers productivity matters in its ***determinations on CityRail fares***. ITSRR makes submissions to IPART in the fare determination process, and as discussed below, these submissions have raised matters related to productivity.[19]

At present IPART is conducting a review of the ***CityRail regulatory framework***. This is in response to a reference from the NSW Government asking IPART to recommend a new economic regulatory framework that will create better incentives for CityRail to provide passenger rail services at efficient cost levels. This economic regulatory framework is likely to be relevant for the rail industry for a number of reasons, not least of which is that CityRail accounts for a very large part of the rail industry in NSW. CityRail's train kilometres in 2006-07 were more than double the NSW train kilometres of all major freight operators combined.[20]

IPART published a draft report on CityRail fares and a draft report on improving CityRail's accountability and incentives in early October 2008. It had published a number of discussion papers earlier in the year.[21] Among the issues identified in the discussion papers and on which the draft reports are based are:

- Efficient levels of operating costs;
- Service requirements and service quality;
- Externalities arising from road use;
- Associating cost recovery from train users to externality estimates;
- Explicitly associating cost recovery with investment;
- Fare structures, including mode and distance based fares;
- Use of these mechanisms to seek to increase CityRail efficiency.

ITSRR published work

Part of ITSRR's reliability function involves putting into the public domain work on significant transport matters.

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[17] *Reforming Port Botany's links with inland transport Review of the interface between the Land Transport Industries and Stevedores at Port Botany, Final Report*, Independent Pricing and Regulatory Tribunal, March 2008.
[18] See: *Port Botany IPART Review* at the NSW Maritime Website.
[19] See for example: *Submission to the Independent Pricing and Regulatory Tribunal Hearings for Determination of CityRail Fares*, Independent Transport Safety and Reliability Regulator, August 2007, including its discussion about timetabling and performance indicators relating to efficiency.
[20] *2006-07 Annual Industry Reports*, Independent Transport Safety and Reliability Regulator November 2007, at Overview p5.
[21] Available at the IPART website.

Submissions

ITSRR provides submissions to fare determinations and other reviews conducted by IPART.

ITSRR's submission to the IPART review of Port Botany highlighted aspects of the interaction of freight and passenger trains in Sydney.[22] It stressed the importance of contractual matters for efficient use of the Metropolitan Rail Area by freight trains. It also noted that the transfer of ownership of part of the Metropolitan Rail Area would not of itself alter rail operations. A change in operations could require a change in train control procedures, but in any event publication and adherence to such procedures would assist productivity. In short, the rules of the game (setting and playing by them) are likely to be more important to productivity results than the names of the players.

Recent ***ITSRR submissions to fare determinations*** have touched on other aspects of rail productivity.[23] These include identification of aspects of service quality or outputs for urban railways being:- timetable, operational performance and amenity. The submissions also note timetabling efficiency matters such as the trade-off between transit time and punctuality, alignment of train operations with times of maximum passenger demand, and definitions of peak hours. There also is some discussion on the nature and meaning of particular indicators which are sometimes used in discussions about productivity.

Reports

ITSRR publishes a ***Transport Reliability Report*** each year that provides a round-up of transport performance in NSW public transport and NSW Government owned rail.[24] In previous years the Report has touched on aspects of rail productivity including asset management and adequacy and service outputs including operational performance indicators and delays. The Report for 2007-08 is to be published in the near future. Previous Reports look in some depth on the performance of RailCorp, the NSW Metropolitan Rail Area and the NSW Country Regional Network.

A further important annual ITSRR publication is its ***Survey of CityRail Customers.*** This survey looks at the views and experiences of CityRail customers and identifies the aspects of CityRail service they consider important and the aspects of CityRail service where their expectations are met and those aspects whether their expectations are not met.

[22] *Submission to the Independent Pricing and Regulatory Tribunal - Review of the interface between the land transport industries and the stevedores at Port Botany,* Independent Transport Safety and Reliability Regulator, January 2008.

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[23] *Submission to the Independent Pricing and Regulatory Tribunal Hearings for Determination of CityRail Fares* for 2006, 2007 Independent Transport Safety and Reliability Regulator.

[24] All ITSRR reports are available at the ITSRR website.

ITSRR also publishes other reports on matters regarding transport *reliability*. Of particular interest to this review of productivity is a report on aspects of the interaction of freight and passenger trains in the Metropolitan Rail Area; the 2006 report on ***freight incidents' impacts on CityRail***.[25] The reason for this interest is that a freight incident (a freight train that initiates a delay) affects the productivity not only of the train operator concerned but also of other network users if it causes their trains to be delayed.

The report dealt with incidents on the Metropolitan Rail Area network, which was not purpose built for freight. It found that while freight incidents had only a minor impact on aggregate CityRail delays, particular delays could be lengthy. The importance of minimising and managing incidents is likely to increase as traffic grows. The report considered mechanisms to seek to reduce or deal with incidents, noting a number of points. A key point is that railways operate as a system. Where there are multiple users / traffic, cooperation (especially at the operational level) offers the best chance for improving performance. A consequence is that measures aimed at (improving productivity via) reducing delays need to be assessed against criteria including whether they are likely to encourage or discourage cooperation in the industry. In this context the report noted some experiences with market type mechanisms (payments under track access contracts) for providing incentives to minimise delays. Nonetheless, it did recognise that there must be track access contracts wherever a number of train operators use the tracks.

Among the other findings of this freight incidents report were that some locations on the Metropolitan Rail Area had high numbers of freight incidents. An implication is that actions, including investments, may need to be tailored to specific situations.

A national framework to improve productivity

Introduction

The NTC's discussion paper posed a number of questions under headings:

- Government policy and intervention;
- Industry structure;
- Asset utilisation and management;
- Rail network;
- Business and operational systems;
- Interaction of rail with other transport modes.

The above sources of information on rail productivity issues offer many insights into these issues. ITSRR's overview comments, drawing from these sources, are provided below.

[25] *Impact of Freight Incidents on CityRail passenger service reliability, Final Report – Stage 2*, Independent Transport Safety and Reliability Regulator, February 2006

Discussion

Government policy and intervention

There are failures in markets that currently are (or potentially could be) served by rail. The extent and nature of these failures differ, and the relevant failures may occur in transport and not just rail. In some rail industry segments the task includes mitigation of externalities, while in other segments there may be issues related to market power. From an economic perspective this suggests that the optimal economic role of government might differ among the segments or tasks of the rail industry. Some types of market failures might also be relatively local, for example congestion of road traffic is likely to be highest in urban areas.

Questions have been raised in reviews about the effectiveness of infrastructure access regulation, the setting of CSOs and the provision of associated government finance.

In some respects there already is a national economic and regulatory framework for the rail industry. However this is not the case for all types of regulation. There are differences in the type of regulation applied to the sector across Australia, with the clearest examples being the setting of maximum rail fares, and application of infrastructure access regimes.

In principle there may be scope for a national framework to improve some aspects of productivity sector wide. One area of improvement may be where government financing is needed, including in relation to infrastructure modernisation and augmentation of fully utilised capacity.

However, beyond these financing matters the complexity of productivity in rail creates some potential issues, and in some cases there is a chance that gains in one area could be offset by losses elsewhere including outside of the industry. Careful design of any economic framework may be warranted, with that design including identification and estimation of the benefits and drawbacks of particular changes.

The Regulatory Impact Statement process being led by the NTC regarding a single national rail safety regulatory and investigation framework is an example of how these non-financial types of issues might be addressed. It is understood this process is to consider interactions among rail industry segments and between some rail segments and elements of the other transport industries. It also is understood that this process will consider mechanisms for achieving national regulation without losing responsiveness to localised issues.

Industry structure

The Productivity Commission reviewed the structure of the rail industry in the 1990s, and subsequently commented on some related matters.

An important consideration in discussion of any industry structure is its relation with government. For rail this may have even more importance given the evolution of much of the industry from organisations which were government agencies, because substantial government finance is provided both to rail industry and to its chief competitor, roads, and because of the influence of passenger rail systems on Australia's major cities.

Three aspects of government policy regarding rail industry structure are evident. First in some, but not all, cases government policy is for vertical separation of parts of the industry. This is implemented by government ownership of track authorities. Second, some State governments have a policy of open access to certain rail infrastructure. This is implemented by access regimes which do not require a declared right of access. Third, State governments provide subsidies and other financing to the rail industry including for the purpose of facilitating urban passenger transport. In most cases, urban passenger railways also are State GTEs. Commonwealth financing is less and to date has been focussed on interstate freight. Commonwealth financing is largely placed through the Australian Rail Track Corporation which is a Commonwealth GTE.

The relationship between passenger and freight use of networks would need to take into account governments' objectives. These objectives do not appear to be limited to the promotion of above-rail competition or to open access or freight, as some subsidies are provided for vertically integrated urban passenger railways.

The Productivity Commission's comments on the application of a commercial framework to GTEs may be relevant to passenger-freight relations. Equally its comments regarding subsidisation and vertical separation might be noted.

Apart from this, ITSRR's work on freight incidents highlights the importance of cooperation among organisations operating in a network that carries both passenger and freight trains.

Under the heading *Industry Structure* the NTC asked questions about the adequacy of information for investment. ITSRR's submissions to IPART and its *Transport Reliability Reports* have noted some deficiencies in railway data, particularly regarding transport demand.

Asset utilisation and management

ITSRR's published work discusses matters associated with asset utilisation and management in NSW. Matters covered include the limited capacity of the Metropolitan Rail Area network, the performance of metropolitan infrastructure and the association of that performance with capacity utilisation and infrastructure condition. Other matters covered include the CityRail fleet, the desirability and usefulness of track side devices, and the condition and outlook for the Country Regional Network in NSW.

This work shows that there are greatly different asset issues in the various rail markets and locations in NSW.

ITSRR also has noted that in 2005 a "slower" timetable with fewer services reduced the nominal capability of CityRail to move people. It has suggested that this needs to be compared with the increase in punctuality to understand underlying capacity utilisation issues. A method of making comparisons is the use of passenger valuations of travel time. These might be considered important for the current NTC review as they suggest that timetable efficiency is a key issue in rail productivity, particularly in a network which appears to be at or near capacity.

Under this heading *asset utilisation and management*, the NTC asked about whether some areas would benefit from national standards. It further asked what form such standards should take eg. regulation or voluntary industry codes. A fundamental consideration in this is understanding what is meant by the term *standards*. At present there are some process standards such as AS 4292. Beyond these, present engineering type standards are set by the firms operating in the industry (and through the Rail Industry Safety Standards Board, RISSB), rather than by regulation. The setting of some standards by regulation would be a substantial departure from existing arrangements and require detailed consideration. At the very least, a clearly articulated national policy on standards critical to efficient operations across networks is warranted. This could help to guide investment decisions for rail operations into the future.

Rail network

ITSRR does not generally monitor economic or financial viability. However, it is possible to draw inferences about the viability of some rail network segments from its published work.

The economic importance of rail segments increases when traffic rises. Reflecting this, the importance of CityRail, interstate and Hunter coal segments has increased substantially in recent years. It is likely that the economic viability of these segments has also been supported by increased traffic density (passengers or tonnes per route km).

In comparison, grain tonnages on rail have been low in recent years. Undoubtedly one of the principal factors behind this has been drought. Nonetheless, ITSRR has noted that the condition and transport capability of certain grain related rail assets has diminished. Reasons for this include the commercial strategies of participants in this logistics chain and that governments had not made final decisions on their arrangements with this sector of rail. The principal NSW issues in this regard concern the Restricted or R Lines and related fleet. Reduced tonnages on, and non-restoration of, these R Lines is likely to have reduced their economic viability.[26] Similar issues arise in other States, including in Victoria. The economic importance of the R Lines relates to avoidance of damage to local roads during large harvests. In recent years this importance has not been visible as harvests have failed.

[26] See for example: *Report on Road / Rail Options for Grain Logistics* Grain Infrastructure Advisory Committee, January 2004, available at the NSW Ministry of Transport website.

One of the issues raised by the NTC under the heading *rail network* related to breaks of track gauge. The reasons for this have been examined on a number of occasions, and the costs of achieving uniformity by changing pre-existing infrastructure would be high. However, the costs of achieving greater degrees of harmony or interoperability on matters other than gauge may be much less, yet offer potentially significant benefits, especially when new infrastructure or systems are to be introduced. An example may be Automatic Train Control / Protection systems. As noted above, a nationally agreed interoperability policy (if not standards themselves) is warranted.

A further issue raised under the heading *rail network* regards future transport demand. ITSRR has commented that forecasting demand is a fundamental issue for policy makers, and that such forecasts must be built on accurate and relevant data especially for urban transport regarding passengers. ITSRR also has commented that there appear to be some deficiencies in passenger data sets, and that this is not confined to rail.

Governments' ownership and substantial financing of rail GTEs suggests that they are critical stakeholders with potentially a major influence in progressing these issues.

Business and operational systems

Under existing (safety) regulatory arrangements, it is for the rail firms to select their systems and technologies. Most of the systems in place today were effectively introduced by the railways prior to the introduction of legislation establishing industry specific safety regulation. Examples of these include track gauges, radio systems and safeworking. Breaks of gauge and incompatibilities among these systems therefore are a legacy of the development of the railways and rail firms, rather than of (safety) regulation and regulators.

Some consideration is being given to 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.

Under *this business and operational systems* heading the NTC also included some questions regarding key performance indicators. Generally, the monitoring and evaluation of the performance of a firm is considered to be a matter for that firm and its owners.

However, this general view may need to be modified when government is involved in a sector. For example, if government provides finances to a sector, the community will be a stakeholder in the CSO that the finances purchase. In such a case, information about certain aspects of CSO performance may also need to be reported to government. ITSRR's forthcoming paper on commuter rail procurement notes that best practice in monitoring extends beyond ascertaining whether the CSO is being delivered. Rather, Government also needs information to develop more general transport policy and to understand the likelihood and cost of ensuring that the CSO can be delivered into the future.

Interaction of rail with other transport modes

Interaction of modes is a recognised issue in urban passenger transport. The Australian Transport Councils' work on an *economic framework* for transport is relevant. Also relevant would be IPART's views on the *economic regulatory framework* for CityRail, even though its terms of reference are at present limited to rail only.[27] The general topic of interaction raised by the NTC under this heading might generate questions about the application of any principles applied to CityRail to other transport modes.

Under this heading *interaction of rail with other transport modes*, the NTC has raised issues regarding the supply chain and intermodal terminals. IPART's discussion of the Port Botany land transport interface is useful in considering these types of issues. On the question of vertical integration, the Productivity Commission's comments in *Progress in Rail Reform* might be noted.

Summary and conclusion

The National Transport Commission's work on rail productivity provides an opportunity to update the 1990s reports on the issue, consolidate recent reviews on aspects of productivity, and to add new ideas. This would appear timely given ATC Minister's desire to further develop a National Transport Plan Framework including an economic framework for an efficient transportation marketplace.

ITSRR's interests in the issues stem from its position as rail safety regulator in NSW, and as an advisor to the Government on *reliability* of certain rail segments with duties to publicly report on some of these issues.

[27] The Minister for Transport had announced that the terms of reference would be expanded to cover a new electronic ticketing system for all transport modes in Sydney, but at the time of writing IPART had not received revised terms of reference. *New electronic ticketing to streamline public transport,* News Release, Deputy Premier, Minister for Transport and Minister for Finance 29 August 2008.

Productivity in rail raises complex issues including the differences among industry activities, interactions among trains, valuation of various industry segment outputs, benefits that extend beyond rail, the presence of government finance in both rail and road and possibilities of cost shifting within supply chains.

NTC has identified a number of themes regarding rail productivity. Recent and current reviews on rail productivity issues including by the Productivity Commission and by the Independent Pricing and Regulatory Tribunal, address some of these issues. ITSRR has published some work that also deals with aspects of rail productivity identified by NTC. Importantly, the reviews cited in this submission confirm that the productivity agenda for rail extends beyond regulatory reform.

Given these matters, reforms (particularly beyond financing) may need to be carefully designed, with attention paid to identification and estimation of the benefits and drawbacks. The Regulatory Impact Statement process being led by the NTC regarding a single national rail safety regulatory and investigation framework might provide an example of how non-financial issues might be addressed.