IPART
New South Wales

Independent Pricing and Regulatory Tribunal

Review of the CityRail regulatory framework

Transport — Issues Paper
October 2007

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Invitation for submissions

IPART invites written comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by 29 February 2008.

We would prefer to receive them by email <transport@ipart.nsw.gov.au>.

You can also send comments by fax to (02) 9290 2061, or by mail to:

Review of CityRail Regulation
Independent Pricing and Regulatory Tribunal
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Our normal practice is to make submissions publicly available on our website <www.ipart.nsw.gov.au>. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed on the previous page.

We may choose not to publish a submission — for example, if it contains confidential or commercially sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please indicate this clearly at the time of making the submission. IPART will make every effort to protect that information but it could be subject to appeal under freedom of information legislation.

If you would like further information on making a submission, IPART's submission policy is available on our website.

Contents

1 Introduction

CityRail provides passenger rail services within the Greater Sydney region. The Independent Pricing and Regulatory Tribunal of NSW (IPART) regulates the fares CityRail can charge its customers for these services. IPART considers that it is time to implement a more comprehensive and robust regulatory framework.

In response to this concern, the NSW Government has asked IPART to undertake a review and recommend a regulatory framework that will provide CityRail with better incentives to provide passenger rail services at efficient cost levels. (See Appendix 1 for the terms of reference.)

IPART has completed its 2007 fare review and determined that fares will increase by a weighted average of 5.9 per cent from 11 November 2007. In making this decision, IPART considered the same key issues to those set out in this issues paper, namely: cost and cost efficiency, cost sharing between the government and users, service standards and the appropriate fares. The 2007 fare decision will be taken into account when IPART determines the appropriate fares arising from its regulatory framework review, in particular any decisions on the price path for CityRail fares over the coming years.

1.1 Purpose of the review

IPART considers that the regulation of CityRail should provide incentives for provision of an economically efficient level of regulated passenger services. This objective is not being satisfactorily met under the existing regulatory framework. One of the main reasons for this is that, unlike monopolists in other regulated industries (such as electricity or water) CityRail does not generate sufficient revenue to recover the cost of providing its services. This makes it more difficult for IPART to create incentives for CityRail to improve its economic efficiency.

In CityRail's circumstances, fare regulation is likely to have two main objectives:

- Establish the appropriate allocation of costs between the government and users and ensuring that CityRail has sufficient revenue (including government contributions) to meet the cost of providing its services. This is complicated because both users and taxpayers contribute to providing CityRail's revenue. Fare regulation should ensure that each group provides its fair share. Over the last few years, the trend has been for users to contribute less and taxpayers to pay more.

- Establish CityRail's efficient level of costs and encourage CityRail to increase its efficiency. Users should not be asked to fund inefficient costs. Therefore, regulation should provide incentives for CityRail to increase its efficiency so as to reduce costs for the benefit of both users and taxpayers. Achieving improvements in cost efficiency will help achieve the first objective.

IPART considers that CityRail's regulatory framework should provide it with the best incentives to improve its efficiency and deliver its services to the appropriate standards. The framework should reward CityRail for making improvements in cost efficiency or service standards. Consistent with good regulatory practice, the framework should not unnecessarily constrain managerial autonomy.

One way to provide incentives could be to provide more information about CityRail's operations and funding arrangements, thereby placing greater emphasis on costs. In particular, the regulatory framework could improve information regarding:

- the efficient costs of providing CityRail's services
- the net social benefits of these services (for example, providing greater mobility for people unable to travel by other transport modes, and reducing road congestion and greenhouse gas emissions).

Better information could increase stakeholder confidence in IPART's decisions and allow CityRail and other stakeholders to have more certainty about fare outcomes. It would also enable CityRail to better manage its future operational needs.

It is also important to ensure that CityRail is held accountable for its performance. Improvements in the regulatory framework can be reinforced by and will help to improve RailCorp's Statement of Corporate Intent (SCI) by providing clearer targets and benchmarks for managers to achieve. However, changing the regulatory framework to provide improved incentives will not be effective if cost over-runs and inefficiencies are met by ever increasing government subsidies.

1.2 Process for the review

As part of this review, IPART will undertake public consultation. As part of this consultation, it invites all interested parties to make submissions to the review. It will also hold a public roundtable discussion, to provide stakeholders with a further opportunity to contribute their views. In addition, it will engage consultants to assist it in estimating the efficient costs of providing CityRail's services, the allocation of costs between government and users, and fare elasticities.

IPART intends to release a draft report and recommendations and invite comments from interested parties. After considering these comments, it will provide its final report and fare determination to the Premier.

The proposed timetable for the review is provided on Table 1.1.

Table 1.1 Timetable for review

Action	Timetable
Release issues paper and invite submissions	October 2007
RailCorp response to the issues paper due	30 January 2008
Public submissions on issues paper and RailCorp's response close	29 February 2008
Make consultant's draft reports available for public comment	February/March 2008
Hold public roundtable discussion	April 2008
Release draft report and recommendations and invite submissions	July 2008
Provide final report and fare determination to the Premier	October/November 2008

This issues paper is the commencement of the public consultation process and IPART is asking for RailCorp's response to the issues raised by 30 January 2007. IPART is calling for stakeholder submissions on both its issues paper and RailCorp's response by **29 February 2008**. To make it easier for stakeholders to respond, IPART is requesting that submissions cover both the IPART's issues paper and RailCorp's response. Details on how to make a submission can be found at the front of this paper (before the Table of Contents).

1.3 Purpose and structure of this issues paper

This issues paper is intended to assist stakeholders in making submissions to the review by identifying and explaining the key issues IPART will consider in the review. It is structured as follows:

- Chapter 2 sets out the approach IPART will use to conduct the review and decide on the regulatory framework it will recommend to the Premier
- Chapter 3 outlines the broad context in which CityRail fares are regulated, including the NSW Government's policies on public transport and other matters
- Chapter 4 discusses CityRail's current cost structure and cost efficiency
- Chapter 5 discusses CityRail's current service standards and how incentives for improving these standards might be incorporated into the regulatory framework
- Chapter 6 looks at how costs are shared between the government and users, and the net social benefits CityRail's services provide
- Chapter 7 sets out the options for a new regulatory framework for CityRail
- Chapter 8 discusses the levels and structure of CityRail fares.

Each of these chapters highlights one or more questions on which IPART particularly seeks stakeholder comment. For convenience, a complete list of these questions is also provided in section 1.4, below. However, please note that the list is not exhaustive and stakeholders are free to raise and discuss any other issues they consider relevant to this review.

1.4 List of issues on which IPART seeks comment on

1 Given the terms of reference, are the following proposed assessment criteria reasonable and balanced? What is the relative importance of each criterion?
   - Provides CityRail with the discipline to provide efficient passenger rail services
   - Reduces the costs and improves the quality, reliability and safety of passenger rail services for the benefit of consumers and taxpayers
   - Promotes economic efficiency of rail services
   - Consistent with government policy objectives
   - Targeted to and proportionate with the problem
   - Promotes clear and appropriate accountabilities
   - Increases transparency of decisions
   - Consistent
   - Practical, pragmatic and feasible
   - Simple and understandable

2 Are there any other assessment criteria that IPART should consider?

3 While the regulatory arrangements are different in Victoria, do stakeholders see some benefits in replicating features of the Victorian approach for CityRail? If so which are the features which should be included?

4 How should the NSW Government's public transport policies be reflected in the regulatory framework? For example, under what circumstances should the cost of its public transport policies be fully reflected in fares?

5 Should IPART distinguish between CityRail's suburban, intercity and regional networks and services in setting fares?

6 What indicators of service standards would most effectively reflect the experience of CityRail customers?

7 Is there a useful single indicator of service standards?

8 What relative weights should be given to measures of operational performance (reliability and punctuality), timetable (quantity of timetabled services) and amenity (crowding, comfort, safety, information etc)?

9 How could the current measure of on-time running be improved?

10 How can CityRail's service performance be incorporated into the regulatory approach and fare decisions?

11 To the extent that passengers advocate higher service standards, would they be prepared to accept higher fares for improved service?

12 What is an appropriate framework for determining the share of CityRail's costs between users and the government?

13 Has IPART identified the main social benefits and social costs (that is, externalities) associated with the provision of CityRail's services?

14 How can the social costs and benefits be quantified and what is their likely magnitude?

15 Has the magnitude of social costs and benefits changed over the last ten years?

16 What is the best way to address these social costs and benefits? To what extent do they provide justification for the government to share some of the costs of CityRail's regular passenger services? Alternatively, should more attention be given to other approaches to increasing rail patronage and capturing the net social benefits of rail, such as increased rail service quality and frequency?

17 If a 'line in the sand' approach were adopted by IPART what considerations should influence where the 'line' is drawn?

18 Which approach to fare determination is more appropriate for the regulation of CityRail? Do stakeholders have any other approaches which they consider to be viable alternatives?

19 If a building block approach was adopted how should the RAB be set?

20 What is the appropriate rate of return for CityRail's capital investments?

21 If an operating cost approach was adopted, would stakeholders prefer yearly review based on a fixed formula or longer fare determinations and regulatory periods based on more detailed analysis of CityRail's specific costs?

22 Are there alternative regulatory approaches that could meet IPART's assessment criteria more effectively?

23 Are there any reasons why IPART should use a methodology other than setting individual fares? If so, should IPART determine a weighted average price cap and allow CityRail to set its own fares for individual tickets? Or are there other methodologies for fixing maximum fares that IPART should consider?

24 What is the appropriate regulatory period: three or five years?

25 Over what time period should IPART transition CityRail to the new regulatory framework?

26 Which fare structure or mix of fare structures is most appropriate for CityRail?

27 What is the appropriate difference between peak and off-peak fares?

28 Should IPART consider demand management (that is, encourage patronage to be spread more evenly throughout the day) when determining fares?

29 What other factors should be reflected in differences between peak and off-peak fares?

2 IPART's approach

IPART has designed an approach for this review that it considers will enable it to analyse the range of issues relevant to the regulation of CityRail fares in a way that is transparent, feasible, and consistent with good regulatory practice, and will deliver pragmatic recommendations. This approach:

- explicitly considers each of the factors the terms of reference require IPART to consider
- builds on IPART's experience in price regulation and other reviews
- uses assessment criteria to facilitate transparency and consistency of decisions.

The following sections explain the approach in detail. Section 2.1 provides an overview of the approach. Section 2.2 explains how IPART will consider the factors set out in the terms of reference, and how the analysis of each factor will be used to inform its recommendations. Section 2.3 sets out the assessment criteria IPART proposes to use to guide its decision making in the review, and explains its interpretation of each criterion in the context of this review.

2.1 Overview of approach

The terms of reference ask IPART to recommend a regulatory framework that:

- provides CityRail with incentives to provide efficient passenger rail services
- reduces the cost and improves the quality, reliability and safety of passenger rail services for the benefit of consumers and taxpayers.

IPART considers that these objectives need to be considered in the context of an understanding of CityRail's operations, cost drivers and constraints, a realistic appreciation of the ways in which regulation can affect CityRail's efficiency and services, and a knowledge of the costs associated with regulation.

Therefore, IPART's approach initially requires gathering information on CityRail's operations and developing a comprehensive understanding of its customers. IPART will use this information as input to the development of regulatory options (see Figure 2.1). The issues paper provides preliminary analysis of several key factors:

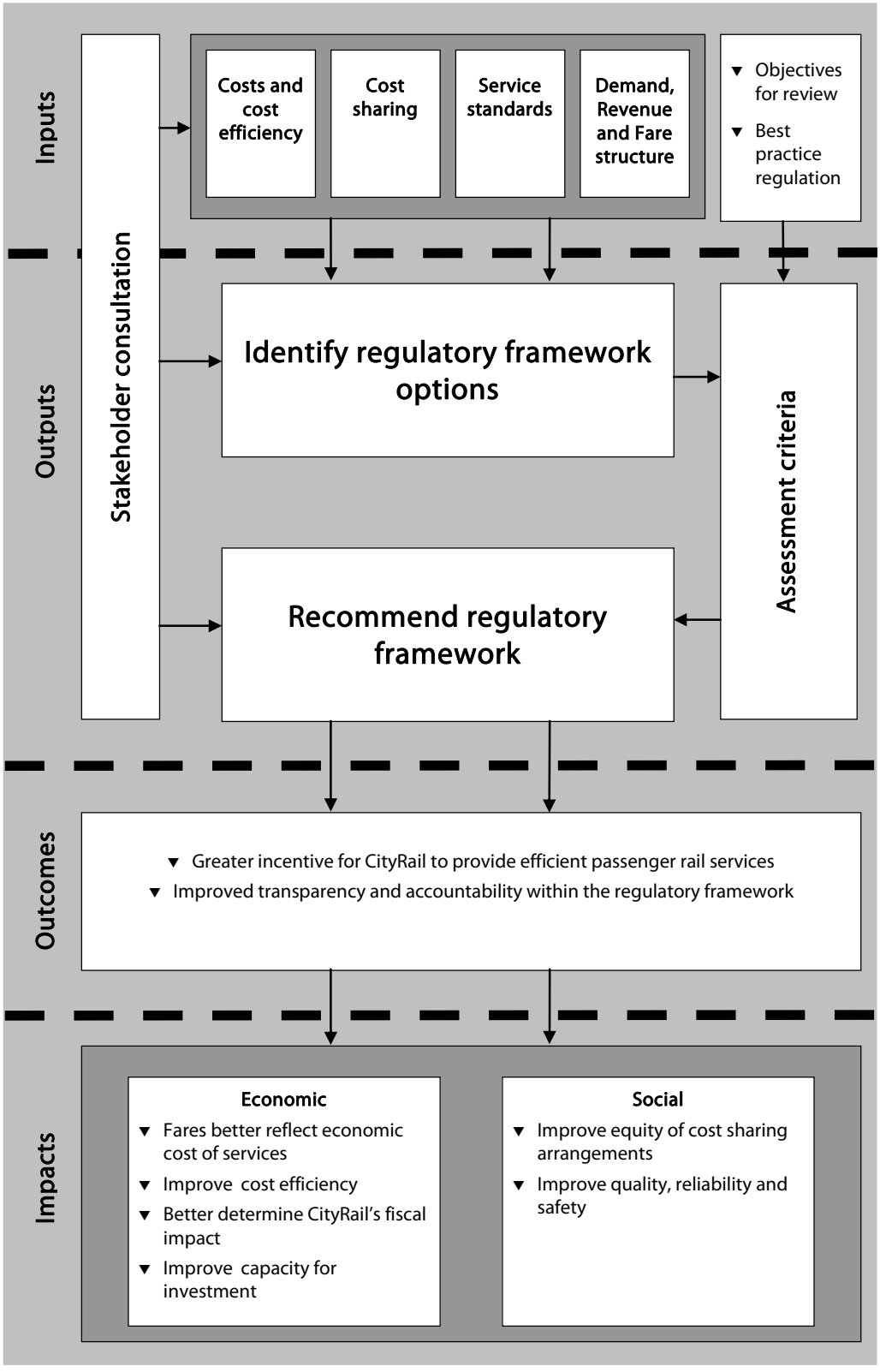
- costs and cost efficiency
- service standards
- cost sharing and net social benefits

- fare structure.

IPART, often with the assistance of industry experts, will continue to analyse these and other factors to develop a comprehensive understanding of CityRail's users and its operating environment. IPART will then use these inputs to develop, explore and assess options for alternative regulatory frameworks.

IPART will use assessment criteria based on best practice regulatory principles and the requirements outlined in its terms of reference to inform its recommendations on the regulatory framework. Proposed assessment criteria are set out in section 2.3 below. IPART believes that the process of applying assessment criteria in this way will help all stakeholders to understand the basis for its recommendations while also helping to ensure the recommendations are internally consistent.

Figure 2.1 Mapping the development of the regulatory framework — Inputs to impacts



Source: IPART.

2.2 How IPART will consider the factors listed in the terms of reference

The terms of reference indicate that IPART must consider section 15 of the IPART Act as well as a list of seven specific factors in its review. These factors and how IPART intends to consider them in developing its recommendations on the regulatory framework for CityRail are set out below:

1. **NSW Government policy on passenger rail services and public transport, including the future investment in CityRail set out in the *Urban Transport Statement* and the *State Plan.*** In the case of public transport services, government policy can be an important driver of costs that are not directly related to individual passenger services but provide broader public benefits. IPART proposes to identify the government polices that explicitly affect CityRail services and costs. This analysis will inform its recommendations on the way government policy is incorporated in the regulatory framework and on how costs should be apportioned between government and users.
2. **The efficient costs of providing CityRail's services and the scope for greater efficiency in the supply of its services**. IPART will assess CityRail's current costs to:
   - identify the potential for cost savings, both generally and in specific areas
   - distinguish between the drivers of efficient costs, including identifying the efficient costs of delivering specific government policy outcomes.

   This analysis will enable IPART to consider the combination of regulatory and non-regulatory tools that could be used to directly and indirectly affect the efficiency of CityRail's service delivery. The *implementation* of the regulatory framework will ultimately require IPART to form a view on the efficient costs.
3. **The incorporation of service standards into the regulatory framework.** Implicitly, if you regulate the price of a service you also need to regulated the standard of that service—otherwise the service provider might have incentives to reduce costs by lowering service standards. IPART will assess CityRail's current service standards as part of its work on identifying regulatory and non-regulatory approaches that could potentially be used to address CityRail's identified problems.
4. **The allocation of costs between government and users, taking into account the net benefits to the community of CityRail's services.** In determining regulated prices for monopoly businesses, IPART generally seeks to ensure that prices are fully cost reflective and that prices recover the total costs associated with the service. However, there are social costs and benefits associated with public transport services, and it is generally accepted that a portion of the costs of public rail services should be funded by government. IPART has considered this issue in other industries (for example, bulk water). IPART will assess how costs should be allocated between government and users in any regulatory frameworks that it considers.

A complicating issue within the CityRail context arises where NSW Government policy directly impacts on CityRail's costs. IPART will need to assess who benefits from such government imposed obligations. If the obligations benefit users then it may be reasonable for users to pay for the costs. If the obligations provide benefits for the wider community, it may be appropriate for taxpayers to contribute to the costs. While costs that do not provide commensurate benefits either to users or the wider community should be borne by the shareholder (that is, the government).

5. **The appropriate regulatory period for fare decisions.** The issue of the regulatory term for a pricing decision arises in most regulated industries and is function of the status of the industry, the broader environment and the degree of development of the regulatory regime. IPART will consider the appropriate regulatory period as part of its assessment of options for alternative regulatory frameworks.
6. **The arrangements, if necessary, for transitioning to the new regulatory framework.** To the extent that IPART's recommendations involve significant or stepwise change from the current arrangements, IPART proposes to identify options for transition. This could involve exploring the timeframe for any transition and potential glide paths for prices.
7. **Appropriate fares for CityRail services.** IPART recognise that fare levels and structures should have regard to:
   - Government policy objectives
   - the need to provide appropriate signals to customers about the costs of providing services
   - social impacts; equity between users versus non-users and affordability.

   IPART proposes to consider the level of fares subsequent to work on the efficient costs and the allocation of costs between the government and users.

IPART will also consider a range of matters related to good regulatory practice in addition to the factors outlined in the terms of reference. For example, the principles of good regulation require that the regulatory framework is practical, well-targeted and proportionate to the identified problem. The regulatory framework should also contribute to providing:

- accountability
- transparency
- consistency
- simplicity.

In addition, IPART recognises that regulation imposes costs on regulated businesses and the regulator, as well as on society as a whole through the potential for errors and induced inefficiencies. IPART considers that any proposed regulatory framework should seek to minimise these costs.

2.3 Proposed assessment criteria for the review

IPART has developed a set of assessment criteria, shown on Table 2.1, which it proposes to use to support its analysis and guide its decision-making in the review. IPART will assess the various options for regulatory approaches to identify the approach that best meets the criteria.

Table 2.1 Proposed assessment criteria for approach, analysis and recommendations

	Assessment criteria	Comments & interpretation
Review terms of reference	Provides CityRail with greater discipline to provide efficient passenger rail services	This criterion relates to the extent to which options or approaches encourage CityRail to be more disciplined in its spending, for example, by: ▾ increasing the transparency of costs, including policy-related costs ▾ providing greater accountability for costs and service decisions ▾ providing incentives or penalties for CityRail to increase efficiency.
	Reduces the costs and improves the quality, reliability and safety of passenger rail services for the benefit of consumers and taxpayers	This criterion introduces the concept of an appropriate level of service from a consumer perspective and the trade-offs between costs and service levels.
	Promotes economic efficiency of rail services	Factors that would be considered in assessing against this criterion include the extent to which the options or approaches: ▾ promote the supply of services at least cost ▾ facilitate sound investment decisions ▾ provide economic pricing signals so that fare outcomes take account of the cost of providing CityRail's services.
	Consistent with government policy objectives	This criterion includes considering whether the options or approaches: ▾ are consistent with increasing patronage ▾ take account of the social impact of decisions ▾ are consistent with, or take account of government policy on public transport fares.
Good regulation	Targeted to and proportionate with the problem	This criterion includes considering whether the options or approaches are targeted to the problems or gaps identified.
	Promotes clear and appropriate accountabilities	Accountabilities should align with information and capabilities, so that decisions are made by parties in the best position to make those decisions.
	Increases transparency of decisions	This criterion includes providing more information about: ▾ government policy decisions ▾ budget allocation decision ▾ service standards.
	Consistent	The recommended regulatory framework should be internally consistent and reflect consistent assessment of issues.
	Practical, pragmatic and feasible	
	Simple and understandable	

The assessment criteria are designed to support IPART's analysis and to facilitate its decision-making during the review. IPART developed these assessment criteria to reflect: the terms of reference (see Table 2.2); its requirements under section 15 of the IPART Act; and principles of good regulation (see for example, IPART 2006, *Investigation into the Burden of Regulation in NSW and Improving Regulatory Efficiency*).

Table 2.2 Mapping how the terms of reference for the review are reflected in the assessment criteria

	Provides CityRail with greater discipline to provide efficient passenger rail services	Reduces the costs and improves the quality, reliability and safety of passenger rail services for the benefit of consumers and taxpayers	Promotes economic efficiency of rail services	Consistent with government policy objectives
NSW Government policy on passenger rail services and public transport				✓
The efficient costs of providing CityRail's services and the scope for greater efficiency in the supply of its services	✓	✓		
The incorporation of service standards into the regulatory framework		✓		
The allocation of costs between government and users, taking into account the net benefits to the community of CityRail's services			✓	✓
The appropriate regulatory period for fare decisions	✓		✓	
The arrangements, if necessary, for transitioning to the new regulatory framework	✓		✓	
Appropriate fares for CityRail services		✓	✓	

Source: IPART.

IPART seeks comment on the following:

1 Given the terms of reference, are the following proposed assessment criteria reasonable and balanced? What is the relative importance of each criterion?

- Provides CityRail with the discipline to provide efficient passenger rail services.
- Reduces the costs and improves the quality, reliability and safety of passenger rail services for the benefit of consumers and taxpayers.
- Promotes economic efficiency of rail services.
- Consistent with government policy objectives.
- Targeted to and proportionate with the problem.
- Promotes clear and appropriate accountabilities.
- Increases transparency of decisions.
- Consistent.
- Practical, pragmatic and feasible.
- Simple and understandable.

2 Are there any other assessment criteria that IPART should consider?

3 CityRail's regulatory and policy context

CityRail provides passenger rail services within the Greater Sydney region. Because it is a state-owned, monopoly provider of these services, IPART regulates the maximum fares it can charge for its services. In addition, the Independent Transport Safety and Reliability Regulator (ITSRR) and several government agencies influence CityRail's operations through regulation or the implementation of government policy. For example, the recently formed Public Transport Ticketing Corporation — a NSW Government agency — is managing the development of an integrated ticketing system (Tcard), which will eventually be introduced on CityRail services and across other public transport providers in Sydney.

The sections below describe the broad regulatory and policy context that needs to be taken into account in developing a regulatory framework for CityRail. Section 3.1 outlines CityRail's legislative framework. Section 3.2 describes CityRail's relationship to other government agencies, including IPART. Section 3.3 discusses NSW Government policy that relates to CityRail. Section 3.4 explains how IPART's review relates to the broader regulatory framework governing CityRail.

3.1 CityRail's legislative framework

CityRail is a division of RailCorp, which was established by the NSW Government as a Statutory State Owned Corporation (SSOC). RailCorp's legislated objectives indicate that the corporation should provide safe and reliable services 'in an efficient, effective and financially responsible manner' and 'at least as efficiently as any comparable business' (see Box 3.1). The SSOC framework provides RailCorp with a corporate structure that is designed to allow it to manage its day-to-day operations independently of the government with its strategic decisions made in consultation with the government.

Box 3.1 Legislative background

RailCorp was formed on 1 January 2004 under the *Transport Administration Act 1988* (TAA). It is defined as a SSOC under Schedule 5 of the *State Owned Corporations Act 1989* (SOCA). RailCorp's principles objectives under section 5 of the TAA are:

- to deliver safe and reliable railway passenger services in New South Wales in an efficient, effective and financially responsible manner, and
- to ensure that the part of the NSW rail network vested in or owned by RailCorp enables safe and reliable railway passenger and freight services to be provided in an efficient, effective and financially responsible manner.

The TAA also identifies other objectives for RailCorp, which are:

- to maintain reasonable priority and certainty of access for railway passenger services
- to promote and facilitate access to the part of the NSW rail network vested in or owned by RailCorp
- to be a successful business and, to this end:
  - to operate at least as efficiently as any comparable business, and
  - to maximise the net worth of the State's investment in the State owned corporation
- to exhibit a sense of social responsibility by having regard to the interests of the community in which it operates
- where its activities affect the environment, to conduct its operations in compliance with principles of ecologically sustainable development contained in section 6(2) of the *Protection of the Environment Administration Act 1991*, and
- to exhibit a sense of responsibility towards regional development and decentralisation in the way it which it operates.

The principle objectives are given more importance than RailCorp's other objectives. Section 20E of the SOCA, which outlines the principle objectives of SSOCs, does not apply to RailCorp.

RailCorp's performance targets are set out each year in its Statement of Corporate Intent (SCI) [1] and the Rail Performance Agreement. The SCI is an agreement between RailCorp and its voting shareholders. It is intended to be 'the primary instrument guiding the financial and management accountabilities of RailCorp'.[2] It must include:

- performance benchmarks for RailCorp's rail services and rail infrastructure agreed to by the board and the portfolio Minister (also known as the Rail performance agreement)
- financial and other performance benchmarks agreed to by the board and the voting shareholders, in consultation with the portfolio Minister.

Section 3.4 below explains how IPART's review could enhance the broader regulatory framework governing CityRail. For example, by making more transparent the efficient cost of providing CityRail's services and the appropriate allocation of costs between the government and users, additional information will be provided. This information will assist in negotiating the SCI and will also enable the SCI to focus on a longer time period rather than the current yearly focus. This may provide a more effective means for the government to explicitly set service and performance standards for CityRail, which it could then enforce through financial rewards or penalties. In Melbourne, the Victorian Government has an agreement on service and performance standards with its private-sector rail operator (Connex)

1 See Appendix E.

2 Second reading of the *Transport Administration Amendment (Rail Agencies) Bill* by The Hon. Michael Costa on 12 November 2003.

despite using a different regulatory model (that is, the purchaser-provider model). An overview of Melbourne's regulatory arrangements is provided in Box 3.2.

Box 3.2 Overview of Melbourne's regulatory arrangements for passenger rail

In the late 1990s, the Victorian Government decided to contract the private sector to operate and maintain the train and tram system. Since April 2004 Connex Melbourne Pty Ltd (Connex) has been responsible for operating train services as well as maintaining the above rail (rolling-stock etc) and below rail (tracks, signalling and other infrastructure) elements of the rail system.

The Partnership Agreement in which Connex as service provider is contracted to provide metropolitan rail services (in exchange for government payments) sets out:

- the level of service to be provided such as the minimum number of trips to be provided, levels of crowding on trains, requirements for cleanliness and station security and minimum staffing arrangements
- payments between the government and Connex, including the costs of operating and maintaining the system
- the incentive framework for performance
- the allocation of risk under the arrangement.

The Victorian Government retains ownership over the majority of assets (through VicTrack) and is responsible for paying operators to run the day-to-day services (the purchaser of rail services), monitoring performance in line with the partnership agreement, regulating fares and safety, and ensuring long terms planning of the network.

IPART notes that the agreement between the Victorian Government and Connex provides for:

- transparency in terms of the level of service to be provided and the drivers of operating costs
- accountability in terms of government knowing what it is 'purchasing' and commuters knowing the level of service they should expect
- discipline on government by clearly identifying government policy and the associated costs of this policy
- efficiency in service provision in terms of Connex being provided with incentives to reduce inefficiencies
- reducing the fiscal impact on government in terms of deficit funding
- improving service performance by reducing train delays and cancellations

Appendix D provides more detail on Melbourne's regulatory framework. IPART recognises that some aspects of rail operations may make it difficult to compare it to other metropolitan rail networks. However given the significant disparity between Sydney and Melbourne in terms of the level of costs required to operate and maintain the rail system, and the subsequent level of Government deficit funding, IPART considers that some aspects of Melbourne's regulatory framework requires further investigation.

Despite the difference in regulatory approaches, IPART considers that there are several lessons from Melbourne's recent regulatory experience that may lead to improvements in CityRail's regulatory framework (see Box 3.2 and Appendix D). For example, having a clear understanding of the level of service that CityRail is required to provide will better indicate the extent to which this drives CityRail's costs. In addition, it will provide greater transparency to government (and taxpayers) regarding the level of service they are 'purchasing' and improve commuter awareness as to the level of service they should expect.

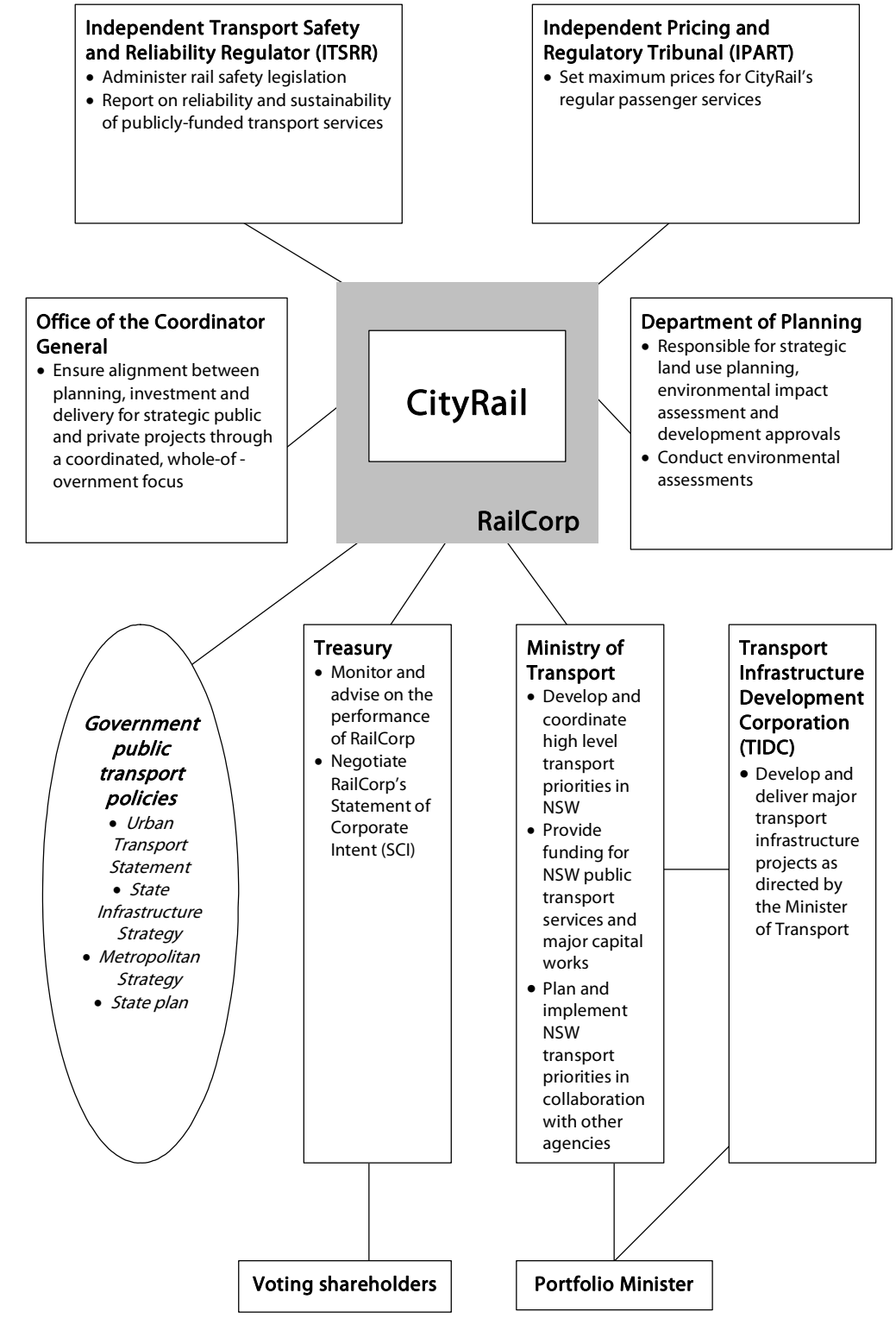
IPART seeks comment on the following:

3 While the regulatory arrangements are different in Victoria, do stakeholders see some benefits in replicating features of the Victorian approach for CityRail? If so which are the features which should be included?

3.2 CityRail's relationship to other government agencies

A relatively large number of government agencies affect CityRail's operating environment (see Figure 3.1). Understanding the role of these government agencies and their impact on CityRail's operations will help to improve the effectiveness of any incentive-based regulatory framework considered by IPART.

Figure 3.1 Government agencies and policies that impact on CityRail's operations



Source: IPART.

The government has declared CityRail's regular passenger services to be a government monopoly service.[3] As such, IPART currently reviews CityRail's fares annually, using its powers under Section 11(1) of the *Independent Pricing and Regulatory Tribunal Act 1992* (IPART Act). IPART's role is to determine maximum fares for CityRail's services. In fulfilling this role, IPART is required to consider the matters outlined in Section 15 of the IPART Act (see Box 3.3). Any alternative regulatory framework will need to adequately address all these matters.

Box 3.3 Matters considered by IPART in determining CityRail's fares

Section 15 of the IPART Act indicates the matters that IPART must consider in making its determination.[4] These matters relate to:

- **Consumer protection** — protecting consumers from abuses of monopoly power; standards of quality, reliability and safety of the services concerned; effect on inflation.
- **Equity** — equity between users and non-users; social impact of decisions.
- **Economic efficiency** — encouraging greater efficiency in the supply of services; the need to promote competition; effect of functions being carried out by another body.
- **Financial viability** — cost of providing the services; ensuring an appropriate rate of return on public sector assets, including dividend requirements.
- **Environmental protection** — promoting ecologically sustainable development via appropriate pricing policies; considering demand management and least-cost planning.

Until recently, under section 13(1)(c) IPART also considers the terms of reference provided by the then Premier on 18 May 2004. These terms of reference required IPART to:

- make fare increases up to the Consumer Price Index (CPI) subject to operators achieving efficiency gains
- make fare increases above the CPI subject to operators delivering clearly demonstrated customer benefits through improvements in service quality linked to specific initiatives.

On 11 July 2007, the Acting Premier, The Hon. John Watkins MP, advised IPART that, with respect to current and future passenger rail fare reviews, the requirement to consider these matters no longer applies.

The economic circumstances of CityRail (and hence fare regulation) are made more complicated by the funding relationship between the NSW Government and CityRail. In 2006/07, taxpayer-funded subsidies from the NSW Government amounted to $1.9 billion (see Table 3.1). CityRail primarily receives these subsidies as grants from the Ministry of Transport. Some subsidies, such as those provided for concessions ($165 million), reflect the social policy of the NSW Government and are outside IPART's regulatory scope. Other subsidies may be justified due to the social benefits of rail use, particularly in the morning and afternoon peak when road

[3] CityRail is declared as government monopoly services by *Independent Pricing and Regulatory Tribunal (Passenger Transport Services) Order 1998* (Gazette No. 38, 27 February 1998, p 1015).

[4] Appendix B provides a copy of Section 15 of the IPART Act.

transport alternatives are subject to increased congestion and associated pollution (see Chapter 6).

Table 3.1 NSW Government contributions and payments to CityRail

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08B
				$m	$m	$m	$m
Concessions	167	171	178	173	171	165	167
Capital contribution	522	632	568	409	457	543	400
Other	394	510	541	903	1,021	1,175	1,184
Total	**1,083**	**1,312**	**1,287**	**1,485**	**1,649**	**1,883**	**1,751**

Note: B – Budget. 2006/07 preliminary results. Totals may not add due to rounding.

Source: RailCorp internal allocation.

3.3 NSW Government policy that relates to CityRail

The NSW Government's public transport policy features prominently in several recent strategic plans and statements, including:

- the Premier's Urban Transport Statement
- the State Plan
- the Transport Strategy for Sydney (part of the Metropolitan Strategy)
- the State Infrastructure Strategy.

Together, these policies outline the NSW Government's priorities, strategic imperatives and objectives. For instance, the Transport Strategy for Sydney indicates that one of the government's transport objectives is to 'influence travel choices to encourage more sustainable travel'.[5] The Urban Transport Statement adds that 'increasing the number of daily trips on public transport is a priority'[6] while recognising that 'maintaining public transport systems at high levels of reliability'[7] is a precondition for greater patronage. The State Plan sets the following definitive public transport targets:

- to increase the share of trips made by public transport to and from the Sydney CBD during peak hours to 75 per cent (currently 72 per cent) by 2016
- to increase the proportion of total journeys to work by public transport in the Sydney metropolitan region to 25 per cent by 2016 (currently 20-22 per cent)
- to consistently meet public transport reliability targets.[8]

5 NSW Department of Planning, *City of cities: A plan for Sydney's future*, December 2005, p 160.
6 Iemma, M, *Urban transport statement: Responding to the challenges of travel and transport within and across Sydney*, November 2006, p 2.
7 Ibid.
8 NSW Government 2006, *State Plan*, November, p 58.

Other government objectives include improving transport between Sydney's centres, improving the existing transport system and improving transport decision-making (including planning, evaluation and funding).

CityRail is integral to the NSW Government's public transport policy. Several strategies focus on investment that will directly impact CityRail's network, including:

- the introduction of Tcard
- implementing the Metropolitan Rail Expansion Program
- completing the Epping to Chatswood Rail Line
- completing the Rail Clearways Program
- the acquisition of $2.5 billion of new rolling stock by 2013.[9]

The State Infrastructure Strategy foreshadows NSW Government capital expenditure of $5.4 billion on rail-related infrastructure between 2006/07 and 2009/10.[10]

IPART will consider the NSW Government's policies on passenger rail services and public transport as part of its review of CityRail's regulatory framework. In particular, the regulatory framework will take into account the NSW Government's future investment in CityRail (as set out in the *Urban Transport Statement* and the *State Plan*).

IPART seeks comment on the following:

4 How should the NSW Government's public transport policies be reflected in the regulatory framework? For example, under what circumstances should the cost of its public transport policies be fully reflected in fares?

3.4 Links between fare regulation and the broader regulatory framework

The preceding information provides stakeholders with a summary of the broader regulatory framework governing CityRail. IPART's past approach to regulating CityRail has focussed primarily on the *increase* in fares; however, this in-depth review will cover issues which go beyond fare regulation. IPART's review will consider issues such as efficient costs, the allocation of costs between the government and users, service standards and the *base level* of fares. As such, IPART's findings may suggest changes to the broader regulatory framework (for example, by determining the efficient cost of providing CityRail's services). IPART's review will also increase the amount of information provided to key stakeholders such as the NSW Government. This additional information is likely to have an impact on how the government funds the provision of rail services in NSW and how it negotiates the SCI and associated performance agreements.

9 Iemma, M, *Urban transport statement: Responding to the challenges of travel and transport within and across Sydney*, November 2006, p 19.

10 NSW Treasury, *State infrastructure strategy: New South Wales 2006-07 to 2015-16*, 2006, p 36.

While this issues paper summarises the broader regulatory framework, the analysis and options presented here focus on the fare regulatory options available to IPART - Chapter 7 provides information on some of the economic fare regulation models. However, the review is likely to include recommendations that affect the broad regulatory framework. This will be addressed in IPART's draft report due to be released in June 2008.

4 Costs and cost efficiency

Any framework for regulating CityRail fares will need to take account of CityRail's cost structure — particularly the drivers of costs, the level of efficient costs and the potential for productivity improvements. CityRail's cost structure is influenced by:

- the efficiency of its operations in relation to service provision and asset maintenance
- the assets that relate to the provision of its regular passenger services
- the operating environment (including for example, population density, length of the network, demand peaks)
- the level of service it is required to provide in terms of the mix of services, the service schedule and the level of customer service
- government requirements for revenue protection and passenger security (for example, requirements for staffing of stations, transit offers and train crewing).

In other industries that IPART regulates, users contribute only to the efficient costs of providing the regulated service. That is, fares or prices are based on the efficient economic costs of providing services. In the public transport industry, government also contributes to the cost of providing passenger services.

IPART has previously indicated that it considers it 'unlikely that CityRail is operating at the lowest possible cost'.[11] One of IPART's key concerns in this review is to obtain a clear picture of CityRail's costs, including the drivers of these costs, and the efficiency of these costs. This will help it to understand the extent to which CityRail could respond to incentives to reduce its costs by operating more efficiently.

IPART has engaged an independent consultant to undertake a total cost review of CityRail's operations. The consultant will estimate the efficient cost of providing CityRail's regular passenger services taking account of any potential efficiency improvements for each of the next five years. IPART will release the consultant's draft report for public comment before the consultant provides its final report.

The following sections summarises IPART's initial analysis of CityRail's costs. Section 4.1 outlines the services that CityRail provides. Section 4.2 describes CityRail's current cost structure – including its operating costs, capital costs and asset base – and the potential drivers of these costs. Section 4.3 examines CityRail's cost

11 IPART, *Review of Fares for CityRail in NSW 2006 – From 2 July 2006 - Determinations and Report*, June 2006, p 11.

efficiency including comparisons to available benchmarks, and the potential for CityRail to be provided with incentives to operate efficiently.

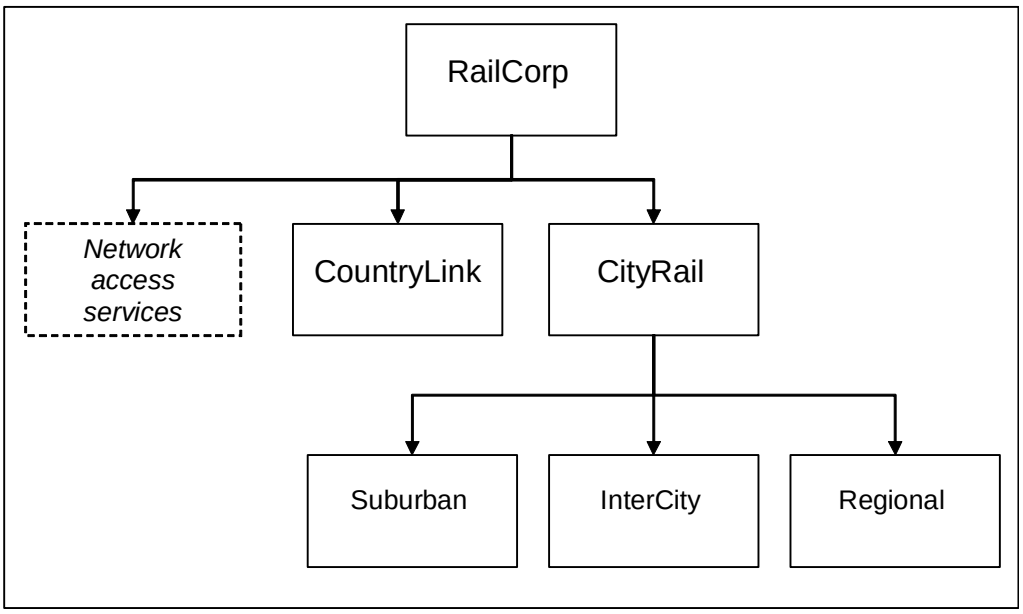
4.1 CityRail's services

CityRail provides passenger rail services in the Sydney and the surrounding regions. It operates suburban, intercity and regional services (see Figure 4.1):

- Suburban services which operate in the Sydney metropolitan area bounded by Macarthur and Waterfall in the south, Emu Plains in the west and Berowra in the north.
- Intercity services run between Sydney and areas within the Greater Sydney region, including the Blue Mountains, Newcastle and the Central Coast, and the South Coast. Some intercity's services also stop at larger suburban stations and may transport suburban rail passengers.
- Regional services, provided by diesel railcars, operate in the Hunter and Southern Highlands. Regional services generally run to Sydney.

A map of the CityRail network is provided in Appendix C.

Figure 4.1 Structure of RailCorp's network



Source: IPART.

CountryLink services operate on parts of the CityRail network. A different fare schedule applies to CountryLink customers. RailCorp also generates non-passenger related revenue from its CityRail network through providing freight rail service providers with network access. In principle, CityRail's passengers should not cross-subsidise freight rail services providers or RailCorp's CountryLink passengers.

So any costs associated with these activities should not be incorporated into the regulatory framework.

The declaration of CityRail as a monopoly service provider does not distinguish between its suburban, intercity and regional networks - and the associated services. As a result, IPART has not previously sought to distinguish between these services in setting prices. However, if there are significant differences between the services in relation to the level of cost recovery or cost drivers, it may be appropriate for the regulatory framework to distinguish between these services.

IPART seeks comment on the following:

5 Should IPART distinguish between CityRail's suburban, intercity and regional networks and services in setting fares?

4.2 Cost structure

When considering the revenue CityRail needs to deliver its services IPART will need to examine CityRail's operating costs and capital costs. Under an alternative regulatory regime (see Chapter 7), it may also need to consider CityRail's asset base.

4.2.1 Operating costs

The financial information provided to IPART by CityRail for IPART's 2007 fare determination indicates that, in the absence of government contributions and payments, CityRail's costs far exceed its fare revenue. In 2007/08, CityRail's total operating expenses, including depreciation, will rise to $2.4 billion (see Table 4.1). Labour represents the largest component of CityRail's total costs — around 50 per cent — and this has grown at an annualised rate of 4.8 per cent since 2004/05.[12]

12 Nominal increase.

Table 4.1 CityRail's revenue and operating expenses

	2004/05 ($m)	2005/06 ($m)	2006/07 ($m)	2007/08B ($m)	Average annual growth 2004/05 to 2007/08 (%)
Revenue					
Farebox revenue	487.2	490.5	529.3	551.0	4.2
Government contributions and payments	1,485.5	1,648.7	1,883.4	1,749.9	5.6
Other revenue	129.6	178.4	173.5	151.4	5.3
Total revenue	2,102.3	2,317.6	2,586.2	2,452.3	5.3
Expenses					
Labour	1,046.6	1,066.5	1,110.4	1,205.2	4.8
Contracts and professional services	292.7	277.2	275.5	329.9	4.1
Materials and spares, and plant and equipment	149.4	206.6	214.0	249.4	18.6
Other operating expenses	113.0	72.3	82.0	221.6	25.2
Depreciation and amortisation	395.7	406.8	384.2	399.0	0.3
Total expenses	1,997.5	2,029.4	2,066.1	2,405.1	6.4

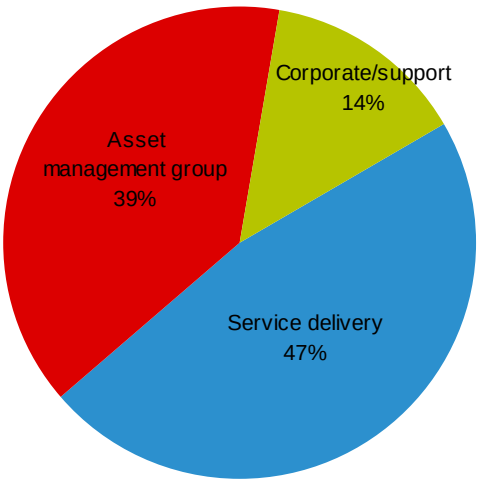
Note: B – Budget.

Source: RailCorp internal allocations.

IPART is concerned that the annualised growth in operating costs, 6.4 per cent since 2004/05, is well above CityRail's growth in farebox revenue (4.2 per cent) and its growth in other business revenue (5.3 per cent). This increase in costs has, until recently, required considerable increases in government deficit funding (taxpayer subsidy).

CityRail provided information for the 2006 fare review on total operating costs for each of its business groups (see Figure 4.2). RailCorp indicates that two main groups — service delivery and asset management — account for 86 per cent of CityRail's costs. Service delivery comprises costs relating to access and electricity, train crewing, rolling stock, train operations, station operations, security services, standards and passenger information and, ticketing system and policy. Asset management group's costs relate to CityRail's infrastructure, communications and systems control and, engineering.

Figure 4.2 CityRail's operating costs by business group (excluding depreciation), 2006/07



Data source: IPART.

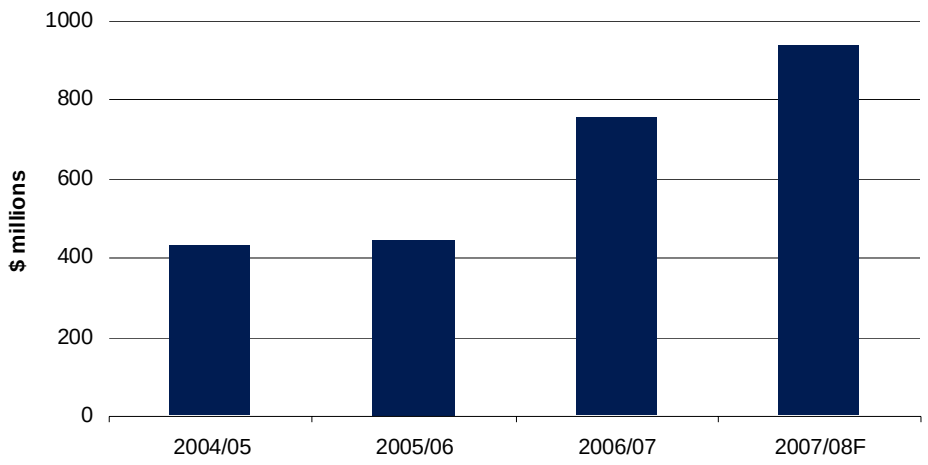
IPART appreciates that a key driver of CityRail's operating costs is likely to be the level of service it is required to provide. For example increased train frequency, improved cleanliness of trains and stations and additional passenger security and revenue protection measures such as the staffing of stations, train crewing practices and the presence of transit officers are all likely to increase costs. However IPART is concerned that the lack of transparency regarding service standards and scope makes it difficult to assess the impact on CityRail's costs.

In undertaking the total cost review of CityRail's operations, IPART's cost consultant will identify the likely drivers of CityRail's operating costs, both currently and over the coming regulatory period. This will include examination of the extent to which CityRail's required level of service is driving CityRail's costs.

4.2.2 Capital costs

CityRail's capital expenditure was $754 million in 2006/07, an increase of 68 per cent (see Figure 4.3). CityRail manages capital works relating to track and infrastructure upgrades and the purchase of new rolling stock. At present, most of CityRail's capital costs are directly funded by the NSW Government.

Figure 4.3 CityRail's capital expenditure



Note: F – Forecast.

Data source: RailCorp.

TIDC undertakes some of the State's major rail-related capital expenditure. It is responsible for many of the 'greenfield' expansions of the CityRail network including the Chatswood to Epping rail line, the North West rail link and the South West rail link. $353 million was allocated in the NSW budget to major capital expenditure programs undertaken by TIDC in 2007/08.[13] In addition, CityRail outsource some of its capital expenditure programs to TIDC (for example, the Rail Clearways program and the North Sydney station redevelopment).

In undertaking the total cost review of CityRail's operations, IPART's cost consultant will identify the likely drivers of CityRail's capital costs, both now and over the next 5 years.

4.2.3 Asset base

The existing regulatory framework does not recognise the full cost associated with maintaining CityRail's assets (both a return on and of assets). However, depending on the regulatory framework adopted by IPART, CityRail's asset base could have an important impact on future fare outcomes (see Chapter 7). In that context, as part of this review IPART will be seeking to understand the assets and capital expenditure that directly relate to the provision of CityRail's regular passenger services. In undertaking the total cost review of CityRail's operations, IPART's cost consultant will identify the assets which relate to the provision of CityRail's regular passenger services and will develop a methodology for allocating assets to the different sub-networks (suburban, intercity and regional).

13 NSW Treasury 2007, *Budget Statement 2007-08*, Budget Paper 4, Sydney, p 1-9.

At present, IPART has limited information on CityRail's asset base. RailCorp publishes its assets in its annual report, which indicate that it has net assets of $12.4 billion (see Table 4.2), but it does not separately report the assets of CityRail or CountryLink.

Table 4.2 Summary of Railcorp's balance sheet

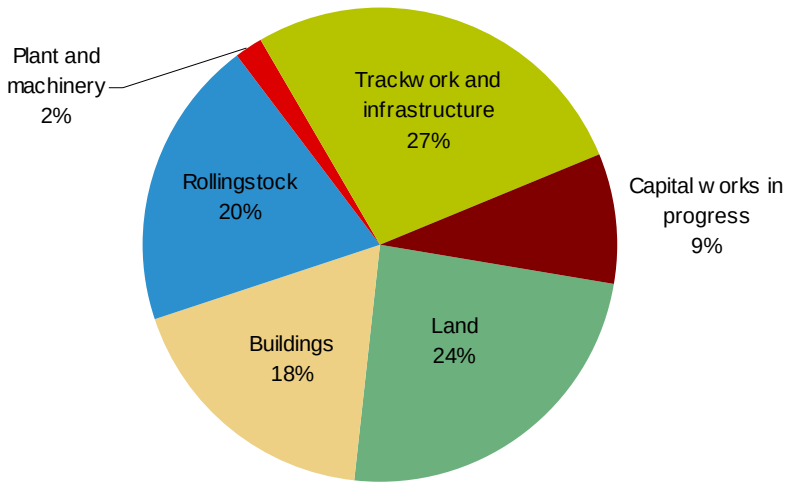
	2004/05 $m	2005/06 $m	2006/07 $m
Current assets	500	469	542
Non-current assets	11,625	12,078	12,771
Current liabilities	697	705	816
Non-current liabilities	127	125	135
Net assets	**11,301**	**11,718**	**12,361**
Equity	11,301	11,718	12,361

Note: Initial asset values are based on fair value at acquisition. RailCorp revalue's its property, plant and equipment, at least once every five years, to fair value having regard to the asset's highest and best use.

Source: RailCorp, Annual Report 2005/06 and preliminary final results for 2006/07.

The major asset class for RailCorp is 'property, plant and equipment' which accounts for about 95 per cent of RailCorp's non-current assets. RailCorp's largest asset classes within this category are its trackwork and infrastructure, which is valued at $3.4 billion, and its land, which is valued at $3.0 billion (see Figure 4.4).

Figure 4.4 Proportion of each property, plant and equipment asset class (2006/07)



Data source: RailCorp.

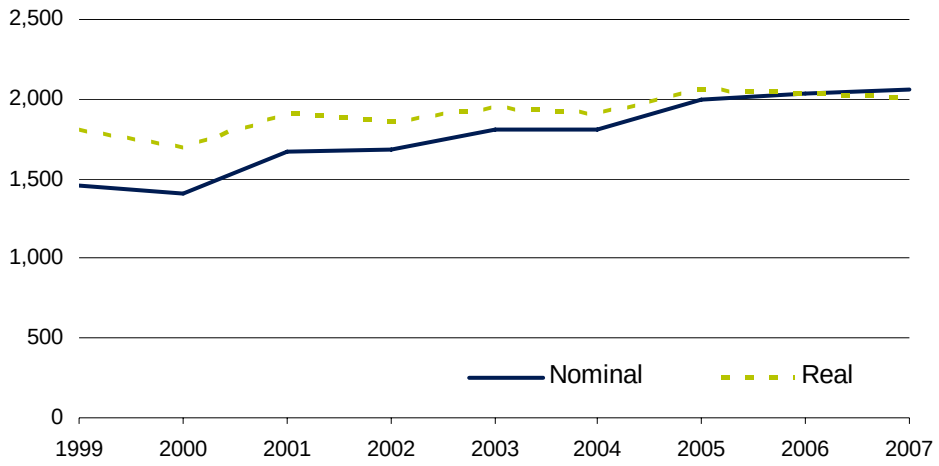
4.3 Efficient costs and productivity

Consideration of the cost efficiency of CityRail's operations is relevant to fare regulation under the current framework and is a key focus for IPART's work on the new regulatory framework. In undertaking this review, IPART intends to explain CityRail's cost efficiency as well as the potential for efficiency gains.

4.3.1 Cost efficiency

Figure 4.5 shows how CityRail's reported total operating costs (including depreciation) have changed since 1999.

Figure 4.5 CityRail's total operating costs



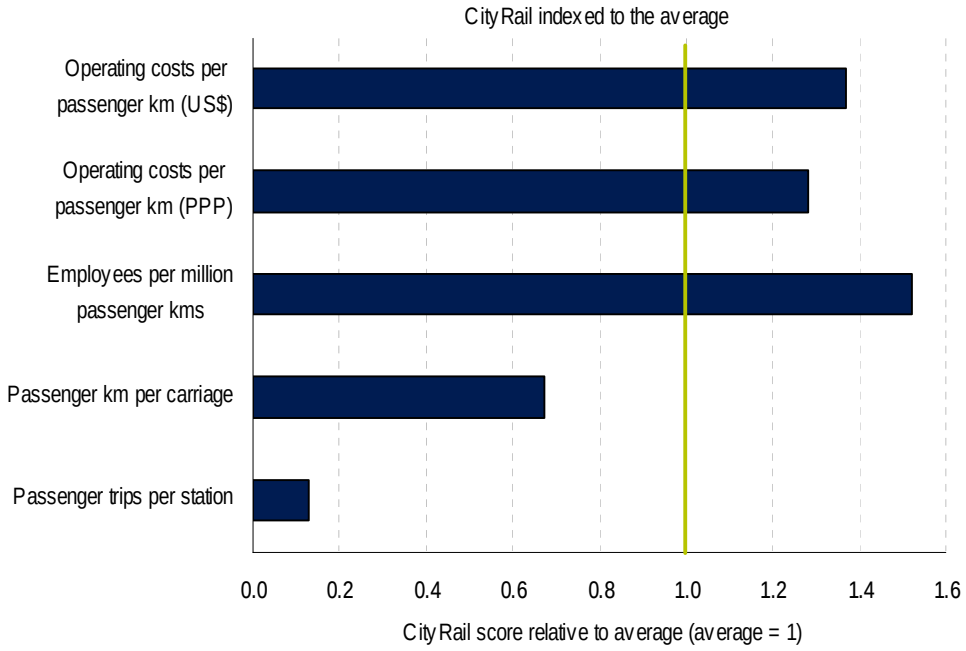
Note: Real is measured using 2006 dollars.

Data source: IPART based on ABS (Cat no. 6401.0).

Given the lack of detail regarding cost allocation IPART does not have a clear understanding of the underlying causes for the increase in CityRail's operating costs for example, whether labour costs are being driven by government imposed service requirements (in terms of customer service and passenger security measures such as staffing of stations, transit offers or train crewing).

IPART recognises that some aspects of CityRail's operations may make it difficult to compare it to other metropolitan rail networks and hence complicates any comparison of rail operators' efficiency.[14] However, it appears that the efficiency of CityRail's performance, whether in terms of costs or partial productivity measures, is well below international benchmarks (see Figure 4.6). The extent to which differences in government policy or required service standards drive the disparity in operating costs will be highlighted by IPART's cost consultant.

Figure 4.6 Benchmarking CityRail's performance



Note: PPP — Purchasing power parity.

Data source: IPART.

The disparity between CityRail and other metropolitan rail service providers in terms of costs or partial productivity measures may also be driven by the relative efficiency of their operations. The current regulatory framework considers the change in CityRail's cost but does not require IPART to consider the cost base, meaning that CityRail's costs may be above what otherwise might be considered an efficient level or a level consistent with best practice.

14 For example, costs might differ between metropolitan rail networks due to the size of the network, the density of Sydney relative to other cities, the age of the assets, differing safety standards or differing Government requirements in terms of customer service, revenue protection and passenger security.

In estimating the efficient costs associated with the provision of CityRail's regular passenger service (and estimating the potential for any efficiency savings), IPART's cost consultant will use benchmarking techniques to assess the relative efficiency of CityRail. IPART has previously acknowledged that there is no standard method for establishing the comparability of different businesses, particularly in relation to efficient costs.[15] As noted above IPART recognises that some aspects of CityRail's operations may make it difficult to compare it to other metropolitan rail networks. However, the use of benchmarking techniques to assess the relative efficiency of companies is not uncommon and is used among regulators in a price setting context and more generally in monitoring the performance of regulated utilities.

15 IPART, *Investigation into Water and Wastewater Service Provision in the Greater Sydney Region, Issues Paper*, May 2005, p 26.

5 Service standards

Service standards are likely to be an important element of any new regulatory framework considered by IPART. CityRail's performance against key service indicators fell in 2004/05, but there have been demonstrable improvements in many aspects of CityRail's service since then. Nevertheless, IPART notes that there are aspects of service which have declined and that some of the aggregate measures of service quality mask days and rail lines with lower than expected levels of service quality.

There are multiple dimensions to service standards for metropolitan rail services – punctuality, adequacy of the timetable, safety, crowding, comfort, and the provision of information. This means that any measure of service standards needs to be carefully constructed. On time running is a commonly used measure of service standards – being an indicator of reliability of the service against a timetable. CityRail reports on-time running in peak hours[16] and, more recently, over 24 hours, on its website and there have been clear improvements in on-time running since 2004. However, there remains much dissatisfaction with CityRail services as illustrated by poor press coverage, letters to the press and submissions to IPART's 2007 Review of CityRail fares.

The following sections discuss CityRail's service standards and how they might be improved through regulation. Section 5.1 describes the current service levels. Section 5.2 outlines how service standards are currently regulated. Section 5.3 focuses on how service standards can be measured. Finally, section 5.4 sets out some options for incorporating service levels into the regulatory framework.

5.1 CityRail's current service levels

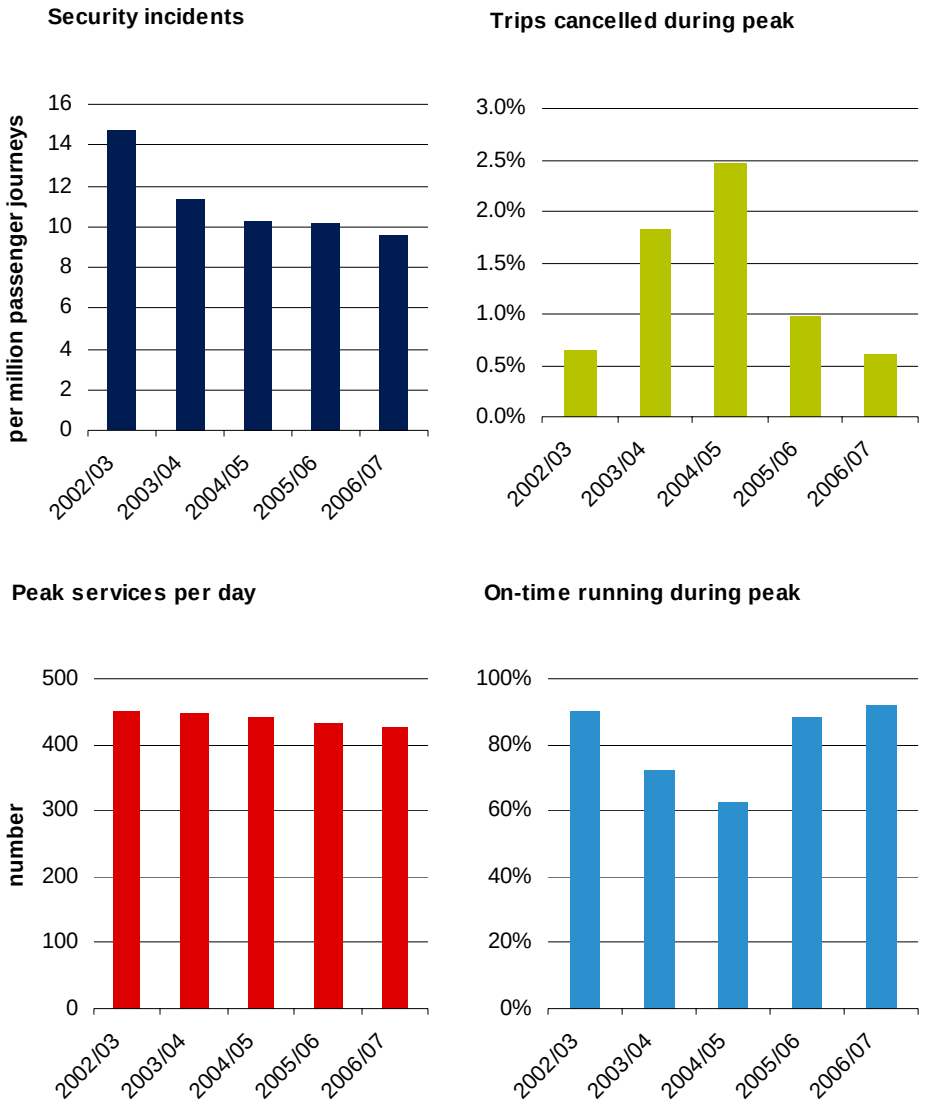
CityRail's performance across a range of service-related indicators has generally improved over recent years (see Figure 5.1). Significant reductions in the number of security incidents have been achieved, which is probably linked to the introduction of 600 transit officers and more extensive CCTV coverage. Improvements in other service indicators, including the number of trips cancelled and the on-time running performance are linked to a new timetable introduced in September 2005.[17] However the new timetable reduced the number of peak and off peak services run by

16 CityRail defines peak hours services as services arriving in the Sydney CBD between the hours of 6.00am and 9.00am inclusive (morning peak) and departing the Sydney CBD between the hours of 4.00pm and 6.00pm inclusive (evening peak) from Monday to Friday.

17 The definition of on-time running was changed in July 2005, increasing the threshold for on-time from 3:59 minutes to 5 minutes.

CityRail as well as the timetabled speed of services. ITSRR has observed that the new timetable effectively reduced the nominal capacity of the CityRail system. However, ITSRR also noted that effective capacity needs to take in to account nominal capacity and operational performance. ITSRR further noted that in some circumstances from a customer perspective it may be preferable to improve operational performance at the expense of a reduction in nominal capacity. The available evidence suggests that the net effect has been positive.[18]

Figure 5.1 A selection of CityRail's service indicators



Note: Security incidents includes assaults, robbery, sexual assault and, theft.

Data source: CityRail website and IPART.

18 ITSRR, submission to IPART on CityRail Fares for 2007, p 13.

Passenger perceptions about CityRail's level of service have also shown signs of improvement. Annual surveys of CityRail's customers undertaken by ITSRR since 2004, ask respondents to rate the importance and quality of 37 aspects of service. Since 2004 the proportions of people with expectations met remained constant or improved for 11 out of the 13 aspects of service rated in 2007 as most important[19] (see Table 5.1).

Over 75 per cent[20] of train users responding to ITSRR's 2007 survey were satisfied[21] with the cost of train travel. Almost half of train users surveyed (44 per cent) rated the cost of train travel as 'good' or 'very good'.

In 2006 and 2007 there were sustained significant increases in proportions of people with expectations met for journey time (80 per cent in 2007 but not listed in Table 5.1 as it was ranked 26 in average importance), frequency of trains (69 per cent) and punctuality (68 per cent). There was however a significant decrease in the proportion of people with expectations met for crowding in peak trains (36 per cent in 2007 compared with 41 per cent in 2006). Improvements in perceptions of journey time and frequency of trains are surprising given the reductions in the number of peak timetabled services and the timetabled speed of trains in September 2005. ITSRR hypothesises that this might be because frequency and journey time are less likely to be issues for train users if they can depend on their train being on time[22].

19 The changes are not necessarily statistically significant.

20 ITSRR, *Survey of CityRail Customers 2007*, p 46.

21 ITSRR, *Survey of CityRail Customers 2007*, pp 43 and 46. 'Satisfied' means train users who rated that aspect of service as desirable or more important and acceptable or better in quality.

22 ITSRR Survey of CityRail customers 2007, p 4.

Table 5.1 ITSRR surveys – CityRail Aspects of service – percentage of train users with expectations met [a][b]

	Percentage with expectations met				Importance ranking
	2004	2005	2006	2007	2007
Personal safety on stations in the evenings	66	71	70	66	1
Personal safety in train carriages, evenings	64	67	64	62	2
Station information about arrival/departure times	71	66	78	79	3
Punctuality of trains	44	38	64	68	4
Quality of information about delays and cancellations	63	57	69	68	5
Frequency of trains	56	52	63	69	6
Clarity of announcements on platform	64	61	64	64	7
Timeliness of delay/cancellation announcements	62	58	67	70	8
Removal of litter from the train	79	80	78	77	9
Staff effectiveness in dealing with security problems	63	65	69	64	10
Facilities for calling for help in carriages/on platform	63	68	66	64	11
Personal safety on stations, peak	82	82	82	83	12
Delays and cancellations	41	38	59	62	13
aspect of service with lowest % of expectations met	crowding (38%)	punctuality (38%)	avail. of secure parking (38%)	crowding (36%)	

Notes

a ITSRR surveys 37 aspects of service. Aspects included in this table were those ranked most important by customers surveyed in 2007. The aspect of service with lowest levels of satisfaction that year is also included.

b percentage of train users who rated that aspect of service as being desirable or higher in importance and acceptable or better in quality.

Statistically significant (at 1% significance) increase from the previous year.

Statistically significant (at 1% significance) decrease from the previous year.

Source: ITSRR Surveys of CityRail Customers 2004, 2005, 2006 and 2007.

5.2 How CityRail's service standards are currently regulated

CityRail's target service standards are set in the Rail Performance Agreement, a commercial-in-confidence agreement between the Minster for Transport and RailCorp under the TAA. CityRail is also publicly committed to some performance benchmarks through the NSW State Plan and CityRail's customer service commitment. A commuter charter is also being developed (announced by the Premier in March 2007).

Table 5.2 CityRail target service standards

Performance indicator	State Plan	Commuter charter	Customer Service commitment[a]
On-time running	92%[b]	Not yet available	92%
Services cancelled	-	-	1%
Stops skipped	-		<1%

Notes:

a In addition CityRail makes commitments about station cleaning and equipment repairs, security (number of transit officers, emergency help points), service to people with special needs, customer information (aim to answer 80% of calls within 20 seconds) , 98.5% of ticketing devices operating at all times, and providing advice concerning service changes.

b percentage of CityRail trains run on-time across the network.

Source: NSW State Plan, November 2006, Customer Service Commitment, CityRail website 25 July 2007.

ITSRR reports annually in its Transport Reliability Report on the performance of CityRail against these standards and performance on crowding, complaints handling and availability of: ticket machines, public address systems, closed circuit TV and help points.

5.3 How service standards could be measured

A central issue when considering incorporating service standards into the regulatory framework is to decide which aspects of service should be considered and are capable of being incorporated into the regulatory approach. Ideally service standards should reflect the customers' views of what is important, be quantifiable and, for benchmarking purposes, comparable with other jurisdictions.

ITSRR identifies three major dimensions of service quality[23]:

- Operational performance (for example, certainty of service and on-time running).
  - CityRail currently has targets and reports to the Minister and publicly on some aspects of operational performance – on-time running in peak hours, peak stops skipped and peak services cancelled. CityRail also publishes additional information on its website for example the weekly average duration of delays.
- Timetable (for example, number of services, frequency of service and transit times).
  - These aspects of service are not specifically covered under the Rail Performance Agreement, State Plan or CityRail Customer service commitment. CityRail reports on the number of peak services per day but does not regularly report publicly on other timetable indicators.
- Amenities eg, comfort convenience and security of services.

[23] Independent Transport Safety and Reliability Regulator submission to IPART hearings for determination of CityRail fares for 2007, p 7.

– CityRail has targets under the Rail Performance Agreement for some aspects of amenity (crowding) and monitors and reports publicly on a number of other aspects eg, offences against people and property; vandalism - seats, windows replaced, graffiti removed from trains and trackside; availability of ticketing systems, lifts and escalators, CCTV and Help points; and customer complaints.

ITSRR's annual surveys of CityRail ask customers to assess the importance and quality of 37 aspects of service. Table 5.1 illustrates the thirteen aspects of service rated as the most important by train travellers in ITSRR's 2007 survey. All but two of these aspects of service have been ranked in the top 13 most important in each of ITSRR's annual surveys. Interestingly, and perhaps counter intuitively, in the last two years punctuality, frequency and delays and cancellations have been rated as less important than personal safety on stations and in train carriages in the evenings (most important) and station information on arrival and departure times.

However, there is some movement in the importance rankings for aspects of service as different problem areas come to the fore. For example in 2004 and 2005 when on-time running was poor, delays and cancellations were rated as more important (rank 7) than they were in 2006 and 2007 (rank 12 and 13) when on-time running improved.

This movement in priorities over time is highlighted in another part of the ITSRR surveys (see table 5.3). Train users are asked to nominate which of the following three aspects of service are most important to them: train punctuality, train frequency or journey times. There have been significant changes over the four survey years with a steady fall in the percentage of people nominating punctuality as highest priority and a steady rise in proportions of people nominating frequency as top priority. 2007 was the first year that more people nominated frequency than punctuality as top priority.

Table 5.3 Highest priority of punctuality, frequency and journey time

	2004 %	2005 %	2006 %	2007 %
Punctuality	55	52	45	41
Frequency	39	40	43	49
Journey time	6	7	10	9

Note: Totals do not add to 100% due to 'Don't know' responses.

Source: ITSRR Survey of CityRail Customers 2007, p 28.

As part of this review IPART will estimate the costs of providing increases in the various aspects of service. This should provide information to all stakeholders, both passengers and government, on the costs of providing service improvements and whether passengers would be willing to pay for these improvements.

5.3.1 Measurement of service standards in other jurisdictions

There are a variety of measures of the quality of metropolitan rail services used in other Australian cities and overseas. Most cities set targets for some aspects of service quality, although the targets vary. Typical measures include:

Operational performance - punctuality and reliability

- Percentage of services on-time
  - This is a measure used in many cities including Sydney, Melbourne, Adelaide, Perth, NOVA and CoMET metros[24]. There are many variations in the measure: definitions of 'on-time' vary; 'on-time' may be measured at peak times only, and/or over 24 hours; it may be measured line by line or across the whole network; and the points at which on-time running is measured vary. For example, in Sydney on-time running is measured at Sydney's CBD in the morning peak[25] and last passenger destination in the afternoon peak.
  - In Sydney the definition of 'on-time' for suburban trains changed in July 2005 from 3:59 minutes to 5 minutes. While there has been public criticism[26] of the definition change, it appears that 5 minutes is a commonly used tolerance internationally[27].

[24] NOVA and CoMET metros are two groups of metros using international benchmarking. CoMET metros include Berlin, Hong Kong, London underground, Madrid, Mexico City, Paris, New York, Shanghai, Sao Paulo and Tokyo. NOVA metros include Buenos Aires, Dublin, Glasgow, Hong Kong, Lisbon, Montreal, Naples, Newcastle (UK), Rio de Janeiro, Santiago de Chile, Singapore, Taipei and Toronto.

[25] CityRail defines peak hours services as services arriving in the Sydney CBD between the hours of 6.00am and 9.00am inclusive (morning peak) and departing the Sydney CBD between the hours of 4.00pm and 6.00pm inclusive (evening peak) from Monday to Friday.

[26] Many submissions to IPART on the 2007 Review of CityRail fares were critical of the change in definition of on-time running and the accuracy of data reported by RailCorp.

[27] ITSRR Review of On-time Running of CityRail Services, 2004, p 11.

– ITSRR suggests[28] that care should be taken in using on-time running statistics as an indicator of outcomes for customers. ITSRR notes that aggregate on-time running statistics may not be sensitive to single incidents, even those that have caused major disruption. For example an incident on the Harbour Bridge on 5 July 2007 resulted in significant delays for many people[29] although CityRail's on-time running that week of 90 per cent was not greatly below its target of 92 per cent and on the North Shore line overall peak on-time running that week was 86 per cent. The less aggregated statistics (PM peak for the week on the Northern Line - 51.7 per cent; Western Line - 55.5 per cent and North Shore line - 69 per cent[30]) clearly shows the effect of this incident. CityRail has indicated it is working towards reporting on on-time running over 24 hours. However ITSRR suggested that increased aggregation of on-time running statistics (eg, to 24 hour on-time running) would increase the limitations of this measure as an indicator of customer service and that on-time running should be supplemented by a measure of customer delay.

Some other examples of operational performance include:

- Total minutes late per month (Sydney – measured in peak hours).
- Percentage of services early at measured points (Adelaide).
- Passenger journeys on-time/total passenger journeys (CoMET and NOVA metros).
- Passenger hours delay/passenger journeys (CoMET and NOVA metros).
- Percentage of timetabled services run (Sydney, Melbourne, Adelaide and others).
- Car hours between incidents (CoMET and NOVA metros).
- Car hours/hour train delay (CoMET and NOVA metros).

28 ITSRR submission to IPART for CityRail 2007 fare review, pp 19-20 and p 4.

29 Sydney Morning Herald, 7 July 2007, p 4, reported 'More than 30,000 commuters caught buses or walked across the Bridge' as a result of a train breakdown and the Daily Telegraph, Friday 6 July, p 1, reported the transport system as paralysed and disruptions to 'hundreds of thousands' of travellers.

30 CityRail website.

Timetable and amenity

Timetable and amenity measures are less widely used. Examples of these measures include:

- Train kilometres each month (Melbourne).
- Passenger kilometres each month (carriage capacity x service kilometres).
- Number of train services per weekday/week/month.
- Customer satisfaction overall or with service frequency or journey times.
- Service frequency.
- Percentage of customers reporting being satisfied (Adelaide, Perth).
- Percentage of passengers feeling safe (Adelaide, Perth).
- Customer satisfaction with cleanliness.
- Customer satisfaction with crowding levels.
- Percentage of peak hour trains with greater than 35 per cent more people than seats (referred to as loads exceeding 135 per cent (Sydney).

IPART would like to work with CityRail, the government and the community to develop a set of meaningful indicators that will transparently reflect CityRail's level of service performance. Ideally, indicators should reflect operational factors, such as on-time running, timetable and amenity factors which reflect consumer perceptions about service quality. IPART is aware that CityRail and ITSRR have already undertaken considerable work in this area.

IPART seeks comment on the following:

6 What indicators of service standards would most effectively reflect the experience of CityRail customers?

7 Is there a useful single indicator of service standards?

8 What relative weights should be given to measures of operational performance (reliability and punctuality), timetable (quantity of timetabled services) and amenity (crowding, comfort, safety, information etc)?

9 How could the current measure of on-time running be improved?

5.4 Options for incorporating service standards in the regulatory framework

There is a range of options for incorporating service standards into CityRail's regulatory framework. These options include introducing requirements for CityRail to publicly report on service performance; introducing requirements for CityRail to compensate customers when service standards falls below a specified level; and

introducing financial penalties/rewards for falling below/exceeding specified service levels. Each of these options is discussed below.

5.4.1 Public reporting

CityRail would be required to publicly report regularly on its actual performance. This is effectively the current system in relation to on-time running, services cancelled and stops skipped in peak hours. This approach could be enhanced by:

- improving the measures used (for example, by ensuring measures are indicative of customer experience, and adding timetable and amenity measures)
- developing targets for a wider range of aspects of service (eg, timetable and amenity)
- regular public reports on these measures and on performance against the targets, including explanations, which are accessible and understandable to the public, and
- requiring comparison with other urban railway systems.

5.4.2 Customer compensation where service levels fall below a certain standard

This approach involves identifying aspects of service and setting target levels, with arrangements that would allow customers to be compensated when service falls below the minimum standards. Compensation might be paid when service standards fall below minimum standards by a defined amount or a defined number of times in month/year. This type of scheme operates in Melbourne where Connex compensates customers with free tickets in a variety of circumstances. For example, a customer can claim a free daily ticket if that customer has a monthly, six monthly or yearly ticket and monthly performance falls below stated levels or 2 daily tickets if monthly performance falls below a lower threshold.

The advantage of this approach is its responsiveness to customers' experience and the creation of an incentive to improve service levels by investing in improvements that reduce the likelihood of compensation being paid (assuming costs of compensation are borne by the service provider and the government subsidy is capped).

There are some difficulties in this approach. CityRail does not know the identity or contact details for the majority of its customers and is unable to accurately identify which travellers have been impacted by poor service on a particular day as service standards can vary substantially over the course of a day but tickets do not record the time of travel. For these reasons it would be difficult to make compensation payments automatic and administration of this arrangement could be complex and expensive. This approach reduces the operator's revenue (free tickets reducing fare revenue) or increases it costs (direct penalty payments) which may reduce the operator's ability to improve service quality.

5.4.3 Incentives for exceeding defined service standards factored into price/revenue caps

For electricity distribution networks, some regulators have implemented a service standards reward systems, or 'S-factor', into their regulatory approaches.

Under this approach actual service levels would be compared with expected or target service levels. Total fare revenue allowances would be adjusted up if target service levels had been met or exceeded. Customers could reasonably be expected to pay more for higher quality service. Limits might be placed on the amount of revenue which might be gained. In Melbourne, Connex the metropolitan train operator can obtain incentive payments for exceeding performance targets and can incur penalties for below target performance. See Appendix 1 for more information on the Melbourne framework.

This approach could be an effective incentive to improve service performance (and thus increase fare revenue or prevent reductions in fare revenue) where non-fare revenue is capped. The penalty approach effectively spreads the compensation for poor service levels across all users in the form of reduced fares but reducing funding when service is poor could lead to further deterioration in service standards. An incentive approach rewards the operator with revenue and in theory users should be willing to pay more for higher quality services. However, this approach is unlikely to be effective where the government compensates CityRail for costs that are not recovered in fares.

IPART seeks comment on the following:

10 How can CityRail's service performance be incorporated into the regulatory approach and fare decisions?

11 To the extent that passengers advocate higher service standards, would they be prepared to accept higher fares for improved service?

6 Cost sharing and net social benefits

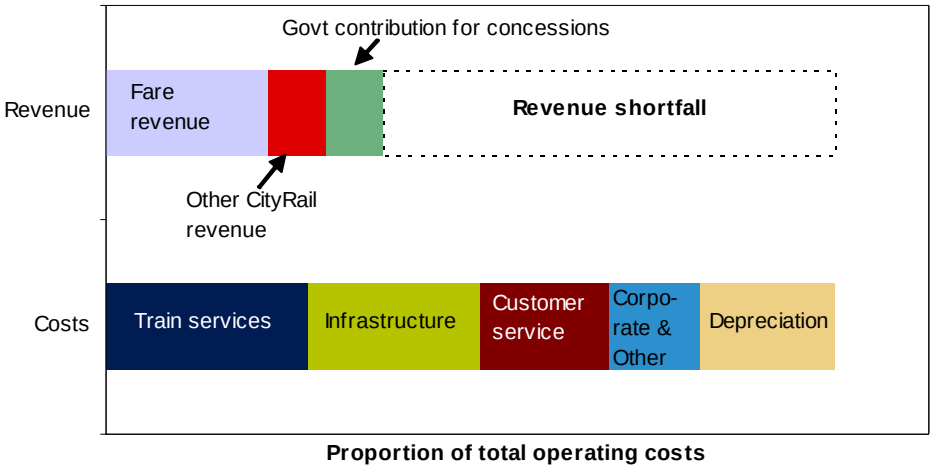
At present, most of CityRail's operations are funded by taxpayers via government subsidies. In 2006/07, the level of government funding budgeted for CityRail was $1.9 billion, which is equivalent to taxpayers providing a subsidy worth $15 per week per household in NSW.[31] After establishing appropriate cost sharing arrangements, the government will continue to contribute to the costs of providing CityRail's services.

The sections below describe the current government funding arrangements for CityRail, and consider what level of cost sharing between users and taxpayers (via government subsidies) is appropriate, in light of the social benefits and costs associated with the provision of CityRail services.

6.1 What are the current funding arrangements for CityRail?

CityRail's user-related revenue and its capacity to generate revenue from other sources are not sufficient to cover the cost of its operations. There is a significant revenue shortfall (see Figure 6.1), which is currently being funded through government contributions.

Figure 6.1 CityRail's revenue relative to its total operating costs (2005/06)



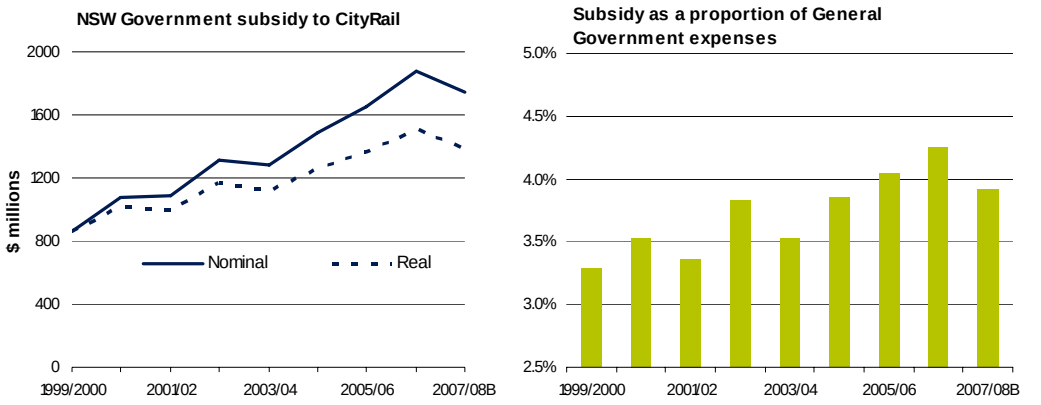
Notes: Total costs do not include interest payments.

Data source: RailCorp, IPART.

31 RailCorp and ABS (Cat No. 2068.0).

Government funding of CityRail's services has grown significantly since 1999/2000. In real terms, it has increased at an annual average rate of 8.3 per cent (see Figure 6.2), compared to real revenue growth for the general government sector in NSW of only 1.6 per cent (average) per year.[32] In 2006/07, the NSW Government subsidy to CityRail ($1.9 billion) represented 4.3 per cent of total general government expenditure; seven years ago the subsidy ($859 million) represented 3.3 per cent of the NSW Government's general expenditure (see Figure 6.2).[33] The 2007/08 subsidy is expected to decrease to $1.7 billion as a result of a budgeted reduction in capital grants.[34]

Figure 6.2 NSW Government subsidy to CityRail



Note: B – Budget, 2006/07 data reflects revised figures.

Data source: RailCorp, NSW Treasury budget papers (various years).

If CityRail's cost and revenue trends continue cost recovery will increasingly be an issue. Cost recovery (excluding concession funding) is forecast to fall to 29 per cent in 2007/08 (see Table 6.1). Implicitly, this indicates that NSW taxpayers fund some 71 per cent of CityRail's operations through government subsidies (including funding for concessions). Even accounting for social policy considerations, reflected through the government's concession funding, CityRail's revenue only recovers just over a third of its costs.

32 Arithmetic mean based on NSW Treasury 2007, *Budget Statement 2007-08*, Budget Paper 2, Sydney, p 1-17.

33 RailCorp and IPART calculations.

34 IPART calculation based on RailCorp data.

Table 6.1 Cost recovery for CityRail's services

	Cost recovery (excluding concession funding)	Cost recovery (including concession funding)
1999/2000	43%	54%
2000/01	37%	46%
2001/02	36%	46%
2002/03	34%	43%
2003/04	36%	46%
2004/05	31%	40%
2005/06	33%	41%
2006/07	34%	42%
2007/08B	29%	36%

Note: Revenue includes other business revenue (for example, advertising, rail access fees). Costs are defined as CityRail's total operating costs.
B – Budget, 2006/07 data reflects revised budget figures.

Source: RailCorp.

6.2 What level of cost sharing between users and taxpayers is appropriate?

The low level of farebox cost recovery raises questions about the appropriate level of cost sharing between CityRail's users and taxpayer funding through government subsidies. The terms of reference for the review require IPART to consider "an appropriate range for the allocation of costs between government and users, taking into consideration the positive environmental, economic and social benefits for the community generated by CityRail's services".

IPART intends to develop a framework for considering the share of CityRail's costs to be recovered in fares, and that funded by government via concessions or subsidies. This framework will consider factors including:

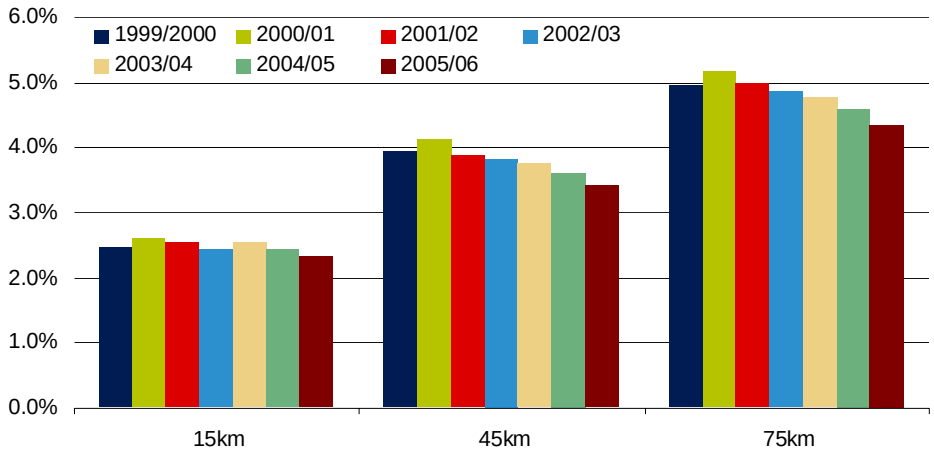
- The efficient costs incurred in meeting a given level of service quality.
- The capacity of users to pay and the social impacts of fare changes.
- The extent to which CityRail's operations generate social costs and benefits (also known as externalities), that is, costs and benefits that extend beyond those accruing to the passengers themselves.
- The extent to which a general fare subsidy results in an increase in the net social benefits of rail (that is, a comparison of the incremental cost to government of providing a subsidy, compared with the *additional* net social benefits generated as a result of the subsidy).
- The impact of government policy decisions on CityRail's operations, for example in terms of fare concessions, investments or operating practices.

6.2.1 Equity issues

The statistical profile of CityRail's passengers indicates that they are more likely to have full-time work and a higher annual income than the wider Sydney population. Excluding school children (who travel for free), 77 per cent of passengers travelling between 6am and 9am on a weekday are engaged in full-time employment.[35] This evidence suggests that CityRail's passengers may have a greater capacity to pay than the general NSW population who provide most of CityRail's funding through government subsidies. IPART will need to better understand the equity issues surrounding the user versus non-user contribution to funding CityRail's services.

Furthermore, in recent years commuter fares have generally declined as a proportion of average weekly earnings (see Figure 6.3). Generally, the share of household expenditure spent on public transport is small (on average across Australia). The Australian Bureau of Statistics' 2003/04 Household Expenditure Survey indicates that, on average, 0.5 per cent of household income is spent on public transport for the lowest income quintile compared with 0.3 per cent of household income spent on public transport for the highest income quintile.[36]

Figure 6.3 Selected CityRail weekly fares as a proportion of average adult ordinary time weekly earnings in NSW



Data source: RailCorp, ABS (Cat no. 6302.0).

35 Based on information supplied Transport and Population Data Centre (TPDC) and cited in IPART, *Review of fares for CityRail in NSW 2006,* Determinations and report, Sydney, June 2006, p 35.

36 ABS 2006, *Household expenditure survey, Australia*, Cat no. 6530.0.

6.2.2 The economic role of government contributions

IPART considers that cost sharing between users and taxpayers is appropriate if the provision of CityRail's regular passenger services generates net social benefits for the community. For example, social benefits of rail might include reducing the negative impacts of road use (such as congestion and pollution) or providing transport options to people unable to travel by car (for example, school students or aged persons). To the extent that net social benefits from rail travel exist, the government could improve the economic efficiency of Sydney's urban transport outcomes by encouraging access to rail through subsidised services.

A critical question for the government is whether the cost of achieving these outcomes is greater than the benefits. If the benefits exceed the costs then the government might be justified in adopting a combination of charges, taxes, subsidies or other non-price instruments (for example, advertising) to induce people to use CityRail's services.

IPART is interested in identifying whether a general subsidy to CityRail is the most appropriate mechanism for addressing these social benefits, or whether a mix of other options should also be considered. There are several broader economic considerations associated with providing a subsidy to CityRail. For example, the government must raise revenue for the subsidy through revenue from taxation or other sources, which is likely to create distortions in other parts of the NSW economy. As CIE (2001) notes:

> Where many distortions exist concurrently in the economy the attempt to correct just one of these inefficiencies may have unexpected (and deleterious) side effects which will differ with the policy measure being employed. The use of a subsidy must be evaluated against a range of other policies and the consequences of each in achieving the set aim as well as the effects on other sectors of the economy should be compared.[37]

The government's continued real increase in funding for CityRail should also be considered against the backdrop of foregone alternatives. Government funding for CityRail comes at the expense of increased funding for other government services (for example, education or health). In 2007/08, CityRail's subsidy ($1.7 billion) will be equivalent to:

- 17 per cent of the government's spending on education ($10.6 billion)[38]
- 14 per cent of the government's spending on health ($12.5 billion)[39]

Alternatively, the size of CityRail's subsidy may prevent a reduction in the State's level of taxation. These broader economic considerations relate to the government's fiscal policy and are outside the scope of this review.

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37 CIE (Centre for International Economics), *Subsidies and the social costs and benefits of public transport*, report prepared for IPART, February, 2001, Sydney, pp 15-16.

38 NSW Treasury 2007, *Budget Statement 2007-08*, Budget Paper 2, Sydney, pp 2-13.

39 Ibid.

6.3 What social benefits and costs are associated with CityRail's services?

Identifying the social benefits and costs associated with CityRail's regular passenger services will help IPART to identify appropriate cost sharing arrangements between users and taxpayers.

An individual's choice of transport mode reflects their assessment of the private costs and private benefits associated with each mode.[40] However, the individual's chosen mode of transport has consequences for the community as a whole due to the social costs and benefits arising from their decision. Social costs and benefits, also known as externalities, differ substantially between the different transport modes. Rail transport, in particular, is often said to avoid many of the wider environmental and social costs associated with road travel.

6.3.1 CityRail's social benefits and costs

The provision of CityRail's services may generate social benefits through providing an option for individuals who are unable to use other modes of transport. The benefits associated with such social policies are often difficult to measure. Typically, the government delivers its social policy through a subsidy that allows discounts to tickets for identified groups or permits CityRail to operate uneconomic services.[41] In 2006/07, the government provided $165 million to CityRail so that it could offer subsidised services to pensioners, through the Pensioner Excursion Tickets (PET), school students, through the School Student Transport Scheme (SSTS) and other concession holders (for example, jobseekers, apprentices and trainees, and tertiary students). In principle, the cost (to the government) of such subsidies should reflect the difference between the adult fare and the fare paid by concession holders together with the number of trips made by concession holders.

Like road travel, the provision of rail services may generate a variety of social costs. The research on the social costs associated with rail travel is less developed than the research on road travel. However, several studies (for example, INFRAS 2004, ITS

40 Transport, like many other activities, generates both private and social benefits and costs. The individual generates *private benefits* from transport through their increase in general mobility, which enables access to employment and, recreational and social activities. An individual incurs the *private costs* of transport via the direct costs associated with its use (for example, the fares paid or the time taken to queue for tickets). *Social costs* occur when an individual's private decision to travel imposes a cost on society or the environment. Similarly, s*ocial benefits* arise when an individual's private decision creates benefits for society or the environment. In economics, social costs and benefits are referred to as *externalities* because the individual does not consider them when making their decision (that is, they are external to the individual's decision).

41 Discounts need not necessarily reflect the social policy aims of Government but may reflect reasonable commercial behaviour. Many businesses offer differentiated prices for different groups of customers. For example, cinemas provide discounts to senior citizens, students and children. Typically, businesses offer such discounts because one segment of the market is more sensitive to price. So for instance, students may dramatically reduce their consumption (that is, the number of films they go to see) even if the price of admission is only fractionally higher.

Leeds 1998) suggest that there are social costs associated with rail travel.[42] Examples of the social costs of rail travel reported in these studies include:

- noise
- accidents
- greenhouse gas emissions
- air pollution
- loss of urban amenity.

There may also be other social costs from passenger rail travel relating to the impact of network congestion or overcrowded trains. These social costs may offset some of the social benefits associated with the provision of CityRail's services.

6.3.2 Avoided social costs of road use

CityRail's provision of regular passenger services may lead some people who would normally travel by car to travel by rail instead. This creates a situation where the provision of CityRail's services could avoid some of the social costs of road use.

Some of the social costs associated with road use include:

- congestion
- environmental impacts
- noise.

An explanation of these social costs is provided in Box 6.1.

IPART is aware that other social costs of road use may exist. It will consider other social costs if it can source robust estimates that indicate such costs are significant.

Box 6.1 Social costs of road use

Congestion

In transport, congestion occurs when the travel speed falls below the ordinary travel speed for a particular road or rail line. For road use the ordinary travel speed usually reflects the road's speed limit. (For rail the ordinary travel speed reflects both the track's speed limit and the 'normal' time taken to load and unload passengers at a station).

Congestion has both private and social costs. For road users, it involves higher fuel costs and longer travel times, both of which an individual factors into their private costs of road travel. The social cost arises because each road user represents an additional car on the road network

[42] INFRAS 2004, *External costs of Transport*, Update study, Final Report, October, Zurich/Karlsruhe. ITS Leeds 2001, *Surface transport costs and charges Great Britain 1998*, study for the UK Department of Environment, Transport and the Regions by the University of Leeds Institute for Transport Studies and AEA Technology Environment.

and once a particular road, or road network, reaches its congestion point any additional car increases the driving time and associated costs for all existing road users.

Individuals consider the cost of congestion on their own decision to travel but do not consider their contribution to increasing congestion costs for other road users. As such, individuals do not factor the 'true' cost of congestion into their private decision about whether to travel.[43] Hence private users 'over-consume' road use relative to the socially optimal level of use.

The Bureau of Transport and Regional Economics (BTRE) has recently estimated the average unit cost of congestion for Sydney at 8.5 cents per Passenger Car equivalent Unit (PCU) kilometres for 2007.[44]

Environmental impacts

Car travel has a number of environmental impacts primarily through the emission of major pollutants. Carbon emissions and other greenhouse gases are linked to the depletion of the ozone layer and climate change. Carbon emissions are not the only pollutant emitted from car travel. Cars also emit:

- nitrous oxides (NOx)
- sulphur dioxide (SO_2)
- carbon monoxide (CO)
- reactive organic compounds (ROCs)
- other particulates (for example, PM_{10}).

Such emissions create social costs through their deleterious impact on morbidity, mortality and agriculture (through causing acid rain). For example, health studies indicate that nitrogen dioxide (NO_2) may damage the respiratory system (including increased respiratory infections in children) and increase the effects of allergens. NOx, ROCs and PM_{10} are also associated with the smog sometimes visible in Sydney.

Noise

Cars and other road vehicles generate noise that may be heard by residents in surrounding areas hence creating a social cost. Road use is said to create greater levels of noise pollution than rail transport because the road network is much larger.

Ideally, government policy should seek to internalise the social cost of car use through road pricing (for example, a congestion charge). A congestion charge increases the relative price of car travel, so people reduce their total amount of travel

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43 Some cities (for example, London and Singapore) have imposed congestion prices. The purpose of congestion pricing is to transfer the social costs to the individual so that the individual's private cost, upon which they make their decision, includes the external cost created through the increase in congestion that they cause.

44 BTRE 2007, *Estimating urban traffic and congestion cost trends for Australian cities*, Working paper no. 71, Canberra, p 110.
PCUs are based on weights for various vehicle types BTRE (2007) indicates the typical weights are 1 for a passenger car, 2 for rigid trucks and buses, and 3 for a 6-axle articulated truck.

or switch to other modes of transport. In practice, optimal road pricing may not be technically feasible or may be prohibitively costly to implement. Under such circumstances, a government subsidy that lowers the relative price of rail travel might be justified as an alternative means of encouraging people to travel by rail rather than by car.

The avoided social costs of road use generated by the provision of rail services have previously been used to partly justify the NSW Government's subsidy to CityRail (see for example, the Parry Inquiry as discussed below). However, broader economic considerations aside, there is still significant uncertainty about the extent to which an operational (or general) subsidy to CityRail is effective in avoiding the social costs associated with road use.

The Parry Inquiry noted that the general subsidy for rail was around 20 cents per passenger kilometre, which was close to the externality cost it identified with road use of 15-20 cents per vehicle kilometre. It noted that the subsidy was broadly in line with the social benefits if travel generated by CityRail passengers 'replaces car travel'.[45] A critical question is whether the general subsidy does in fact result in CityRail travel that replaces car travel.

Providing an operational subsidy to CityRail lowers the generalised price of rail travel relative to other modes of transport.[46] As a result, more people choose to use CityRail's services but not all of those people would have otherwise travelled by car. There is much evidence to suggest that commuters' responsiveness to changes in the relative price of rail and car is low and does not lead to major shifts in commuter's choice of travel mode, at least for moderate changes in the relative price. For example, IPART (1996) indicates that a 5 per cent increase in commuter rail fares leads to a 0.07 per cent increase in car travel.[47] This suggests that using train subsidies to target altered behaviour by car commuters may only have a negligible effect.

IPART is concerned that previous measures of the avoided social cost of road use may overstate the associated social benefits of rail use. IPART notes that the avoided social costs (social benefits) arise only to the extent that the government is able to induce people to use CityRail who would otherwise travel by car. In the absence of the government's operational subsidies, even if CityRail's fares were cost-reflective (and most likely higher) some passengers may still choose to use CityRail's services. 'General' subsidies do not generate any avoided social costs of road use from these passengers. In addition, the lower generalised price may induce some people to use CityRail's service who would not have otherwise travelled by car. It is inappropriate

45 Parry, T, *Ministerial inquiry into sustainable transport in New South Wales*, 2003, p 90.

46 A subsidy may not always lower the actual fare but it should lower the 'generalised price' of travel, which may include changes in the quality of service and the monetary value of the cost of travel time.

47 IPART, *Estimation of public transport fare elasticities in the Sydney Region*, Research Paper No. 7, October 1996.

to include the trips made by these commuters as reflecting any avoided cost of road use.

As part of its review of CityRail's regulatory framework, IPART will be engaging a consultant to provide it with advice on the social costs and benefits arising from the provision of CityRail's passenger rail services. IPART will utilise this advice in developing a framework to estimate the social costs and benefits arising from CityRail's passenger services, and to use this framework to derive the appropriate contribution by the government and users.

IPART seeks comment on the following:

12 What is an appropriate framework for determining the share of CityRail's costs between users and the government?

13 Has IPART identified the main social benefits and social costs (that is, externalities) associated with the provision of CityRail's services?

14 How can the social costs and benefits be quantified and what is their likely magnitude?

15 Has the magnitude of social costs and benefits changed over the last ten years?

16 What is the best way to address these social costs and benefits? To what extent do they provide justification for the government to share some of the costs of CityRail's regular passenger services? Alternatively, should more attention be given to other approaches to increasing rail patronage and capturing the net social benefits of rail, such as increased rail service quality and frequency?

7 Options for an alternative regulatory framework

IPART is currently considering the appropriate scope of CityRail's regulatory framework. It has identified three options for an alternative regulatory framework, all of which involve determining CityRail's revenue requirement. Section 7.1 outlines IPART's view on the scope and lists the options for the regulatory framework. Sections 7.2 to 7.4 explain each option, and discuss strengths and weaknesses in light of the assessment criteria outlined in Chapter 2. Section 7.5 discusses the demand for CityRail's services in the future. Section 7.6 discusses the options for converting the revenue requirement into fares and section 7.7 discusses the appropriate length of the determination period. Finally, section 7.8 discusses the need for staged implementation of any alternative regulatory framework.

7.1 Scope of the regulatory framework

Economic regulation of CityRail's passenger services could cover a number of different areas:

1. **Investment** in the network, and in rolling stock, in order to provide an appropriate quality and quantity of train infrastructure, in the right location. Ensuring efficient investment requires an assessment of the social costs and benefits of different options, and would include a comparison of different types of transport (such as buses, roads and trains). (This is known as dynamic efficiency.)
2. **Maintenance** of the network and rolling stock, and **operation** of stations and train services. Ensuring that services of the required quality are provided at minimum cost is known as productive efficiency.
3. **Use** of the network, including the mix of services provided, and the service schedule. The structure of fares can have a significant impact on the efficient use of the network. (This is known as allocative efficiency.)

The regulatory framework adopted may focus to a greater or lesser extent on each of these areas. Furthermore, different forms of regulation may emphasise different objectives for each of these areas. For example, in those areas where RailCorp is not the effective decision-maker, IPART's regulation may focus on increasing transparency in order to improve the accountability of decision-makers. This could apply, for example, in the area of network investment, where decisions are made or heavily influenced by government rather than RailCorp. RailCorp has greater discretion over operating and maintenance expenditure, and so IPART's regulatory framework may aim to more directly influence this expenditure, by providing incentives for improving cost efficiency. In the area of fares and network usage, the

regulatory framework needs to be mindful of NSW Government policy in addition to economic efficiency goals – for example the assessment criteria set out in Chapter 2 include consistency with policy objectives to increase patronage and the capacity of users to pay.

IPART has reviewed regulatory approaches used in public transport fare regulation nationally and internationally. It has found that generally the form of regulation used is less independent and transparent than that currently used by IPART for non-rail price regulation. Typically, fare regulation is still undertaken by government departments, such as the transport ministry, or by local governments. Similarly, network investment decisions are more frequently the preserve of governments.

The area where the regulation has most often sought to provide incentives for efficiency has been in operating and maintenance expenditure (that is, productive efficiency), where the form of regulation has sought to minimise the cost of providing a defined level of services. Often these incentives have been provided through competitive tendering of some form.

IPART has identified three broad options for the regulatory framework, which are discussed in the following sections:

1. The building block approach used by IPART in the regulation of other industries (for example, energy and water).
2. An operating and maintenance cost approach, which has been used internationally.
3. A long run marginal cost approach, which has been used by some regulators both in Australia and abroad.

IPART is also seeking stakeholders' suggestions on alternatives to these approaches.

Regardless of the regulatory approach adopted, an adjustment path - possibly over several regulatory periods – is likely to be required if CityRail's current revenue does not meet the revenue (or efficient cost) requirement established under the new regulatory approach. A key question for this review is what share of costs users and the government should pay . This is discussed further in chapter 6.

7.2 Building block approach

IPART uses the building block approach in most other industries it regulates. The building block approach "builds up" the revenue required by the business to cover the costs of providing services of a defined standard. It uses forecasts of capital and operating expenditure, depreciation and a rate of return on assets to calculate the revenue requirement.

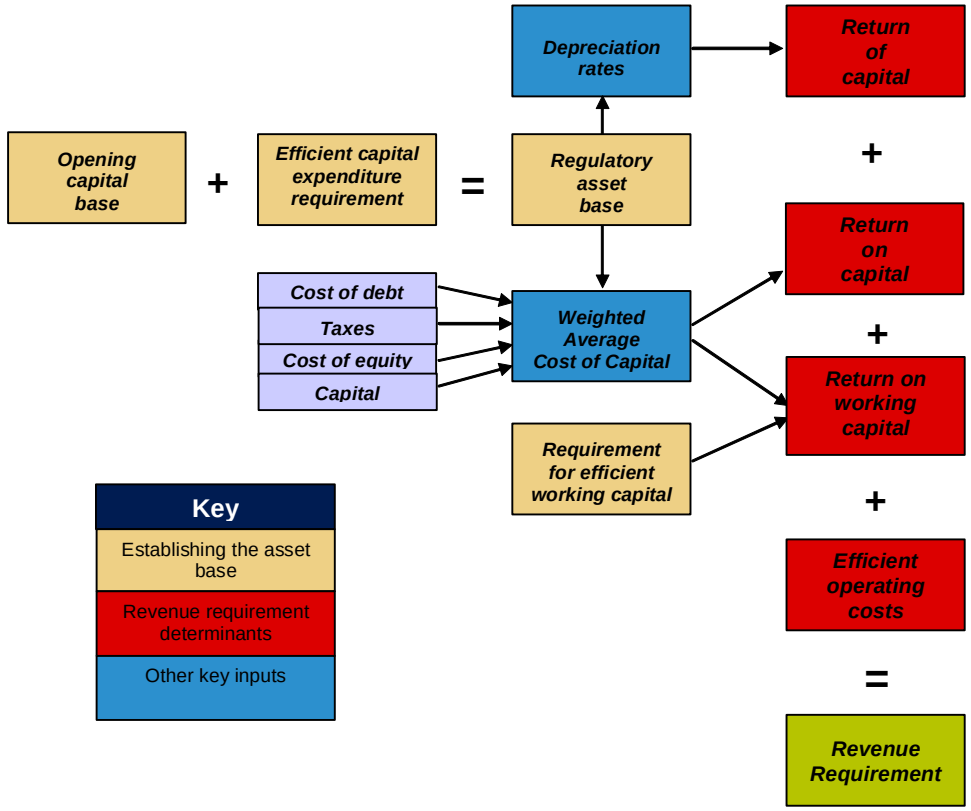
The building block approach can accommodate CityRail circumstances where users are not required to meet the full cost of providing the services. For example, IPART could use the building block approach to model CityRail's costs and determine the appropriate revenue requirement. It could then determine the appropriate amount of this required revenue to be paid by users through fare revenue and government in the form of subsidies. This decision would incorporate issues such the external benefits of rail and concession fare funding from government and would require a supplementary analytical framework.

IPART could also determine the appropriate allocation of costs between the government and users up front and use the building block approach to determine the revenue requirement for fare revenue alone. Under this approach the users' share of each of the building blocks (to be discussed below) would need to be identified. A further variant could be that IPART decides to split CityRail's network by sub-network (ie, suburban, intercity and regional) or by line (eg, Eastern Suburbs and Illawarra) and use the building block approach to determine a revenue requirements for each individual sub-network and line. Then IPART would determine the amount of this required revenue to be paid by users through fare revenue and government in the form of subsidies.

The building block approach has been used by IPART as a central part of an 'incentive-based' regulatory approach. This approach aims to provide businesses with incentives to reduce costs by fixing revenue (or prices) over a defined regulatory period, and sharing the benefits of any efficiency gains between the business (through increased profits) and customers (through lower prices).

The steps in identifying the revenue requirement are discussed below and illustrated in Figure 7.1.

Figure 7.1 Overview of the process to identify the revenue requirement



Source: IPART.

7.2.1 Defining the Regulatory Asset Base (RAB)

Prior to establishing the RAB it is important to define what the RAB represents. There are two views on how the RAB should be defined:[48]

- **financial capital** — shareholder investments in the firm (that is, the maintenance of financial equity of the business in real terms) or
- **physical capital** — physical assets of the firm (that is, the ability of the enterprise to maintain production of the same level of goods and services over time).

48 IPART has previously considered these views in, for example, IPART, *Rolling forward the regulatory asset bases of the electricity and gas industries*, Discussion Paper DP-31, January 1999.

The decision will primarily affect IPART's decision regarding the return of capital. The major difference is that under a physical capital view the RAB is subject to periodic revaluations, which are based on the depreciated optimised replacement cost (DORC).[49]

7.2.2 Establishing (and maintaining) a RAB

Under the building block approach an opening value of the RAB needs to be determined. Some of the options include:

- drawing a 'line in the sand' and valuing CityRail's existing assets at a level defined by IPART; or
- a depreciated optimised replacement costs (DORC) valuation.

The 'line in the sand' approach helps to ensure that only new and efficient capital investment is paid for by consumers. An advantage with the approach is that it appropriately reflects that many of CityRail's assets may represent a legacy of previous capital expenditure by the government. The 'line in the sand' approach would also be likely to avoid (or lessen) the price implications of front loaded cost recovery.

A DORC valuation is an estimate of the value of an asset in use that is equivalent to the net current cost of replacing the asset in its current state with an asset which has similar service potential (that is, output or service capacity). It has the advantage of excluding any unused or under utilised assets beyond the specified planning horizon, and allowing for potential cost savings which may have resulted from technological improvement. However, a major disadvantage with obtaining a DORC valuation is that optimisation is a matter on which there may be scope for a wide range of alternative views.

CityRail would receive a return *of* capital (that is, depreciation) and a return *on* capital for assets in the RAB. It would also receive returns on and of capital for any forecast new capital expenditure added to the RAB during the regulatory period (see section 7.2.3 below).

IPART seeks comment on the following:

17 If a 'line in the sand' approach were adopted by IPART what considerations should influence where the 'line' is drawn?

[49] See discussion on DORC below.

7.2.3 Establish efficient capital and operating cost forecasts

For other industries, the regulated business typically provides IPART with forecasts of its future capital and operating costs. These forecasts are the subject of an efficiency review by IPART (usually with the assistance of an expert, independent consultant). Often the forecasts provided by the regulated business are adjusted to reflect the outcomes of the efficiency review and it is these revised values which are included in the building block model.

One issue that needs to be addressed is how capital expenditure will be assessed and incorporated when RailCorp does not have primary responsibility for investment decisions, as is the case with network expansion. This is central to fare outcomes for passengers. Some options are to include the efficient costs of:

- the investment in the regulatory asset base without IPART making an assessment of whether it was a "prudent" investment. This approach recognises that RailCorp does not have complete discretion over investment decisions, but passes through the cost of investment to users whether they are prudent or not.
- "prudent" investments (as assessed by IPART), which implies the government will fund the balance for such investments.

A further consideration is whether the value of investments included in the RAB should be adjusted to recognise the net social benefits (also known as externalities) arising from CityRail's services. In effect, this would mean that when new investment was assessed, a social cost-benefit analysis would be undertaken to identify the extent to which the investment would generate net benefits to society more broadly, rather than just rail passengers (for example, by reducing road congestion or pollution). The asset value included in the RAB could be adjusted downward so that RailCorp was not required to recover the full cost of the investment through fares. Alternatively the full asset value could be included, but a proportion "tagged" to reflect the net social benefits, and their value excluded from the building blocks used to calculate the revenue requirement.

7.2.4 Determine the depreciation allowance

Depreciation is the amount of the asset used in each period. Depreciation is calculated by breaking the asset base into different asset classes and assigning asset lives to each asset class.

In the past, IPART has adopted a straight-line depreciation methodology to calculate the return of capital (depreciation) allowance. IPART has previously stated that it: 'believes this approach is superior to alternatives in terms of simplicity, consistency and transparency'.[50]

50 For example, IPART, *Prices of water supply, wastewater and stormwater services*, June 2005, Sydney, p 77.

7.2.5 Determine an appropriate return on capital on the assets included in the RAB

The rate of return is provided to the regulated business in recognition of the opportunity cost of investing in capital. The rate of return reflects the fact that this money could be invested in alternative income-generating assets for which the regulated business would earn a rate of return. In other industries IPART applies a rate of return on both the RAB and working capital (for example, inventories or work-in-progress). The rate of return would be established using the Weighted Average Cost of Capital (WACC) approach,[51] which is consistent with IPART's approach in other industries.

7.2.6 Assessment of the Building Block Approach

Overall the key advantages of using a building block approach over the current form of regulation are that it would:

- Show how much revenue is required to provide CityRail's services.
- Identify the efficient costs of providing CityRail's services, thereby highlighting areas of potential efficiency savings.
- Require CityRail to rigorously forecast its capital and operating costs. These would become targets against which CityRail's performance could be measured in the future.
- Lead to greater efficiency as CityRail has the incentive to improve its financial performance — if it can achieve efficiency savings in excess of the forecast it keeps the additional revenue (depending on what happens to its Government contributions).
- Provide financial performance targets for management to which they can then be held accountable.
- Encourage more rigorous investment appraisal.
- Enable the government to identify the appropriate amount of public funding which should be provided to CityRail. It should also provide CityRail with greater revenue certainty as it would forecast future efficient operating and capital and closely link these to fares.
- Provide a transparent link between fare changes and efficient costs.
- Lend itself to longer regulatory periods and multi-year price paths.

The building block approach has some disadvantages. It is more costly to implement (both for IPART and for CityRail) as it is a more intensive form of regulation. It also relies on CityRail providing much more information then is provided under the

[51] There are a number of input parameters to consider in determining an appropriate WACC. Some of the parameters used in the WACC calculation are dependent on current market rates (interest rates, inflation and the debt margin). Some of the parameters are business or industry specific (equity beta, capital structure and debt margin) while several other parameters are not business or industry specific (market risk premium, tax rate and the dividend imputation factor).

current regulatory framework. A building block review takes around 12 months to complete requiring additional resources from CityRail, IPART and stakeholders.

The success of the building block approach is dependent on the commitment of the key stakeholders to the process. Without adequate information the approach will not work. It also requires a commitment from CityRail's voting shareholders, on behalf of the government, to hold CityRail accountable for its financial performance through tight budgetary and funding controls. The building block approach will not have any positive 'behavioural' effects on CityRail if cost overruns are automatically funded by taxpayers.

The move from an annual revenue requirement to individual fares will require careful consideration. However, IPART has experience in developing cost of supply models which allow this to occur. The building block approach would also need to take into account the appropriate cost sharing ratios and concession fare funding. Again IPART considers that such issues can be overcome, as was done in IPART's bulk water decision, but will add to the complexity of the regulatory approach.[52]

In principle, users should only be required to pay (through returns on and of capital) for capital expenditure decisions made by either CityRail or the government if they are commercially efficient. The prudence and efficiency tests provide an effective mechanism for filtering out non-commercial projects and assessing the efficiency of CityRail's capital expenditure.

7.3 Operating and maintenance cost approach

Under the operating and maintenance cost approach, the government would provide all below rail infrastructure while passenger fares would seek to recover the appropriate share of the operating and maintenance costs. The extent to which fares pay for operating and maintenance costs would depend on the appropriate cost sharing ratios, as discussed in Chapter 6, and the government's contribution to below rail costs.

One jurisdiction that uses this approach is Singapore, where the independent Public Transport Council (PTC) set the fares for passenger rail services through an annual fare review process. The government does not provide direct subsidies for public transport operations. However, to keep public transport fares affordable to the general public, public transport infrastructure is funded entirely by government. That means train operators are only responsible for operating and maintenance costs, and investments in service improvements. Notably, unlike CityRail, both rail operators in Singapore generate sufficient fare revenue to cover their costs under this regulatory approach.

52 IPART, *Bulk water prices for State Water Corporation and Water Administration Ministerial Corporation*, Sydney, September 2006.

Singapore's annual fare review process is based on the following fare adjustment formula[53], which calculates the maximum adjustment to the fare from the previous year:

Maximum Fare Adjustment = 0.5CPI + 0.5WI – 0.3%

where:

- CPI refers to the change in Consumer Price Index from the preceding year;
- WI refers to the change in Average Monthly Earnings from the preceding year (adjusted to account for any change in the employer's superannuation contribution rate); and
- 0.3 per cent is the pre-set productivity extraction for the next three years. This rate is based on the sharing of achievable productivity gains (estimated to be 0.6 per cent per annum between 1997 and 2002).

The formula is valid for three years from 2005, at which time the relative CPI and WI weights will be reviewed and recalibrated as necessary to reflect changes in the public transport operator's cost structure. The productivity extraction of 0.3 per cent will also be reviewed and adjusted based on the updated average productivity figures of the public transport operator.

Such an approach could be used in two ways:

- IPART could determine a fixed formula which it applies each year when making its fare decision for CityRail as is done in Singapore. While such an approach would be relatively straightforward, it may not be reflective of changes in CityRail's operating and maintenance costs or costs incurred in improving service levels.
- IPART could go with a more detailed approach whereby CityRail forecasts its cost changes which are then assessed by IPART with the assistance of an expert independent consultant. This would be similar to the cost efficiency reviews undertaken under the building block approach except it would focus on operating costs alone. The cost forecast could be extended beyond 12 months so that the regulatory period and fare decisions could be for greater than 12 months.

53 This formula compensates the public transport operators (PTOs) for structural cost increases in their operating expenditure, while also ensuring that commuter interests are protected through the extraction of the productivity component (which provides PTOs with an incentive to improve operational and cost efficiencies). The PTC protects commuter interests further through its comparison of PTOs' return-on-total-asset (ROTA) values, which are compared against the values of other similar risk industries as part of the annual fare review exercise. Moreover, since wage movements are now accounted for annually, the formula is also more responsive to the actual economic conditions faced by commuters in general see PTC's website www.ptc.gov.sg for more details.

The Singapore approach is based on the assumption that the existing level of recovery of operating costs from fares is reasonable. The PTC then compensates operators for changes in such costs. The Singapore approach would need to be amended for application in Sydney were IPART to decide on changes to the present level of cost recovery.

7.3.1 Assessment of the operating and maintenance cost approach

IPART considers that the operating cost approach to regulation has several advantages.

- The form of regulation has a clear objective. Fare revenue funds operating and maintenance costs, and costs associated with service improvements. These costs are the responsibility of operators. The government funds and provides the capital infrastructure necessary for the operators to provide the services. It therefore determines the appropriate cost sharing ratios and revenue required to cover CityRail's costs.
- The form of regulation takes into account productivity and efficiency gains for operating costs and passes a share of these onto users. It would create an incentive for CityRail to pursue productivity improvements, through the attainment of higher levels of efficiency.

The form of regulation is not without its disadvantages.

- The approach will only target efficiencies for operating costs. It would not directly impact on capital costs as these would be provided by the government. This approach implicitly assumes that government should fully fund CityRail's capital expenditure. CityRail has a large capital expenditure program separate to infrastructure investment funded by the government and it is not clear whether the operating and maintenance approach provides appropriate incentives to CityRail for their capital expenditure.
- If the fixed formula approach was adopted, the ability of the formula to accurately capture all CityRail's costs movements may be limited. If operating and maintenance costs rise beyond the rate determined through application of the formula the full cost recovery of operating and maintenance costs would not be achieved, creating a revenue shortfall.
- Unlike Singapore, CityRail fares do not, at present, fully recover its operating expenditure.[54]

54 Farebox cost recovery is enhanced in Singapore through Government policies, such as road pricing, that make it more difficult or more expensive to drive.

7.4 Long run marginal cost approach

Marginal cost refers to the change in total costs that occurs from a small change in output. In the context of CityRail, the marginal cost might be thought of as the additional cost incurred by CityRail for providing one additional passenger journey. Marginal costs may vary significantly across the network due to customer type, geographic location or the time (for example, peak or off-peak).

Pricing at marginal cost (including the costs to society as a whole) is considered to be efficient because customers will compare the benefit they receive from a good or service with a price that reflects the cost to society of producing it. Marginal cost is a forward-looking concept in that it takes into account the future costs of production, rather than the 'sunk' costs that have already been incurred (for example, the cost of putting in place the existing network).

Marginal costs can be considered from both a short-run and a long-run perspective. In the short-run, a firm cannot alter is capital inputs. The Short-Run Marginal Cost (SRMC) is the additional cost that occurs due to a change in demand, holding the level of capital-related capacity (for example, rolling stock) constant. In the long-run, the firm has the ability to invest in capacity (for example, through network augmentation). Therefore, the Long-Run Marginal Cost (LRMC) is the additional cost of meeting demand when labour, capital and other factors of production can be varied. The LRMC is equal to the SRMC plus the marginal cost of capacity (MCC).

A regulatory approach that set prices equal to the LRMC would encourage economic efficiency through providing appropriate incentives for long-term decisions by passengers (such as the location of house purchases). It will also provide signals for the need for future investment by CityRail in the network. Pricing at LRMC may involve some trade-offs in the short-run (for example, where there is substantial and enduring excess capacity or where there is a short-term shortage of supply), but it offers greater price stability than pricing at SRMC, and provides better signals for long-run decision-making.

However, a regulatory approach based on LRMC is likely to encounter some practical difficulties, particularly with the estimation of the MCC. For example, a LRMC approach requires long-term (20-25 years) forecasts of patronage, capacity-related capital expenditure, other capital expenditure and operating expenditure to determine prices. Therefore, CityRail would be required to determine their long-term investment needs and, as with the building block approach, IPART would need to review the efficiency of the program (with the assistance of an independent expert).

An additional issue is that marginal cost pricing provides no guarantee that revenue will match the cost of supply. This is because, once infrastructure has been built, the cost of providing additional service may be relatively small. In contrast the average cost of supplying the service for that level of output may be significantly higher. A range of approaches have been adopted in other industries to 'top up' any revenue

shortfall while minimising efficiency losses – for example by marking prices up more to those customers whose demand is relatively inelastic (that is, whose decisions will be least affected by an increase in price). In the context of CityRail, it is also important to consider the extent to which the social benefits that arise from rail services mean that fares are not expected to cover total costs of supply.

7.4.1 Assessment of the LRMC Approach

In principle a pricing approach that reflects LRMC has the potential to provide incentives for the efficient use of passenger rail services, and efficient investment decisions. However, given that CityRail is not operating in a purely efficient market it is not clear that the LRMC approach alone would provide CityRail with sufficient incentives to pursue cost efficiencies within its operations. A regulatory approach based on LRMC may prove complex and create regulatory uncertainty. On the other hand, if IPART has sufficiently robust estimates of the efficient operating and capital costs required for CityRail's operations the LRMC approach may encourage an economically efficient outcome.

IPART seeks comment on the following:

18 Which approach to fare determination is more appropriate for the regulation of CityRail? Do stakeholders have any other approaches which they consider to be viable alternatives?

19 If a building block approach was adopted how should the RAB be set?

20 What is the appropriate rate of return for CityRail's capital investments?

21 If an operating cost approach was adopted, would stakeholders prefer yearly review based on a fixed formula or longer fare determinations and regulatory periods based on more detailed analysis of CityRail's specific costs?

22 Are there alternative regulatory approaches that could meet IPART's assessment criteria more effectively?

7.5 Demand for CityRail's services in the future

The future demand for CityRail's services will be an important part of IPART's review. IPART considers that CityRail should have the incentive to increase patronage as a means to raise additional revenue. Demand or patronage forecasts are also important for regulatory approaches such as the building block discussed above.

Once a revenue requirement has been established using one of the regulatory approaches discussed above, IPART requires patronage forecasts to determine individual fares. The patronage forecasts assist IPART to calculate the fare change necessary to provide CityRail with sufficient revenue to meet the revenue requirement. Typically, such patronage forecasts are underpinned by demographic

trends, changes to household income and several other factors (for example, the price of petrol).

When IPART considers patronage forecasts it is also important to consider the effect that changes to fares have on the demand for CityRail services. IPART uses measures of consumer responsiveness (known as 'elasticites') to estimate the effect that fare changes have on users' travel behaviour.[55]

In some cases changes to individual fares can induce users to switch from one ticket type to another. For example, if the discount for off-peak return tickets is increased relative to the price of a peak return ticket then it may cause some users to shift their travel to the off-peak period.[56] For this reason, IPART would develop patronage forecasts for each of CityRail's different ticket types.

In examining the options for the regulatory framework IPART will consider the relative incentives each option provides for RailCorp to increase patronage.

7.6 Options for converting the revenue requirement into fares

The process of setting actual individual fares is defined by the IPART Act. In determining fares section 13A(1) requires IPART to either:

- fix the maximum price for the government monopoly service
- set the methodology for fixing the maximum price for the government monopoly service.

Section 13A(2) states that: 'IPART may not choose to make a determination that involves setting the methodology for fixing a maximum price, unless IPART is of the opinion that it is impractical to make a determination directly fixing the maximum price'. Therefore, in reviewing the regulatory framework, IPART must consider whether there is a more effective system for determining maximum fares for each of CityRail's ticket types.

Determining maximum fares for each individual ticket may reduce CityRail's incentives to properly respond to signals from its customers. It may be the case that providing CityRail with greater power to set individual ticket prices would encourage CityRail to increase its focus on its customers. There are two main alternatives to setting maximum fares:

55 See chapter 8 for a discussion about elasticities.

56 The *cross price elasticity* measures the responsiveness of consumers to changes in the *relative* price of different CityRail tickets.

- **Weighted average price cap** — IPART sets a cap on the weighted average increase in fares. The cap would be set based on the (percentage) increase in the annual revenue requirement. Each ticket type requires a weighting, with the weights typically based on patronage (or revenue) forecasts. The authorities would have the freedom to set fares provided that the weighted average fare increase is below the price cap determined by IPART.

  Under the approach, IPART could set limitations on the amount by which any individual fare may change. Fare rounding may complicate the price cap approach and IPART may be required to determine initial unrounded fares.

- **Revenue cap** — the annual revenue requirement is used to determine the total maximum regulated income that CityRail is permitted to earn on its passenger rail services. CityRail would then develop a set of prices that would permit it to earn this amount (based on its patronage forecasts for each ticket type). The revenue cap requires a correction mechanism to adjust for forecast errors. One such mechanism is an unders and overs account, where each year any variation between the annual revenue requirement and actual revenue would be recorded and entered into the account. Typically, a regulator would impose an interest charge or credit to the account. If the notional balance of the account exceeds, or falls below, a prescribed level then CityRail would be required to adjust its fares so as to bring the account balance back into the prescribed range.

Either of these approaches would encourage CityRail to better understand its customers' responsiveness to changes in fares. They would both provide CityRail with an incentive to develop a stronger commercial, more customer-orientated focus and, in particular to develop an understanding of the drivers affecting its customers' decision to use its services. Moreover, allowing CityRail to determine individual fares would provide it with more scope to manage its services in an effective, efficient and financially responsible manner.

A pricing policy statement, which outlines pricing principles, would allow IPART to ensure that CityRail did not inappropriately price specific tickets if either a weighted average price cap or a revenue cap were adopted. The pricing principles approach has effectively been used by IPART for regulating electricity distribution network service providers.[57] It is likely that any pricing principles would require prices be set so that they signal the economic costs of service provision (that is, they minimise cross-subsidisation). The pricing principles would also require CityRail to periodically review any cost data, cost allocations or service classifications that underpin pricing decisions.

57 For example, IPART, *NSW electricity distribution pricing 2004/05 to 2008/09*, Final Report, Sydney, June 2004.

IPART seeks comment on the following:

23 Are there any reasons why IPART should use a methodology other than setting individual fares? If so, should IPART determine a weighted average price cap and allow CityRail to set its own fares for individual tickets? Or are there other methodologies for fixing maximum fares that IPART should consider?

7.7 Length of the regulatory period

The building block approach lends itself to longer regulatory periods and medium-term price paths. Typically price decisions using a building block approach extend beyond one year up to five years. Medium-term price paths have advantages because they:

- Provide an incentive for CityRail to reduce its costs (as CityRail retains a portion of the revenue it gains through efficiency savings).
- Provide CityRail with a longer time period to achieve efficiency savings, therefore increasing the power of incentives to increase efficiency.
- Provide CityRail with greater revenue certainty which would allow for greater longer term planning.
- Allow IPART to transition from the outcomes provided under the current approach to those under a building block approach. Medium-term price paths enable price changes to be smoothed in over a number of years avoiding large changes in single years.
- Reduce the regulatory burden on CityRail, IPART and stakeholders.
- The operating cost approach could also provide for medium-term price paths.

A longer regulatory period provides CityRail with stronger incentives to pursue cost savings and efficiency improvements, albeit with a reduction in short-run allocative efficiency. However, the longer the regulatory period the greater the potential for inaccuracy in the required patronage and expenditure forecasts. A shorter regulatory period is likely to diminish CityRail's incentives to pursue efficiency improvements and would increase regulatory costs.

IPART seeks comment on the following:

24 What is the appropriate regulatory period: three or five years?

7.8 Need for staged implementation of the new regulatory framework

All the regulatory framework options discussed above require fundamental changes for CityRail, the government and users. The scope of such changes may create implementation issues, which would mean that transition arrangements are required in moving from the current form of regulation to the new regulatory approach. The sections below discuss the likely transitional issues, and how they might be addressed.

7.8.1 Implementing fare changes over a number of years

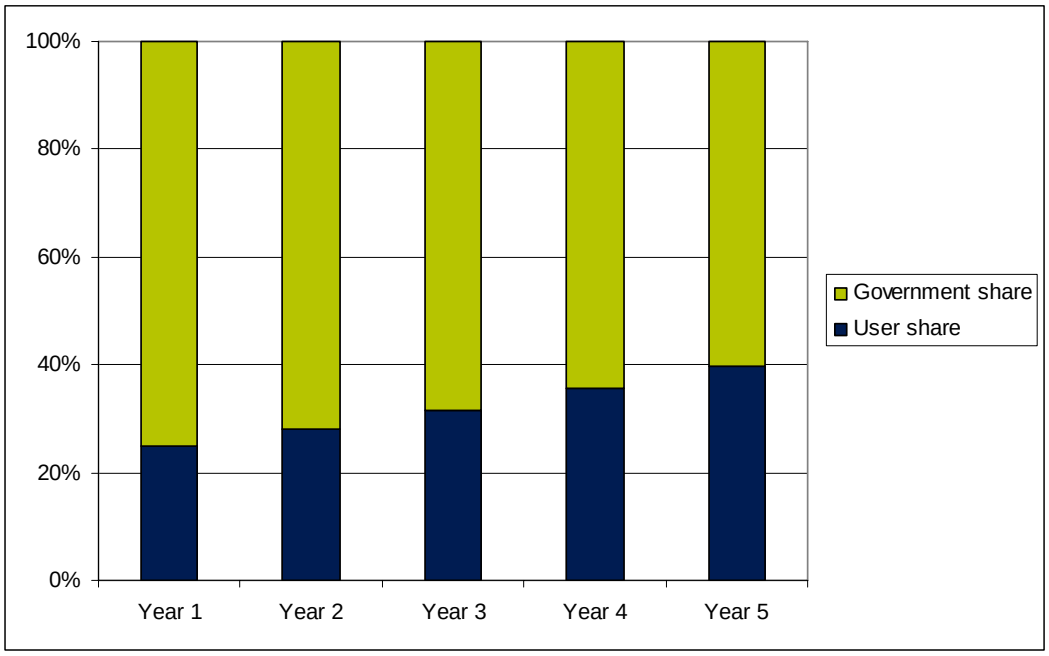
The most significant transitional issue is likely to be how to move fares from current levels to those consistent with the recommended regulatory framework. While the exact fare outcomes are unknown at this stage, and will depend on key findings such as the efficient costs of providing CityRail's services and the appropriate allocation of those costs between government and users, it is likely that fares will be increased over the coming years. The 2007 fare determination represented IPART's first step towards the new approach. The question now becomes how quickly fares should be increased once a new regulatory framework is implemented.

For example, if IPART's review finds that current cost allocation levels are inappropriate and that users are paying too little, fares will need to increase. One option would be to increase fares in one year to achieve the appropriate cost allocations and have fares increases for each subsequent year maintain those levels. This option may be suitable if the required fare increase is of a moderate size. If on the other hand the fare increase required is substantial such an option may be unsuitable as significant one off fare increases could have a substantial impact on some users. Therefore, a better outcome in such circumstances could be to increase fares by a smaller amount over a number of years to achieve the same outcome. Such an approach is achievable under a multi-year price path (see Box 7.1 for a practical example of a transition path).

Box 7.1 Example of a five year transition path

If IPART's review finds that CityRail needs revenue totalling $100m per annum to provide its services and that the appropriate share to be paid by users through fares is $40m with the remaining $60m paid by government. Assume that user's current share is only $25m. To get from $25m to $40m in one year is an increase of 60 per cent, a substantial increase. If on the other hand such an increase was transitioned over five years with the 40 per cent ($40m/$100m) target share achieved at the end of the period the individual yearly increases would be much smaller — 12 per cent per year. Figure 7.2 illustrates the five year transition path.

Figure 7.2 Example of a five year transition path



Note: Figure is for illustrative purposes only.

Source: IPART.

The advantages of such an approach also extend to fare structure reforms. If the introduction of a new fare policy implied significant structural reform of fares, it may be prudent to implement the new fares over a number of years to ease the impact on users.

7.8.2 Phased introduction of the new regulatory framework

The regulatory framework options being considered by IPART are a substantial departure from the existing regulatory approach. IPART may make the decision to recommend parts of the new framework be implemented immediately with others introduced over time. An example is service standards where it is common for regulators to start by collecting information and releasing this to highlight performance. Over time regulators may then implement incentives regimes around

service standards to reward performance above target levels or penalise that below. In the other industries it regulates IPART has built in more complexity into the regulator framework as both it and the regulated business gain more experience and knowledge.

IPART seeks comment on the following:

25 Over what time period should IPART transition CityRail to the new regulatory framework?

8 Fare levels and fare structure

When setting public transport fares, IPART needs to consider both the level of fares and the structure of fares. Ideally, the public transport fare structure should be capable of raising sufficient revenue to cover the efficient costs of operating the services, less any government subsidy reflecting the external benefits that the provision of public transport affords the community as a whole. In addition, fares should be structured so that the recovery of costs is distributed in an equitable way among different users of the service.

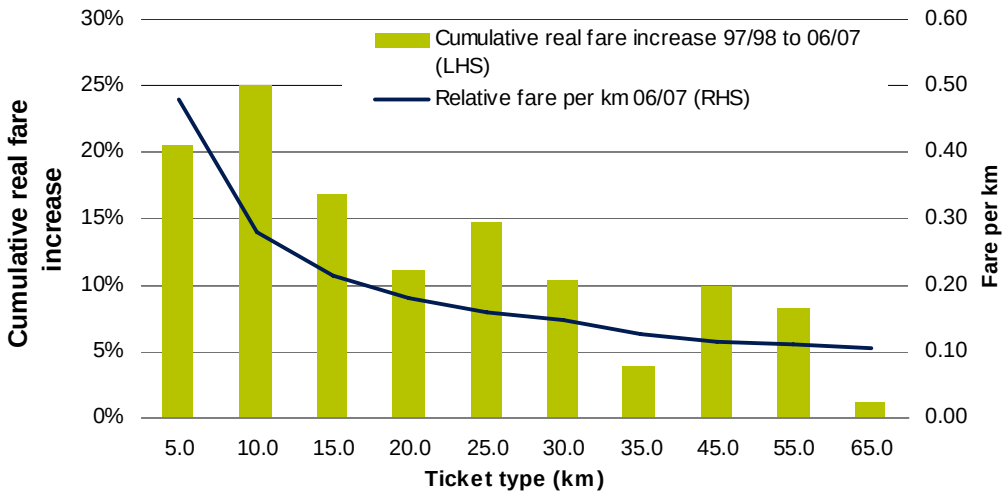
The Ministry of Transport has been tasked by the NSW Government to consider options for restructuring and simplifying public transport fares, including CityRail fares. This process is underway and has yet to be presented to the government for consideration. It will be important for IPART, the Ministry and RailCorp to work together to ensure that the outcomes of the respective reviews are consistent and practical.

The remainder of this chapter is structured as follows. Section 8.1 describes CityRail's current fare levels and fare structures. Section 8.2 provides some options for alternative fare structures. Section 8.3 discusses peak period pricing; section 8.4 considers the implications of fares on equity; section 8.5 discusses the likely effect of higher fares on the demand for public transport services; and section 8.6 considers the potential impact of integrated ticketing (that is, Tcard) on fare structure reform.

8.1 Current fare levels and structure

CityRail's current fare structure is largely distance based (Travelpasses are zonal), with distance categorised into 25 separate distance bands. Figure 8.1 demonstrates that adult full fare passengers travelling shorter distances pay more on a per kilometre basis then those travelling longer distances. In part, the difference in per kilometres fares is likely to reflect the high fixed costs associated with providing passenger rail services (for example, the cost of providing rail infrastructure). Such fixed costs need to be recovered regardless of the distance travelled.

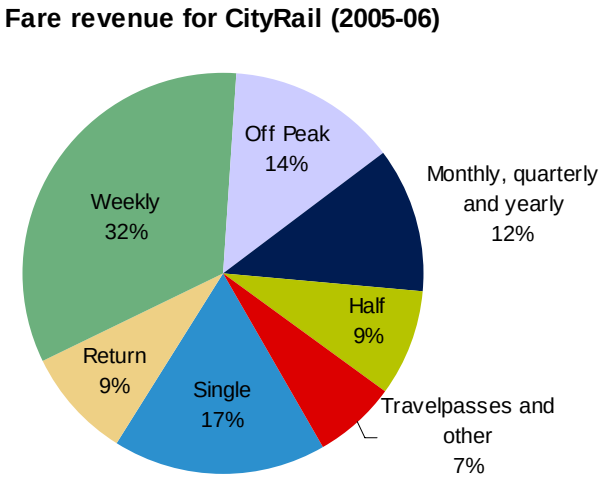
Figure 8.1 CityRail adult full fare per distance travelled (single tickets)



Source: IPART CityRail fare determinations for fare increases and relative fare per km. Change in the CPI sourced from the ABS, calculated using all capitals quarterly index numbers, year on year and the Fisher equation.

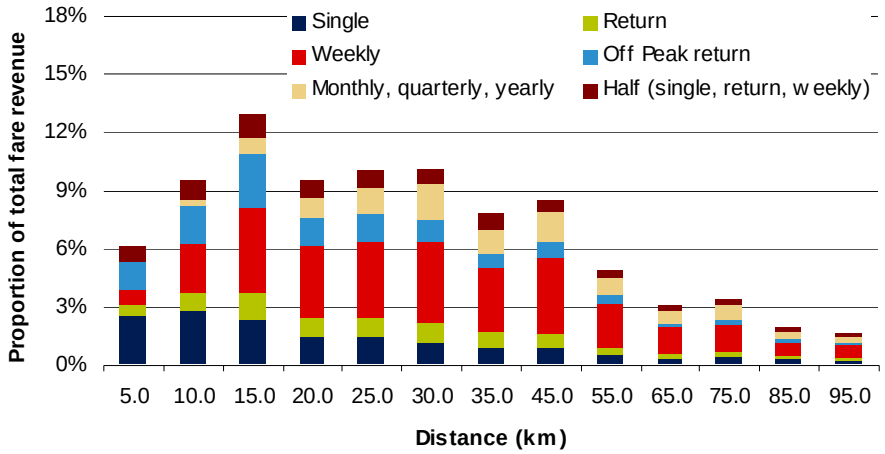
Currently, CityRail derives a major portion of its fare revenue (32 per cent) from weekly tickets (Figure 8.2), with weekly tickets popular for users travelling both long and short distances on the CityRail network (Figure 8.3).

Figure 8.2 Revenue by ticket type (2005/06)



Source: RailCorp, IPART.

Figure 8.3 Ticket type used by distance (2005/06)



Source: RailCorp, IPART.

CityRail also offers an off-peak return ticket which sells on average at a 30 per cent discount to the correspondent full adult return fare. These tickets are valid for travel outside the morning peak (which ends at 9am) and on weekends. As part of the 2005/06 fare review IPART considered the cost of providing off-peak services compared to the farebox revenue recovered from off-peak fares. IPART notes that up to a quarter of off-peak tickets are used to travel during the weekday afternoon peak period (that is, between 4pm and 6pm).

In submissions to recent fare reviews, calls have been made for fare reform. IPART agrees that a review of fare structures is required.

8.2 Options for alternative fare structures

IPART has identified several alternative fare structures, including:

- **Distance based** – fares based on actual distance travelled.
- **Flag fall plus distance based** – fares based on actual distance travelled plus a fixed flag fall for all each trip.
- **Fixed zones** – defined with reference to a number of geographical zones which remain fixed irrespective of where the ticket is purchased within the zone.
- **Time based** – for example, two-hour interruptible trips at a flat fare.
- **Flat price** – a flat price is charged for a trip irrespective of the distance travelled.

Each of these fare structures has its own strengths and weaknesses; Table 8.1 compares some of the advantages of the alternatives.

8.2.1 Distance based fares

A distance based pricing system would charge an increased fare per additional kilometre travelled. This is different from the current fare structure which prices fares according to 25 different distance bands.

8.2.2 Flag fall plus distance based fares

This pricing option recognises that some fixed costs do not vary with distance travelled, for example, each passenger uses one station to enter the system and another one to exit it regardless of the distance travelled. Under this option, fares would include a flag fall which would be the same for every trip regardless of the distance travelled. In addition, there would be a fare component reflecting the actual distance travelled.

8.2.3 Fixed zones

Under a zone based fare structure, one fare is payable in a specified geographical area. These geographical areas may be based on single zones or a combination of zones.

8.2.4 Time based fares

A time-based ticket is stamped with an expiry time when it is issued and the passenger journey must be completed by that time. Generally, time-based ticketing only works for single journeys. Periodical fares (for example, weekly tickets) would have to be either zonal or distance-based.

8.2.5 Flat price fares

A flat price fare structure is where a set price is charged for a trip irrespective of the distance travelled. An example is the New York subway where a single trip costs $2.

8.2.6 Comparing the alternative fare structures

Different jurisdictions have adopted different fare structures and no structure has proved clearly superior (see Table 8.1). For example, in Melbourne train fares are a mixture of time-based and fixed zones whereas Singapore uses a purely distance-based fare structure. In assessing the most appropriate fare structure for Sydney it is important to recognise the characteristics presented by Sydney's public transport system compared with overseas countries; such as, lower population densities, dispersed patterns of settlement and employment.

Ultimately, the fare structure should provide CityRail with transparent price signals that inform and complement the incentives created through the regulatory framework.

Table 8.1 Comparing the advantages of alternative fare structures

	Distance based	Flag fall plus distance based	Fixed zones	Time based	Flat price
Cost-reflective					
Operating costs	✓✓	✓✓	✓	✓	
Fixed costs		✓✓	✓	✓	
Minimises cross-subsidies	✓	✓			
Simple and transparent fare structure			✓	✓	✓
Geographically neutral	✓	✓			✓
Flexibility/convenience for users			✓	✓	✓
Possible to integrate with multi-modal tickets			✓	✓	

Source: IPART.

IPART seeks comment on the following:

26 Which fare structure or mix of fare structures is most appropriate for CityRail?

8.3 Peak period pricing

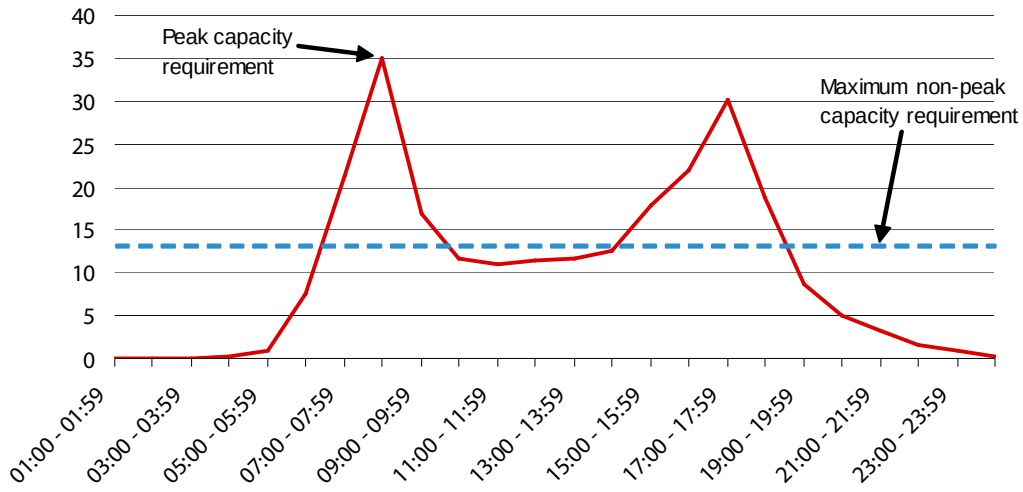
CityRail usage has two distinct periods of peak demand during the day (see Figure 8.4). The AM peak stretches from 07:00 to 09:59, while the PM peak lasts from 15:00 to 18:59. The Parry Inquiry notes: '[In the morning] school and business starting times are concentrated within a relatively short time span creating a peak in demand. Catering for this drives expensive investment in infrastructure that cannot be used efficiently outside the peak when demand for services is much lower'.[58]

In 2004/05, maximum demand at non-peak periods was 36 per cent of the peak demand capacity requirement (see Figure 8.4). Seventy per cent of passenger trips fell below the maximum non-peak capacity requirement. In principle, CityRail's fares should recover the (long run marginal) cost of this 'base' capacity requirement irrespective of the time of travel.

58 Parry, T., *Ministerial inquiry into sustainable transport in New South Wales: A framework for the future*, December 2003, p 66.

The majority of CityRail's costs relate to the requirement for capacity during the peak. In 2004/05, peak demand required CityRail to provide 180 per cent more capacity than was required during non peak periods. One approach to pricing, based on cost reflectivity, would be to link the cost of additional capacity with the users of that capacity. Under such an approach peak period fares would be higher relative to fares in the non-peak period, reflecting the significantly higher marginal cost of capacity and the higher (marginal) operating costs that CityRail faces during the peak period.

Figure 8.4 Passenger journeys ('000s) by time of day in 2004/05



Notes: The maximum non peak capacity requirement is the minimum capacity required to meet base demand.
Source: RailCorp, IPART.

IPART seeks comment on the following:

27 What is the appropriate difference between peak and off-peak fares?

28 Should IPART consider demand management (that is, encourage patronage to be spread more evenly throughout the day) when determining fares?

29 What other factors should be reflected in differences between peak and off-peak fares?

8.4 Equity considerations

An important aspect of public transport fare structures is equity. This means that people expect to pay a similar fare for similar services. Fare structures should aim to minimise cross-subsidisation where some customer groups are paying more in fares than the cost they add to transport agencies' operations, and some groups pay less in fares than the cost added to transport agencies' operations.

Fare structures may include targeted concessions for particular groups, such as pensioners. For CityRail, over the last four years, government subsidies on concession fares have increased substantially.

Table 8.2 Government subsidy for concession trips

	2003/04	2004/05	2005/06	2006/07
Total concession trips ($million)	80.4	77.7	78.6	79.8
Average subsidy per concession trip ($)	4.66	5.60	5.96	6.21

Source: NSW Treasury 2007, *Budget Statement 2007-08*, Budget Paper 3, Sydney, p 19-23.

8.5 Effect of higher fares on the demand for public transport

The extent to which existing users of public transport would respond to changes in public transport fares by altering their travel patterns is also referred to as price elasticities. In 1996, IPART commissioned Professor David Hensher of the Institute of Transport Studies to estimate price elasticities for public transport in the Sydney region[59]. Table 8.3 shows some of the results of the study. IPART notes that this study is now more than ten years old and the results may not be accurate anymore. It also notes that the results reflect short-term elasticities and that longer-term elasticities may be greater. IPART has recently commissioned an update of the elasticities study.

Table 8.3 Elasticities for commuter market

	Rail	Bus	Private cars
Rail	-0.25	0.004	0.009
Bus	0.009	-0.383	0.005
Private cars	0.015	0.007	-0.014

Source: Hensher and Raimond (1996).

These results suggest that:

A 10 per cent increase in commuter rail fares would result in:

- a reduction in commuter rail travel of 2.5 per cent
- an increase in commuter bus travel of 0.09 per cent, and
- an increase in commuter car travel of 0.15 per cent.

A 10 per cent increase in private car travel costs would result in:

- a reduction in commuter car travel of 0.14 per cent
- an increase in commuter rail travel of 0.09 per cent, and
- an increase in commuter bus travel of 0.05 per cent.

59 Hensher and Raimond, *Estimation of Public Transport Fare Elasticities in the Sydney Region*, 1996.

The updated elasticities study will also take into account:

- **own fare elasticities** – which explains the extent to which existing users of CityRail would respond to changes in CityRail fares by altering their purchasing patterns of CityRail tickets, and
- **service elasticities**, which explains the extent to which existing users of CityRail would respond to changes in service standards, such as reliability, by altering their travel patterns.

IPART expects that the updated elasticities study will provide some useful input into the assessment of an appropriate fare structure for CityRail.

8.6 Integrated ticketing

IPART is aware that the introduction of an electronic smartcard ticketing system may provide an opportunity to simplify and restructure fares across all modes of public transport.

IPART's current understanding is that:

- Tcard is a new smartcard ticketing system being developed for public transport in the Greater Sydney Metropolitan Area.
- The current official timetable for the rollout of Tcard to train, bus and ferry services is planned to occur in several stages and will commence in 2008.
- Tcard will be firstly trialled on selected bus services in the Sydney CBD and the inner west, with any expansion of trials considered once bus trials are successfully completed. Following successful trialling, Tcard will be rolled out across the Sydney Metropolitan area and to the Central Coast, Newcastle, the Hunter Valley, Wollongong and the Illawarra, Southern Highlands and Blue Mountains.
- Current ticketing systems will continue to operate until Tcard is fully phased in.

IPART is aware that a non-integrated ticketing system places a burden on commuters who have to use multiple public transport modes to reach their destination.

Appendices

A Terms of reference

Review of CityRail's regulatory framework

I, John Watkins, Acting Premier of New South Wales, refer under Section 12A of the *Independent Pricing and Regulatory Tribunal Act 1992* ("the Act"), refer to the Independent Pricing and Regulatory Tribunal (Tribunal) for investigation and report the following matter:

> IPART is to recommend a regulatory framework which will provide CityRail with the incentives to provide efficient passenger rail services.
>
> In conducting this review, IPART is to consider the matters listed under Section 15 of the Act, in particular the need for greater efficiency and reliability in the supply of services so as to reduce costs and improve quality, safety and reliability for the benefit of consumers and taxpayers.
>
> Other issues IPART is to consider in undertaking this review are:

1. the appropriate regulatory period for its fare decisions;
2. the efficient costs of providing CityRail's services and the scope for greater efficiency in the supply of these services;
3. NSW Government policy on passenger rail services and public transport, including the future investment in CityRail set out in the *Urban Transport Statement*, and the *State Plan*;
4. an appropriate range for the allocation of costs between government and users, taking into consideration the positive environmental, economic and social benefits for the community generated by CityRail's services;
5. how service standards can be incorporated into the regulatory approach;
6. appropriate fares for CityRail which takes into account the cost of providing CityRail's services, the capacity of users to pay and current and future government policy on public transport fares; and
7. if necessary, transitional arrangements from the current form of regulation to the new regulatory approach.

A draft report is to be publicly released by 31 May 2008, with a final report due by 30 September 2008 to the Premier.

B IPART Act requirements

Section 15 requirements

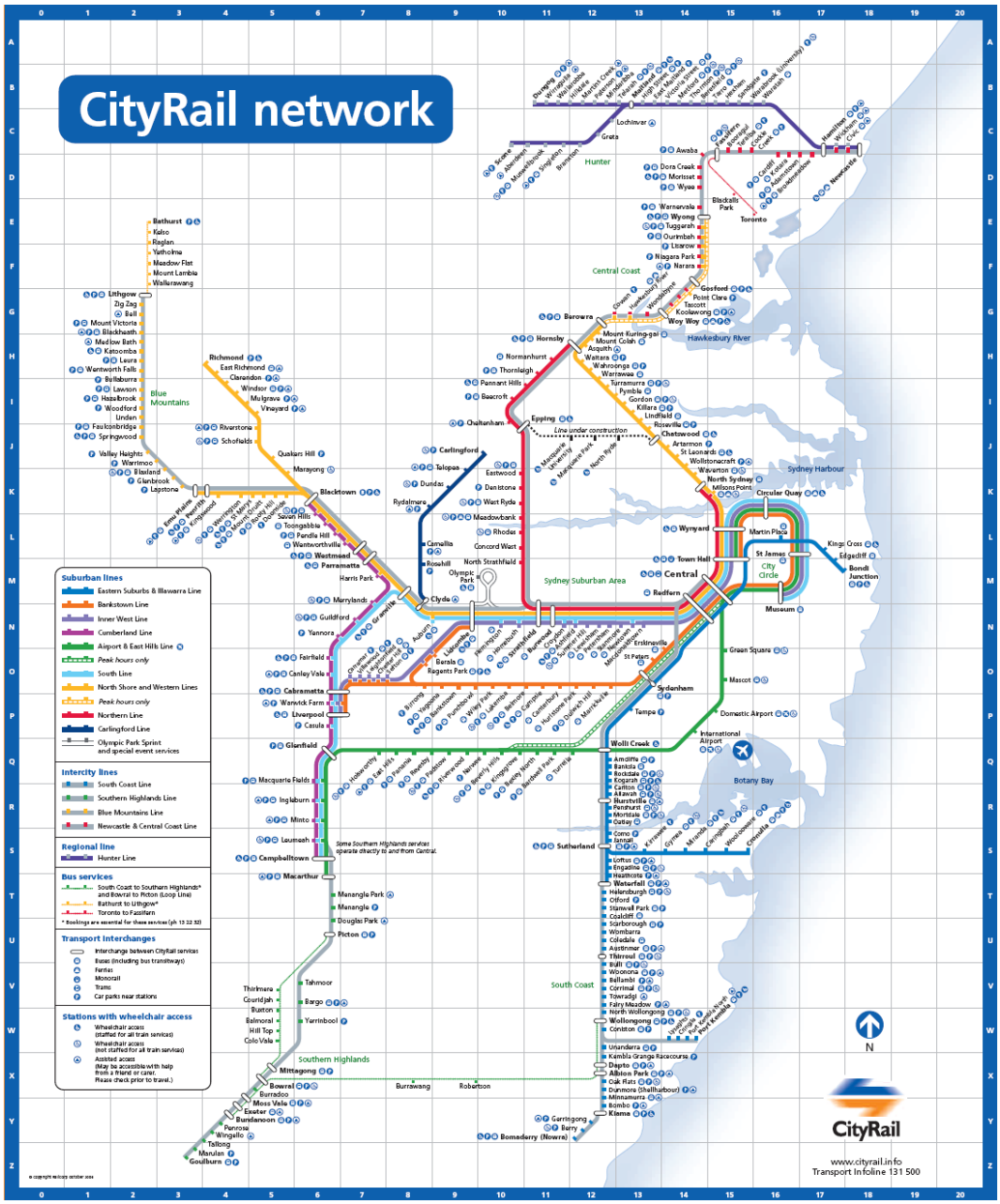
Section 15 of the IPART Act 1992 details the matters to be considered by IPART when making a determination. The section is reproduced in full below.

(15) Matters to be considered by Tribunal under this Act

1. In making determinations and recommendations under this Act, IPART is to have regard to the following matters (in addition to any other matters IPART considers relevant):
   a) the cost of providing the services concerned,
   b) the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standard of services,
   c) the appropriate rate of return on public sector assets, including appropriate payment of dividends to the Government for the benefit of the people of New South Wales,
   d) the effect on general price inflation over the medium term,
   e) the need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers,
   f) the need to maintain ecologically sustainable development (within the meaning of section 6 of the *Protection of the Environment Administration Act 1991*) by appropriate pricing policies that take account of all the feasible options available to protect the environment,
   g) the impact on pricing policies of borrowing, capital and dividend requirements of the government agency concerned and, in particular, the impact of any need to renew or increase relevant assets,
   h) the impact on pricing policies of any arrangements that the government agency concerned has entered into for the exercise of its functions by some other person or body,
   i) the need to promote competition in the supply of the services concerned,
   j) considerations of demand management (including levels of demand) and least cost planning,
   k) the social impact of the determinations and recommendations,
   l) standards of quality, reliability and safety of the services concerned (whether those standards are specified by legislation, agreement or otherwise).

2. In any report of a determination or recommendation made by IPART under this Act, IPART must indicate what regard it has had to the matters set out in subsection (1) in reaching that determination or recommendation.
3. To remove any doubt, it is declared that this section does not apply to IPART in the exercise of any of its functions under section 12A.
4. This section does not apply to IPART in the exercise of any of its functions under section 11 (3).

C CityRail network map



D Overview of the regulatory framework for Melbourne's metropolitan rail system

In the late 1990s, the Victorian Government decided to contract the private sector to operate and maintain the train and tram system. The government conducted a competitive tender for each franchise, and awarded them to 3 private sector franchisees for periods of between 12-15 years. Following the withdrawal of one of the franchisees, the government restructured the metropolitan train and tram system into one train and one tram franchise, and awarded the 2 current franchises to: Connex Melbourne Pty Ltd (train franchise); and MetroLink Victoria Pty Ltd (tram franchise).[60]

This appendix provides an overview of the regulatory framework for Melbourne's metropolitan rail system, in particular the arrangement between the State and Connex for providing metropolitan rail services. Section D.1 outlines the responsibilities for Connex as service provider, VicTrack as infrastructure owner and government. Section D.2 details the partnership agreement in which Connex as service provider is contracted to operate and maintain metropolitan rail services in terms of the passenger service requirements (PSR), payments between the State and Connex including the costs of operating and maintaining the system, the incentive framework and the allocation of risk.

D.1 Responsibilities under the Victorian model

The purchaser-provider model is designed to use contractual arrangements to introduce competitive elements (and/or greater transparency, accountability and incentives) into what essentially remains a publicly owned rail system.[61] Central to the purchaser provider model is the distinction between service provider and infrastructure owner. In adopting a purchaser-provider model the Victorian Government established VicTrack as a government business to own land and infrastructure used for public train and tram services.

In contracting the private sector a key decision for the Victorian Government was whether to vertically separate the network and operating functions as under the UK model. In contrast to the UK model the Victorian Government decided to lease the network infrastructure to the operators. Thus Connex is responsible for operating

60 However unlike in 1999, the government did not award the current franchises through a competitive tender process, instead choosing to negotiate bilaterally with Connex Melbourne Pty Ltd and MetroLink Victoria Pty Ltd. The five-year agreements started on 18 April 2004.

61 The purchaser provider model stems from traditional franchising theory, which argues that where "competition within the field" was impossible, an auction for the right to operate a monopoly franchise would allow "competition for the field".

and maintaining the above rail (rolling-stock etc) as well as the below rail network infrastructure (tracks, signalling and other infrastructure) elements of the rail system. However, given the length of the franchise the Victorian Government remains responsible for the long term condition of the assets.

Box D.1 outlines the responsibilities for Connex as service provider, VicTrack as infrastructure owner and government in the provision of metropolitan rail services.

Box D.1 Responsibilities in Melbourne's metropolitan rail system

Connex is responsible for:

- Day to day operations of trains including management of train drivers etc.
- Customer service including tickets sales, passenger security and station staff.
- Maintaining the electrified suburban **train network** in Melbourne. Connex out-sources this to a new company called MainCo (MainCo is 70% owned by Alstom and 30% owned by Connex). However the State is responsible for the long term asset condition.
- Maintaining the metropolitan electrified **train fleet** (rolling stock).[62] Connex out-sources this to AMTL (100% owned by Alstom Australia) and Siemens.
- Operating Metrol, the train control centre for all train and track vehicle movements over the electrified metropolitan rail.
- Shared ownership of Metlink (Yarra trams and Connex are shareholders of Metlink).[63]

VicTrack, as infrastructure owner:

- is not directly involved in the provision of passenger or freight transport services.
- leases out metropolitan train and tram infrastructure. Its assets include track, overhead, signalling, depots, stations, bridges, subways, service roads, Metrol (the central train control facility) and Electrol (the central electrical supply facility).
- VicTrack also owns the majority of rolling stock (trains and trams) that operate on the Melbourne suburban system (Connex owns a number of Hitachi trains which it owned under the previous franchise arrangements).

Government is responsible for:

- Paying operators to run the day-to-day services (the purchaser of rail services).
- Monitoring the performance of operators and Metlink to ensure contractual standards are met.
- Regulating fares.[64]
- Regulating safety.
- Developing a new ticketing system.
- Ensuring long-term planning of the public transport network and major public transport investment. The government is responsible for construction of additional rail network, improving network capacity, rolling stock upgrades.

62 Under the Franchise Agreement, each franchisee is required to prepare a Rolling Stock Management Plan and an Annual Rolling Stock Maintenance Plan and to undertake maintenance in line with this.

63 Metlink's objective is to grow patronage and revenue and is responsible for marketing and customer information, revenue collection and allocation, ticketing and revenue protection public transport policy and advocacy and data collection and analysis.

64 Under the Franchise Agreement increases in fares are capped in line with the CPI.

D.2 Connex as service operator: the Partnership Agreement

Central to the arrangement between the State and Connex to provide metropolitan rail services is the franchise agreement (known as the Partnership Agreement). This section details the partnership agreement in which Connex as service provider is contracted to provide metropolitan rail services (exchange for government payments) including:

- The passenger service requirements.
- Payments between the State and Connex, including the costs of operating and maintaining the system.
- The incentive framework.
- The allocation of risk under the arrangement.

D.2.1 Passenger Service Requirements

In designing the contract the government needed to specify in some detail the level of service which franchisees would be required to provide. The Passenger Service Requirements (PSR) sets out the minimum level of passenger services that Connex is required to provide. For example the PSR specifies the minimum number of trips to be provided by day, time-band (peak/off peak/shoulder periods), direction and station (trains) and contains a mechanism for monitoring and managing over-crowding. It also outlines the improvements that Connex is required to undertake at stations, including car parking, station lighting etc.

Generally in a purchaser-provider model, the provider is free to determine the level, composition and deployment of staffing resources across the rail system,[65] and to agree appropriate arrangements with the unions and provide employees (as technical and productive efficiency is the responsibility of the provider). However, in the PSR the government set a series of minimum staffing obligations in the Franchise Agreement which effectively increased the number of staff on the train network.[66] These minimum staffing arrangements are essentially the government 'purchasing' a particular level of service.

D.2.2 Payments between the State and Connex

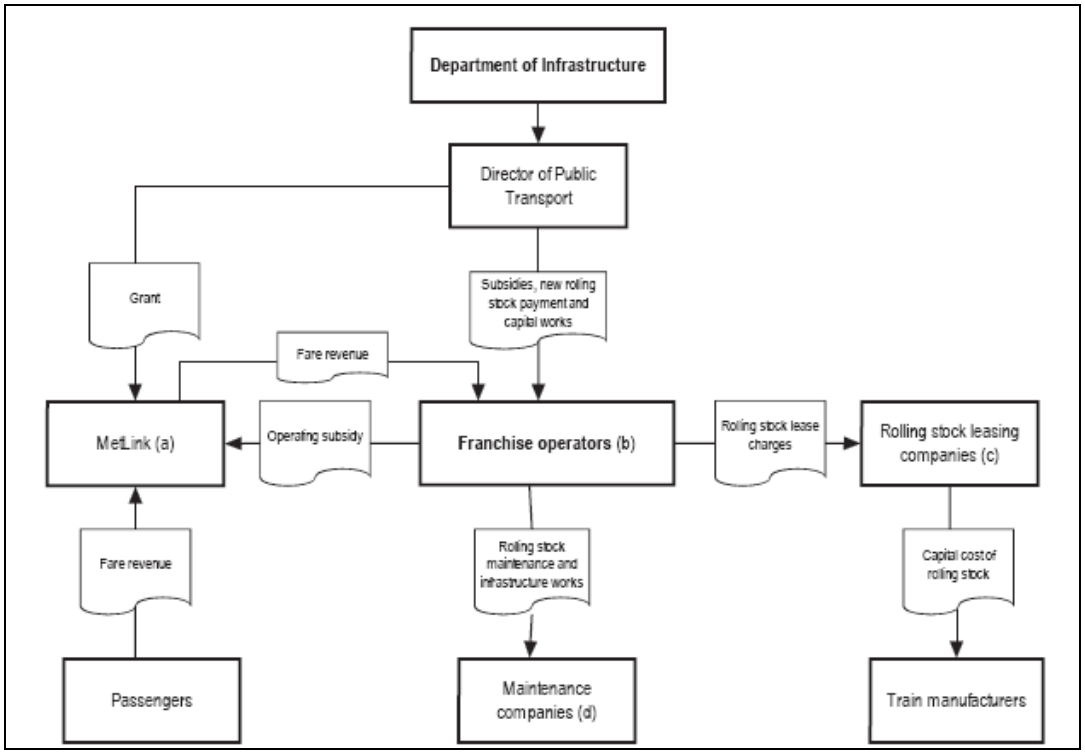
In addition to receiving farebox revenue, Connex receives payments from the State to operate rail passenger services. These payments (government subsidies) are in recognition of the fact that farebox revenue does not cover Connex's costs of

65 Particularly in relation to the mix of customer service, revenue protection and passenger security duties.

66 For example, Connex is required to employ at least 290 (FTE) Authorised Officers (Transit officers) in "mobile, customer-facing roles". Department of Infrastructure, *Public Transport Partnerships: An Overview of Passenger Rail Franchising in Victoria*, March 2005, p 51.

operating rail services (including leasing new rolling-stock) as well as maintaining infrastructure. This is summarised in Figure D.1 below.

Figure D.1 Taxpayer and passenger funding of Melbourne's metropolitan rail system



Source: Auditor General Victoria, *Franchising Melbourne's train and tram system*, September 2005, p 31.

However, Connex is also required to make payments to the State under particular circumstances. The following section details payments between the state and Connex. It does not detail payments from Connex for outsourced maintenance (rolling stock and network maintenance) and the leasing of rolling stock.

Payments between the State and the franchisees can be categorised under four headings:

- base contract payments
- adjustment payments
- risk sharing payments
- incentive payments.

Base contract payments

Base contract payments made to Connex comprise franchise payments (consisting of a fixed amount from the franchisee's offer[67]) and concession payments (payments made to the franchisee as reimbursement for concession travel).

The costs of operating the metropolitan rail system including the government base contract payments and farebox revenue are shown in Table D.1 below. It does not include any adjustment, risk sharing or incentive payments.

Table D.1 Financial Summary: Costs and Revenue for Connex as set out in the Partnership Agreement (nominal $m 2004/05 – 2008/09)

	5 year total $	Annual average	% of total operating cost
Operating Costs			
Asset maintenance	908	182	34
Labour	832	166	31
NRS lease payments[68]	437	87	16
Other including overheads, profit margin	498	100	19
Total	**2675**	**535**	**100**
Commercial revenue			
Farebox revenue	840	168	31
Other revenue	114	23	4
Total revenue	**954**	**191**	**35**
Government payments			
Annual franchise sums	1164	233	44
Concession Top-up	121	24	5
NRS lease funding	437	87	16
Total government payments	**1722**	**344**	**65**

Source: Department of Infrastructure, *Public Transport Partnerships: An Overview of Passenger Rail Franchising in Victoria*, March 2005, Appendix 1.

67 This amount is adjusted for any force majeure events, Rolling Stock Adjustments (a payment by the State to the franchisee to meet the cost of rolling stock lease payments as each unit of new rolling stock is introduced into service) and Franchise Sum Adjustments (payments associated with contract variations for additional service levels eg, additional train services, additional station staff etc).

68 Rolling Stock lease payments.

Adjustment payments

Adjustment payments are made as "true-ups" for areas where the exact amount was not able to be determined at the time the contracts were signed. An example is the fare change adjustment payments whereby the Government is able to claw back revenue from Connex if government decides to increase fares by more than CPI.

Risk sharing payments

Risk sharing payments comprise revenue risk sharing payments as well as profit sharing payments. These risk sharing arrangements are discussed in further detail in Section D2.4.

Incentive payments

Incentive payments were designed to provide incentives to the franchisee to improve service delivery to passengers. These comprise:

- Operational Performance Regime Payment.
- Service Growth Incentive Payment.
- Service Quality Incentive Payment.

These payments which form part of the incentive framework are discussed in further detail in Section D.2.3 below.

D.2.3 Incentive framework for performance

The partnership agreement between Connex and the government contains an incentive framework for performance. The main component of the incentive framework is the Operational Performance Regime (OPR).

Operational Performance Regime (OPR)

Under the regime, Connex is held accountable financially for its level of performance. Connex has the opportunity to obtain incentive payments for exceeding performance targets and can incur penalties for below target performance for a given month.[69] The system by which these payments are calculated is known as the OPR. The intention of this framework of payments and penalties was to give Connex incentives to reduce delays and cancellations by linking financial rewards to the punctuality and reliability of the train.

[69] This is in addition to the commercial pressure on franchisees to improve service quality in order to grow revenue.

The main elements of the OPR are that Connex is required to:

- deliver 98 per cent of train kilometres each month (this increased from 96 per cent to 98 per cent on 1 July 2005)
- ensure that 92 per cent of services arrive on-time.[70]

Connex's operational performance is monitored and recorded and compared against the targets included in the contracts. If Connex's performance is above the target level, it receives an incentive payment; if it is below the target level, it is liable for a financial penalty. These payments/penalties are calculated according to a formula set out in the franchise agreement.[71] Table D.2 below shows that Connex has faced penalties in each period in 2006/07 totalling $23.4 million.

Table D.12 Payments under the OPR ($m)

	July-Sept 2006	Oct-Dec 2006	Jan-March 2007	April-June 2007	Total 2006/07
Connex	-4.4	-4.3	-8.9	-5.8	-23.4

Source: Victorian Department of Infrastructure.[72]

Customer Service Charter

As part of the partnership agreement Connex was also required to develop a Customer Service Charter. The charter describes the rights of passengers and outlines Connex's key commitments, including a compensation code for passengers if Connex's performance or service reliability falls below these thresholds within any given month.[73] The compensation is on a sliding scale: the worse the performance, the greater amount of free tickets it gives away.[74]

Connex notes that compensation for punctuality performance was available in January, February, March, May and July 2007.[75]

70 The definition of on-time running is "no later than five minutes and 59 seconds after the timetabled arrival time."

71 A PWM is worth approximately $0.28 for metropolitan train services ($0.17 for tram services) and the rates are indexed annually for inflation.

72 http://www.doi.vic.gov.au/doi/internet/transport.nsf/alldocs/54C22C8AFCC24577CA25733400201B46?OpenDocument#Passcomp

73 However this is only to customers who hold periodical tickets (monthly, six-monthly or yearly).

74 In regards to service delivery the Charter notes that Connex is required to issue one free daily ticket if more than 2 per cent of Connex services are cancelled and two free daily tickets if more than 5 per cent of Connex services are cancelled. In regards to punctuality the Charter requires Connex to issue one free daily ticket if less than 92 per cent of Connex services are punctual and two free daily tickets if less than 88 per cent of Connex services are punctual.

75 http://www.connexmelbourne.com.au/index.php?id=110

Service Growth Incentive (SGI)

The SGI was introduced to reward franchisees financially for implementing improvements to the frequency of their services (running extra services).[76] The SGI tariffs per train kilometre were set on the basis of the estimated marginal cost to franchisees of providing extra timetabled services.

Service Quality Incentive (SQI)

Under the SQI regime, the State can offer Connex discretionary bonuses for the achievement of performance targets and key performance indicators in areas specified by the State following consultation with franchisees (eg, ticket checking rates, cleanliness, additional customer information).

D.2.4 Allocation of risk

Risk in public-private partnerships should generally be allocated to the party best able to manage it. In designing the new contracts the government aimed to provide a more balanced sharing of risk and reward (the most significant change being the transfer of some revenue risk to the government) relative to the previous contracts.

Revenue Risk

In designing the contract, both parties took the view that neither the government nor the franchisees are uniquely able to manage farebox revenue risk. The result was a sharing of the risk; the arrangements include a farebox revenue risk-sharing mechanism whereby franchisees are offered a measure of "downside" protection. This protection is in the form of a payment mechanism which is triggered when the farebox revenue falls below a threshold level specified in the Franchise Agreement. Once triggered, the State is required to pay 50 per cent of the shortfall between the actual farebox revenue for the financial year and the threshold amount.

Cost risk

In contrast to revenue risk, the government noted that the risks on the cost side of the franchise businesses were more readily manageable by franchisees with the key costs being labour, maintenance (which includes a strong element of labour), rolling stock lease payments, capital investment delivery, and corporate overheads. Therefore the partnership agreement requires Connex to manage most cost-side risks. The agreement allows Connex to receive additional adjustment payments resulting from certain events beyond its control.

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76 SGI payments are available only for service enhancements which are in excess of the service levels at franchise commencement and for services proposed by franchisees which are subsequently approved by the State.

Profit sharing

The agreement contains a profit sharing mechanism, which enables the State to participate in any "excess returns", that is returns in excess of defined thresholds. The reasoning behind a profit sharing mechanism was that:

- the State is sharing a significant part of the revenue downside risk
- the government viewed as unacceptable the potential for franchisees to earn *excessive* returns from the operation of publicly owned public transport assets.

The government recognised that it was necessary to retain an incentive for the franchisees to grow revenue and operate efficiently. As such the profit sharing mechanism was not designed to kick in until substantial "excess profits" were being earned.

E RailCorp's Statement of Corporate Intent

Statement of Corporate Intent

For the year ending June 2007

This Statement of Corporate Intent for the year ending June 2007 has been agreed between:

The Hon M Iemma, MP Premier, Minister for State Development, and Minister for Citizenship	The Hon J Della Bosca, MLC Minister for Finance, Minister for Commerce, Minister for Industrial Relations, Minister for Ageing, Minister for Disability Services, and Vice-President of the Executive Council
Ross Bunyon Chairman, RailCorp On behalf of the Board	Vince Graham Chief Executive Officer

Date: _____

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1. Introduction and Objectives

Consistent with the Transport Administration Act 1988 (as amended), as a State Owned Corporation, RailCorp's principal objectives are to deliver clean, safe, secure and reliable railway passenger services operated by RailCorp and to ensure that the part of the NSW rail network vested in or owned by RailCorp enables safe and reliable passenger and freight services to be provided in an efficient, effective and financially responsible manner[1].

A set of other objectives, also established by the Act, is outlined below[2]:

a) to maintain reasonable priority and certainty of access for railway passenger services;
b) to promote and facilitate access to the part of the NSW rail network vested in RailCorp;
c) to be a successful business and, to that end:
   (i) to operate at least as efficiently as any comparable business, and
   (ii) to maximise the net worth of the State's investment in the Corporation;
d) to exhibit a sense of social responsibility by having regard to the interests of the community in which it operates;
e) where its activities affect the environment, to conduct its operations in compliance with the principles of ecologically sustainable development contained in section 6 (2) of the Protection of the Environment Administration Act 1991; and
f) to exhibit a sense of responsibility towards regional development and decentralisation in the way in which it operates.

Therefore, this Statement of Corporate Intent has been developed to reflect and support its objective of being an efficient, effective, financially and socially responsible government business. In practice this means that significant efforts are being made to improve both RailCorp's cost effectiveness in its provision of service and the quality of service that it provides to its consumers. These efforts include, but are not limited to the creation and implementation of a Customer Focus Strategic Plan to drive improved customer focus. Further details on the Customer Focus Strategic Plan are provided in section 4.1.

As required under the Act, performance benchmarks are specified in a Rail Performance Agreement with the Minister for Transport. These are reflected in RailCorp's Corporate Plan and this Statement of Corporate Intent.

In June 2006 the Government approved the establishment of the Office of Rail Heritage within RailCorp as an ancillary function in terms of the Transport Administration Act. The Office is responsible for preserving, vesting, disposing, leasing and managing the portfolio of rail heritage assets and deeming future heritage assets as required. Resources will be transferred from the State Rail Authority to support this activity.

[1] These objectives are consistent with the Transport Administration Amendment (Rail Agencies) Act 2003.
[2] Source: Transport Administration Amendment (Rail Agencies) Act 2003.

2. Nature and Scope of Business

2.1. Core Business and Functions

RailCorp's core business comprises the following three key functions:

- to provide passenger services through CityRail and CountryLink;
- to maintain, establish and manage rail infrastructure, rollingstock and facilities; and
- to provide and facilitate access to the metropolitan rail network.

CityRail is the provider of urban train public transport in the greater Sydney metropolitan area. In the most recent survey, Rail's share of the journey to work trips into Sydney's CBD was 53%. On each weekday approximately one million passenger journeys are made on its CityRail network. While CityRail's patronage volumes have been flat over the last three years, they are forecast to grow on average by 1.4% in the medium term[3].

CountryLink offers rail services to regional and interstate destinations with its coaches linking up with the rail network to regional destinations. Each year nearly two million passenger journeys are made through CountryLink's rail and coach network.

In addition to CityRail and CountryLink, 18 third-party operators have been granted access and are operating or can operate on RailCorp's network. These operators include freight, long distance passenger and heritage operators.

Details of RailCorp's fleet and services are provided in Table 1 below.

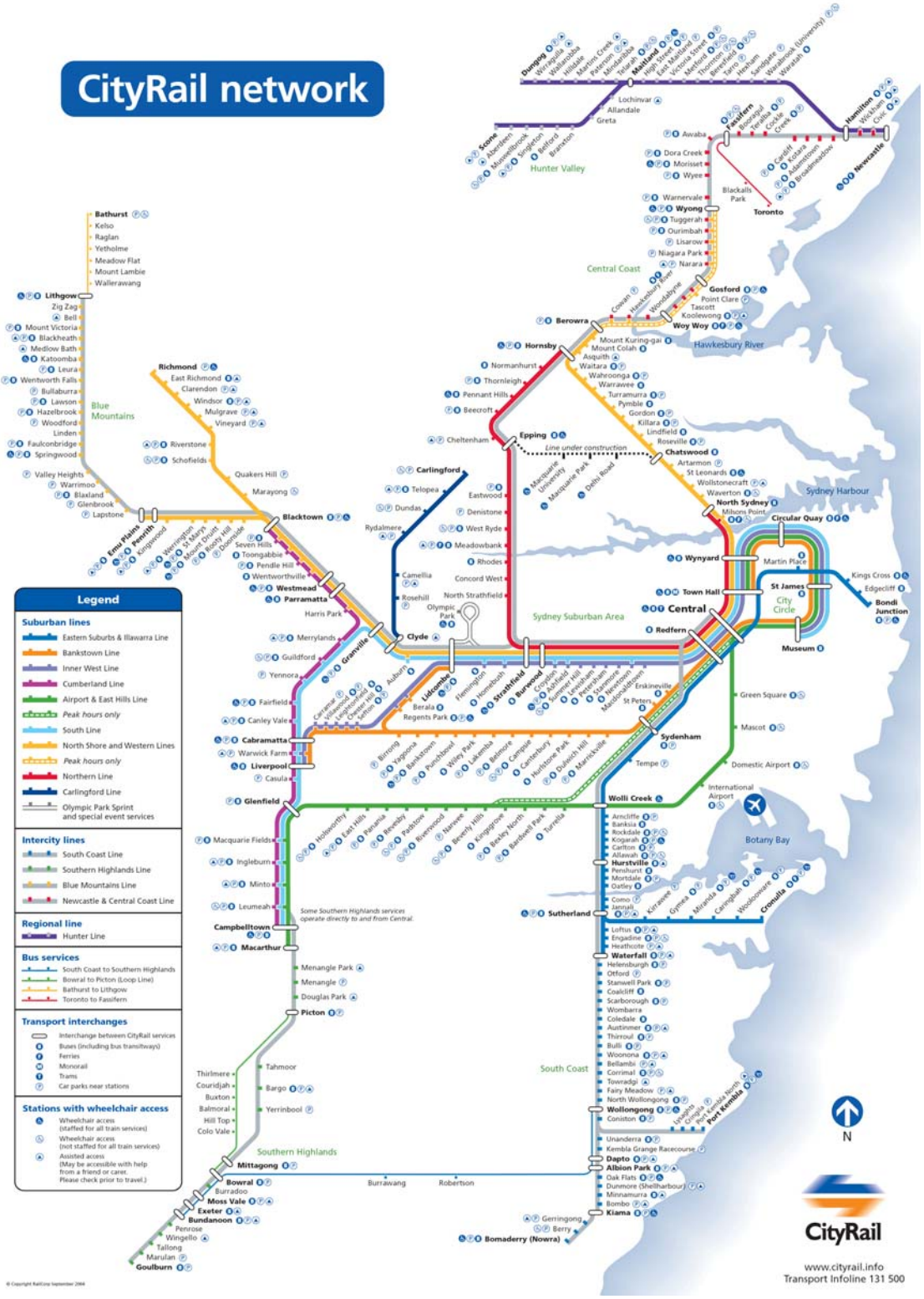
Table 1: RailCorp Fleet and Services

RailCorp Fleet and Services	
CityRail Fleet[4]	
Electric carriages	1,523
Diesel carriages	40
CityRail Rail Services	
Weekdays	2,546 per day
Weekends	1,655 per day
NightRide Bus Services	
Weekdays	102
Weekends	124
CountryLink Fleet[5]	
XPT carriages	81
Xplorer carriages	26
CountryLink Rail Services	144 per week
Road Coach Services	560 per week

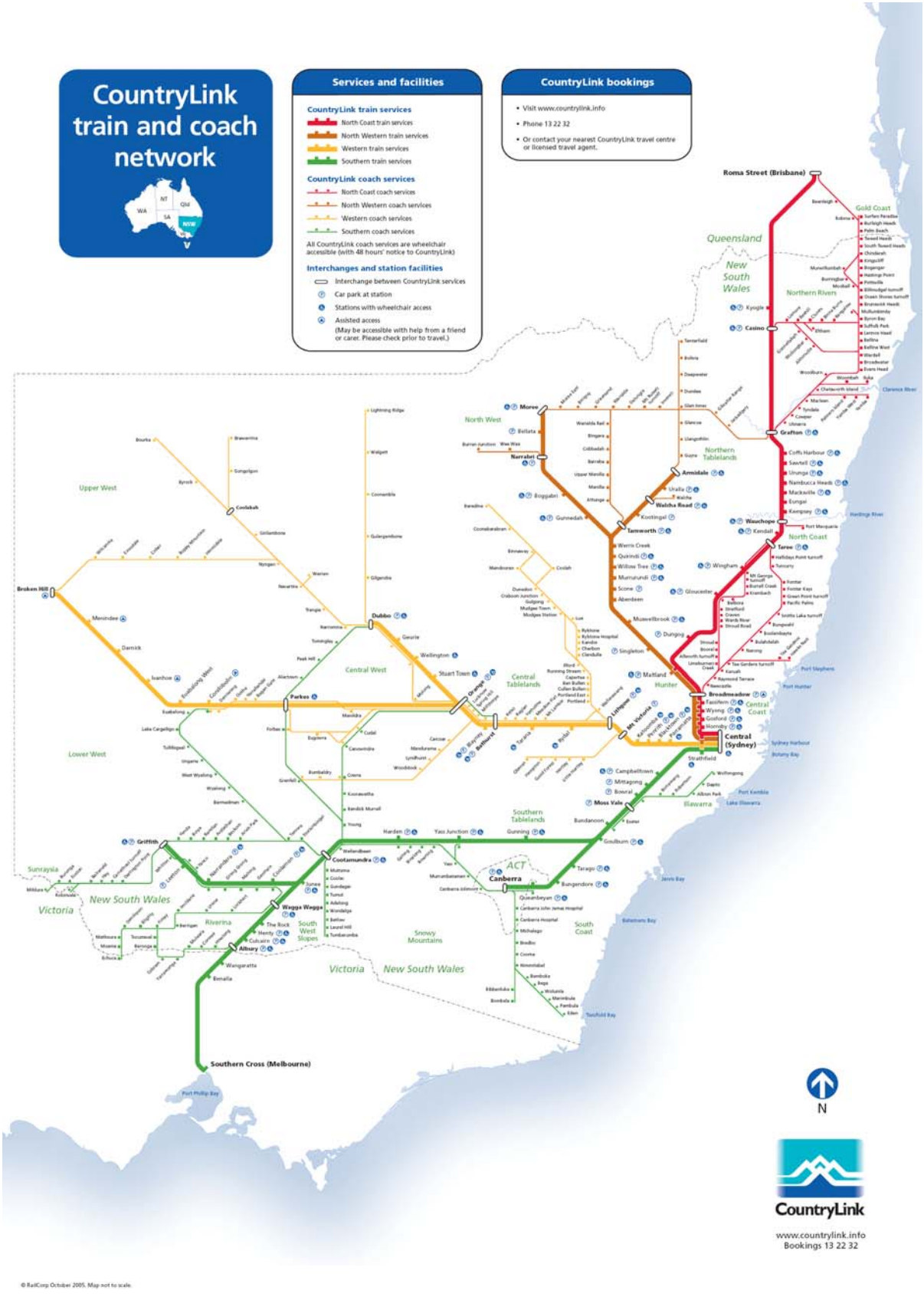
The rail network managed by RailCorp covers 2,100 track kilometres in the greater Sydney metropolitan area.

[3] Internal RailCorp forecast.
[4] Source: Compendium of CityRail Travel Statistics, Fifth Edition, April 2006.
[5] As at March 2006.

The following map identifies the boundaries of CityRail's rail and coach services.



The following map identifies the boundaries of CountryLink's rail and coach services.



2.2. Support Businesses

RailCorp operates several activities that support critical rail infrastructure requirements. RailCorp's policy is to pursue commercial sourcing having regard to strategic issues and train operations where third party markets for these services are particularly thin. Property management is one such strategic activity, while services where markets are thin include rail fabrication, spoil recycling, quarries and communications activities. These businesses supply core rail products, repair and refurbish rail equipment and meet the needs of railway voice and data communications.

3. Services and Funding

Specification and measurement of RailCorp's performance and the provision of services is managed through the Statement of Corporate Intent and the Rail Performance Agreement with the Minister for Transport.

Funding is provided to RailCorp as a financial contribution from the NSW Government through a Funding Agreement with the Director-General of the Ministry of Transport. This contribution is to enable RailCorp to deliver services, offer fare concessions and undertake capital works as detailed and agreed in the Statement of Corporate Intent and the Rail Performance Agreement.

Details of this funding are set out in Table 2 below.

Table 2: Funding Agreement

Funding Stream	Purpose	2006/07 Funding
Services	Provision of CityRail and CountryLink services and RailCorp's network. Includes the cost of maintenance of assets.	$1,261.9m
Clearways Interest	Interest payable on RailCorp borrowings for the Clearways project.	$20.3m
Student and Pensioner Concessions	Funding of revenue foregone for: CityRail CountryLink	 $160.0m $40.8m
Capital Cash Grants	Contribution towards RailCorp's Capital Program as outlined in this Statement of Corporate Intent.	$500.0m
Supplementary Capital Cash Grant	Contribution towards Southern Sydney Freight Line.	$20.0m
Total		**$2,003.0m**

4. Strategic Direction

The broad themes of the draft *State Plan – A New Direction for NSW* are addressed in this Statement of Corporate Intent. Our Key Result Areas (KRAs) are congruent with the Government priorities identified in the *Plan* as illustrated in Table 5 at the end of this section.

RailCorp's vision over the next five years is to "deliver safe, clean and reliable passenger services that are efficient, sustainable and to the satisfaction of RailCorp's customers". To achieve our vision, every employee shares a common set of values - safety, customer service, teamwork, integrity, respect and continuous improvement. To deliver tangible progress towards the vision, RailCorp will focus on four outcomes and their Key Result Areas as detailed in Table 3.

Table 3: Outcomes and Key Result Areas

Vision	Outcome	KRAs
Safe, clean and reliable passenger service	Safe	Passenger, workplace and public safety
	Retaining and growing patronage	Secure environment
		Customer service and reliability
		Capacity – demand matching
Efficient operations	Value for money	Financial efficiency • Operational efficiency • Revenue improvement • Effective investments
Sustainability and planning	Sustainable business	Responsible asset management
		Efficient planning
		Capable, positive and performance driven staff

Objectives by each KRA are outlined below in Table 4.

Table 4: Key Result Areas and Objectives

KRAs	Objectives
Passenger, public and workplace safety	To manage the safety risks our operations entail for passengers, the public and employees to a level as low as reasonably practicable
	To reduce the number of safety related incidents by making our system progressively safer through effective hazard control
Secure environment	To deliver improved security at stations and on trains for our customers and staff
	To have the capability to effectively respond to changing terrorism threat levels
Customer service and reliability	To improve the standards of facilities, information and service at stations and in trains, and continuously improve customer satisfaction on these dimensions
	To return reliability to acceptable levels
	To enhance the cleanliness of stations, trains and other facilities and improve customer satisfaction
Capacity-demand matching	To provide adequate service capacity to match demand with available resources
Operational efficiency	To reduce cost to Government by increasing revenue and reducing operating costs through efficiency improvements
Revenue improvement	
Effective investments	To allocate resources to projects with the greatest net benefits
	To ensure that major projects are on time and on budget, and deliver the expected benefits
Responsible asset management	To maintain, renew and build assets to deliver sustainable performance consistent with safety and business objectives
Efficient planning	To deliver and implement on-time, comprehensive and feasible plans that meet stakeholder requirements
Capable, positive and performance driven staff	To achieve a shared vision and deliver workplace behaviours consistent with corporate values for all employees
	To improve workforce capabilities

To deliver improvements on each KRA, a series of strategies and programs have been developed. These programs are at different stages of their life cycles.

The following table illustrates the alignment between RailCorp's KRAs and the *State Plan*.

Table 5: Alignment of Key Result Areas with the draft State Plan

Key Result Areas	Passenger, public and workplace safety	Secure environment	Customer service and reliability	Capacity-demand matching	Operational efficiency	Revenue improvement	Effective investments	Responsible asset management	Efficient planning	Capable, positive and performance driven staff
State Plan Priorities										
Public transport meets reliability and safety targets	√		√							
Public transport has an increased share of peak hour commuters				√						
Increased customer satisfaction with all Government services			√							
State Plan Strategies										
Ensure infrastructure projects are delivered on time and on budget							√			
Implement a rigorous performance management program to ensure CityRail achieves and sustains 92 per cent on time running			√							
Improve passenger information across all public transport services			√							
Significantly increase the (bus and) train fleet							√	√		

In addition, we recognise RailCorp's role in providing access to freight operators and the Government's objective of increasing the proportion of freight carried on rail.

4.1 Customer Focus

One key area of RailCorp's strategic direction is an increased focus on customer needs.

A Customer Focus Strategic Plan is under development in order to ensure significantly improved focus on customer needs and delivery of customer benefits and service. This is a key plank both of RailCorp's aim to improve its ITTSR customer satisfaction rating and RailCorp's obligation to improve value for money in RailCorp's provision of services. This approach also supports the Government's intentions in the draft *State Plan* to improve customer satisfaction with Government services.

A project team has commenced work to formulate strategies for improved customer service and to identify what opportunities for improvement exist within RailCorp. From this work, a firm set of existing customer service standards are being compiled to provide a basis for highlighting areas where gaps in customer service standards exist.

The implementation of the new CityRail timetable from 4 September 2005 has demonstrated encouraging reliability results. The more robust timetable is delivering not only improved reliability, but is also contributing to more rapid service recovery following disruption on the network primarily in two of CityRail's three sectors. Similar benefits are being delivered to CityRail's remaining sector with the implementation of the 2006 timetable in May 2006.

5. Asset Management

Underpinning RailCorp's Corporate Plan are its Asset Management Plans, including Routine Maintenance (RM) and Major Periodic Maintenance (MPM) programs.

Typical maintenance work includes, but is not limited to, the following major elements in Table 6 below.

Table 6: Asset Maintenance Activity

Infrastructure Asset Maintenance Activity		**2006/07 Budget**
Infrastructure Maintenance		
	Rerailing (AMP)	54 km
	Rerailing (vertical split head)	38 km
	Resurfacing plain track	560 km
	Ballast cleaning	76 km
	Points machines	57 units
	Contact wire renewals	30 km
	Resleepering	137,758 units
	Turnout renewals	44 units
Buildings and sidings maintenance		
	Platform resurfacing	18 units
	Building refurbishment (stations)	15 units
	Escalator step chain refurbishment	3 units
Rollingstock Asset Maintenance Activity	**Indicative activity levels (per annum unless otherwise stated)**	
Routine Maintenance – electric fleet[6]		
	General inspections	7,000
	Pantograph & reservoir	44,000
	Brakes	73,000
	Train Preparations	810,000
Routine Maintenance – diesel fleet		
	Running, weekly, trip, train preparations, intermediate and major inspections	750,000
	Wheel checks and measurements	300,000
	Traction motor inspections	600
	Brakes	300,000
Major Periodic Maintenance – electric fleet		
	Equipment change-out (light)	Every 6 years
	Major overhaul (heavy)	Every 12 years
	Traction Motor	Every 2 years
	Compressors	Every 3 years
	Bogies change-out	Based on wheel life (3-4 years)
Major Periodic Maintenance – diesel fleet		
	Engine/auxiliary (top-mid life)	18 months/ 7,500 hours
	Engine/auxiliary (general overhaul)	3 years/15,000 hours
	Transmission	5 years
	Bogies	2-4 years depending on asset class
	Wheel set	9 months – 3 years depending on asset class
	Engine (XPT and 620/670)	4-5 years
	Traction motor (XPT)	18 months
	Compressors	3 months
	Air brakes (620/720)	12 months

[6] This information is actual data or based on Technical Maintenance Plans and is consistent with in the Rollingstock Asset Management Plan.

5.1. Capital Program

Capital expenditure is required to respond to anticipated customer requirements for increased levels of service quality and capacity and replacement of life-expired assets.

The Rail Clearways Program is a $1.5 billion initiative to improve reliability and capacity on CityRail's suburban network. Due for completion in 2010, the Rail Clearways Program comprises 15 key projects that will create five independent routes by 2010. It will also provide the infrastructure facilitating increases in the capacity of the CityRail network to meet continuing growth in patronage in the greater Sydney metropolitan area.

The benefits to rail users, car users, society and CityRail from the Clearways Program, including associated sectorisation and timetable changes, can be summarised as follows:

(a) Improved passenger journey times (rail users);
(b) Increased service frequency (rail users);
(c) Reduced road congestion (road users);
(d) Reduced car externalities (society); and
(e) Avoided revenue losses from diverted demand (CityRail).

The program is proceeding in stages based around the introduction of CityRail timetable changes due in 2008 and 2011.

The Clearways program forms part of RailCorp's wider strategy to provide a simpler and more robust method of operation by sectorising the rail network and its operations.

RailCorp's fleet will be significantly modernised over the next six years. In April 2004, the Government announced that by the end of 2010 a minimum of 498 carriages would be replaced through a Public Private Partnership (PPP) arrangement. In May 2006 this commitment was increased to approximately 600 cars, with the final cars due for delivery in 2013. RailCorp's 2006/07 capital programs and associated funding are outlined in Table 7 below.

Table 7: 2006/07 Capital Program Budget

Program by Component	**$M**
Infrastructure (excl Clearways)	158.1
Clearways	207.8
Rollingstock	328.2
Stations	85.2
Technology & Communications	79.6
Other	53.6
TOTAL	**912.5**
Program by Source of Funds	**$M**
Carry forward from 2005/06	82.5
Budget Grant for 2006/07	500.0
Asset sales proceeds	7.2
Borrowings - Clearways	207.8
Borrowings - PPP	115.0
TOTAL	**912.5**

Note: excludes $20.0m supplementary funding for Southern Sydney Freight Line.

Table 8 below illustrates how the capital programs contribute to KRAs.

Table 8: 2006/07 Capital Program and KRAs

Program / Key Result Area	Safety[7]	Secure Environment	Customer Service[8]	Capacity[9]	Operational Efficiency	Revenue Improvement	Effective Investments	Responsible Asset Management	Efficient Planning	Staff[10]
Infrastructure										
Asset Management, Planning Improvement, and Business Capabilities					✓	✓			✓	
Reliability Improvements			✓					✓		
Safety Improvements	✓									✓
Capacity Improvements				✓						
Crew Facilities										✓
Stabling Facilities				✓						✓
Clearways			✓	✓						
Rollingstock										
Rollingstock Purchasing Plan (PPP)			✓	✓						
New Rollingstock (non PPP)			✓	✓						
Rollingstock Facilities Asset Management								✓		✓
XPT Refurbishment Program			✓					✓		
Rollingstock Enhancements			✓					✓		
Stations										
Future New Stations			✓	✓						
Easy Access			✓							
Station Upgrades			✓					✓		✓
Technology & Communication										

[7] Passenger, public and workplace safety.
[8] Customer service and reliability.
[9] Capacity demand matching.
[10] Capable, positive and performance driven staff.

Program / Key Result Area	Safety[7]	Secure Environment	Customer Service[8]	Capacity[9]	Operational Efficiency	Revenue Improvement	Effective Investments	Responsible Asset Management	Efficient Planning	Staff[10]
Improving Station Passenger Information			✓							
Rail Control Consolidation	✓				✓					
Network Management Systems	✓									
Business & Operational Systems Improvements					✓	✓	✓			
Train Communications	✓		✓							
Other										
ARTC Interface Management								✓		
Security		✓								
Minor works							✓		✓	✓
Australian Rail Training: Training Simulation Scenarios				✓						✓

6. Operational and Financial Performance Targets

Reflecting the KRAs outlined in Tables 3 and 4 in section 4, a set of operational and financial Key Performance Indicators (KPIs) have been developed as outlined in Table 9 below.

Table 9: KPIs and Targets

KRAs	KPIs
Passenger, public and workplace safety	• % delivery of the Safety Risk Management Framework milestones to project plan (1 year KPI) • Lost Time Injury Frequency Rate (LTIFR) • Defined safety incidents
Reliability	• Reliability at 5 mins (metro), 6 mins (Intercity) and 10 mins (CountryLink) • Service disruptions (skipped stops and cancellations)
Secure Environment	• Offences against persons
Customer service	• Number of customer complaints on customer service (staff and information) • Customer satisfaction rating (ITSRR)
Cleanliness	• Number of customer complaints on cleanliness
Capacity – demand matching	• % peak hour CityRail trains at a load factor above 135% • Off peak patronage
Operational efficiency/Revenue improvement[11]	• Delivery to Operating Budget
Effective investments	• % of capex projects delivered on time and on budget
Responsible asset management	• % of Asset Management Plan milestones met • Number of peak incidents attributable to Infrastructure
Efficient planning	• Implementation of Corporate Plan/Group Plans and SCI
Capable, positive and performance driven staff	• Alignment of staff behaviour with Corporate Values • Implementation of approved People Plan

The personal performance agreements of the top two tiers of RailCorp's management reflect corporate KPIs. Corporate KPIs also form part of the personal performance agreements for the third and fourth tiers of RailCorp management.

Financial targets are outlined in Table 10 below. The 2006/07 targets are management accounting targets and also reflect predictable and measurable adjustments that will be included in the year-end Statutory Accounts.

Table 10: Financial Performance Targets

Financial Performance Targets	2005/06 Actual[12] ($M)	2006/07 Budget ($M)
Net Operating Income/(Loss)[13]	7.3	(6.9)
Earnings before Interest & Tax	244.1	211.8
Profit/(Loss) before Tax	243.1	209.6

[11] In April 2004, the Independent Pricing and Regulatory Tribunal of NSW (IPART), in conjunction with RailCorp, developed a "CityRail Efficiency Performance Measurement Framework". KPIs developed in the framework are in the process of being implemented by RailCorp in addition to efficiency KPIs in Table 9.
[12] Draft Statutory Accounts.
[13] As per Management Accounts.

7. Accounting Policies

RailCorp's annual Financial Report is prepared in accordance with Australian Accounting Standards, the Public Finance and Audit Act 1983, the Public Finance and Audit Regulation 2005 and specific directions issued by the Treasurer, including Treasury Circulars and Accounting Policies in force at year end which are made mandatory for a State Owned Corporation. Other Treasury Circulars and documents on accounting policy matters are considered in the preparation of RailCorp policies, procedures and instructions.

Full details of accounting policies adopted by RailCorp are published in the notes to the annual Financial Report.

8. Financial Asset and Liability Management

RailCorp Treasury's primary objective is to achieve financial management of all financial risks in strict compliance with internal policies and guidelines within the broad framework of the Treasury Management Policy. RailCorp Treasury is governed by formal policies, procedures and internal control systems. Policies covering liquidity risk, credit risk, debt management and interest rate risk, foreign currency risk, commodity risk and operational risk are in place to ensure financial management of all risks is achieved.

9. Risk Overview and Impacts

RailCorp's risk management policy is designed to achieve best practice in managing its risks to meet its vision of delivering safe, secure, clean and reliable passenger services that are efficient, sustainable and to the satisfaction of its customers.

RailCorp applies risk management on a systematic and consistent basis through its Safety, Environment and Business Risk Management Frameworks.

The Safety Risk Management Framework provides a process to profile safety risk exposure associated with RailCorp's operations and to demonstrate that risks are being controlled to a level as low as reasonably practicable (ALARP).

Similarly the Business Risk Management Framework is aimed at assessing RailCorp's non-safety and environmental risks (eg health, security, commercial, reputation, etc) consistent with the Safety Risk Management approach.

A similar framework for assessing environmental risks is being established.

RailCorp's major risks can be grouped according to the following broad areas of generic risk:

- Safety performance;
- Operational performance and service reliability;
- Stakeholder relationships;
- Financial performance;
- Project management;
- Human resources/industrial relations;
- Governance/compliance; and
- ICT Governance.

10. Half Yearly and Quarterly Reporting

Within one month after the end of the first six months of the financial year RailCorp will deliver to Shareholding Ministers and the Minister for Transport a report of the operations of the corporation during that half-year. A financial report will also be provided on a commercial-in-confidence basis.

Quarterly reports will also be provided to Shareholding Ministers and the Minister for Transport on a commercial-in-confidence basis.

11. Representation and Commitment Statement

The Board of RailCorp confirms the following:

1. The performance targets within the SCI are based on and supported by RailCorp's Business Plan.

2. RailCorp's Strategic Asset Management Plan is as far as practicable consistent with the principles of the Total Asset Management (TAM) Policy issued by NSW Treasury (TPP 04-3). Its asset maintenance policies and processes are adequate and appropriate to manage and control risks associated with physical assets.

3. RailCorp will comply with the NSW Government Procurement Policy (TPP 04-1) for capital projects, including timely submission to Treasury of Gateway Reviews and business cases consistent with Guidelines for Economic and Financial Appraisals.

4. RailCorp is aware of the requirements of *Ministerial Memorandum No. 2005-9, Major Infrastructure Coordination and Delivery* and will comply with these requirements if not contrary to the objectives of the Corporation.

5. Where relevant and applicable to RailCorp, Projects of State Significance have been identified in accordance with the criteria set down in the *Guidelines on the Assessment of Projects of State Significance*.

6. In-principle approval from Cabinet Standing Committee on the Budget ("Budget Committee") and final approval from the Voting Shareholders has been received for RailCorp's 2006-07 capital program, and final Budget Committee approval will be sought prior to RailCorp committing to individual major capital projects.

7. All the known 'key risks' and the 'major emerging contingent liabilities' which could materially impact the current and future results of the organisation for the forthcoming year have been disclosed.

8. The requirements of the *Treasury Management Policy* have been complied with and related party interests, which may represent a possible conflict of interest for Directors, have been disclosed.

9. RailCorp will :

a) conduct face-to-face consultations with NSW Treasury and the Public Employment Office early in the process of formulating bargaining parameters on award/enterprise agreement negotiations; and

b) advise NSW Treasury and the Public Employment Office of the outcome of negotiations in advance of any final agreement.

10. RailCorp will comply with the requirements of Premier's Memorandum No 2005-14, *Working Together: Public Sector OHS and Injury Management Strategy 2005-2008*.

11. RailCorp's Chief Executive Officer has an employment contract and performance agreement. The employment contract is appraised annually with the next appraisal scheduled for after the end of the financial year.

12. RailCorp's Board agrees to provide the Voting Shareholders with financial and other information, including information on major capital expenditure projects, on a quarterly basis to assess the performance against commitments in this SCI and to assess the value of the Shareholders' investment in the business.

13. RailCorp's Board agrees to comply with Section 3.4 (Continuous Disclosure) of the *Reporting and Monitoring Policy.*

14. As a SOC, RailCorp will comply with Treasury Circulars on accounting policy matters in accordance with Attachment 1 of the *Guidelines for the Development of the 2006-07 Statement of Corporate Intent.*