

THE GHAN

INDIAN PACIFIC

THE OVERLAND

August 6, 2007

Ms Margaret Arblaster
General Manager - Transport and Prices Oversight
Regulatory Affairs Division
By email transport.prices_oversight@acc.gov.au

Dear Ms Arblaster

Submission re: Australian Rail Track Corporation Undertaking

Please find enclosed our non-confidential submission in response to the ACCC's issues paper of June 2007 concerning the Access Undertaking proposed by the Australian Rail Track Corporation (**Proposed Undertaking**).

We apologise for the delay in submitting our submission. We hope that you will nonetheless take our submission into account in your assessment of the Proposed Undertaking.

GSR is an operator of long distance passenger trains (the Indian Pacific, The Ghan and the Overland). GSR is a frequent and regular user of the rail track network that is the subject of the Proposed Undertaking.

For the reasons set out in our submission, GSR submits that the ACCC should reject the Proposed Undertaking on the basis that it is inconsistent with the criteria in s44ZZA(3) of the *Trade Practices Act 1974 (Act)*. In particular, GSR submits that:

- 1 the pricing regime in Part 4 of the Proposed Undertaking lacks certainty;
- 2 the Proposed Undertaking fails to provide for effective price discrimination between different service types; and
- 3 there are a number of asymmetric and onerous terms and conditions of the Proposed Undertaking and Track Access Agreement.

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Annexure A to our submission is an economic analysis report by URS entitled 'Price Sensitivity in Long Distance Passenger Rail'. Annexure B to our submission is the ARTC's published Track Access Reference Pricing effective from 1 July 2006.

We are happy to further assist the Commission in its assessment of the Proposed Undertaking and meet with Commission staff to discuss our submission. Please contact me if you would like to discuss our submission or arrange a meeting.

Yours sincerely



Tony Braxton-Smith
Chief Executive Officer



**Submission re: Australian Rail Track
Corporation Access Undertaking**

**Submission to the ACCC by Great Southern
Railway Limited**

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1 Executive Summary

- 1.1 This submission is made by Great Southern Railway Limited (**GSR**) in response to the ACCC's Issues Paper of June 2007 (**Issues Paper**) concerning the Access Undertaking (**Proposed Undertaking**) provided by the Australian Rail Track Corporation (**ARTC**). If the Proposed Undertaking is accepted by the ACCC, then it will replace the Access Undertaking proposed by the ARTC and accepted by the ACCC in May 2002 (**2002 Undertaking**).
- 1.2 GSR is an operator of long distance passenger trains (the Indian Pacific, The Ghan and the Overland). These trains have been operating on the Network that the ARTC now manages for in excess of 30 years. GSR has been a frequent and regular user of the rail track network that is the subject of the Proposed Undertaking (**Network**)¹ since it acquired Australian National's interstate passenger services in 1997. The Network is also used by privately owned freight services and passenger services operated by Government owned entities.
- 1.3 GSR submits that the Proposed Undertaking has been developed for the purposes of freight train operators (in particular, intermodal freight operators) without giving proper consideration to the specific characteristics of end markets for passenger train operators. GSR has raised these concerns with the ARTC in the past, however, they have not been addressed by the ARTC in previous access undertakings or access arrangements with GSR. Similarly, the Proposed Undertaking fails to address these concerns.
- 1.4 GSR submits that the ACCC should reject the Proposed Undertaking on the basis that it is inconsistent with the criteria in s44ZZA(3) of the *Trade Practices Act 1974* (**Act**). In particular, GSR observes:
- 1.4.1 Firstly, the pricing regime in Part 4 of the Proposed Undertaking lacks certainty. That is:
- (a) the Proposed Undertaking provides no guidance or certainty as to what access charges would apply to services that differ from the Indicative Services², such as passenger services;

¹ The Proposed Undertaking contains the terms and conditions for providing access to the interstate mainline standard gauge track linking Kalgoorlie in Western Australia, Adelaide, Wolseley and Crystal Brook in South Australia, Melbourne and Wodonga in Victoria, and Broken Hill, Cootamundra, Albury, MacArthur, Moss Vale, Unanderra, Newcastle (to the Queensland border) and Parkes in New South Wales.

² As described in clause 4.6(a) of the Proposed Undertaking.

- (b) the Proposed Undertaking provides no certainty as to how the ARTC will price the flagfall component of the access charge for services such as passenger services;
- (c) the Proposed Undertaking provides no certainty as to how the ARTC will price the variable component of the access charge for services such as passenger services; and
- (d) the Proposed Undertaking provides no certainty with respect to how the network occupancy component of the access charge will be calculated and when it will be applied.

Since passenger services have been regular and customary users of the Network since the early 1970s, any access undertaking offered by the ARTC should provide certainty with respect to the charges those services will face.

1.4.2 Secondly, the Proposed Undertaking fails to provide for effective price discrimination between different service types. In particular, the Proposed Undertaking is inconsistent with the pricing principles in s44ZZCA of the Act as it fails to differentiate between passenger and freight train services, in circumstances where:

- passenger trains impose far lower variable costs on the ARTC as the provider of the rail infrastructure and utilise less Network capacity than freight trains; and
- passenger train services have a higher elasticity of demand than freight trains.

1.4.3 Thirdly, there are a number of asymmetric and onerous terms and conditions of the Proposed Undertaking and the Track Access Agreement that are unnecessary to satisfy the ARTC's legitimate business interests and which are inconsistent with the criteria in s44ZZA(3) of the Act.

1.5 Significantly, GSR observes that the lack of transparency and therefore certainty provided by the pricing terms of the Proposed Undertaking:

1.5.1 prevents proper scrutiny of the terms of the Proposed Undertaking by access seekers; and

1.5.2 prevents the ACCC being affirmatively satisfied that the Proposed Undertaking is consistent with the criteria in s44ZZA(3) and it would be appropriate to accept the Undertaking.

While there is a right of arbitration in the Proposed Undertaking for access seekers dissatisfied by the terms of access offered by the ARTC, arbitration is time consuming for both parties. Rather, than relying on a right of arbitration, the Proposed Undertaking should provide for certainty with respect to access prices.

- 1.6 Further, as a result of its failure to provide potential users of the Network with sufficient information to satisfy themselves that pricing procedures have been correctly applied, or to themselves model access pricing for example when considering possible new services, the pricing regime in the Proposed Undertaking fails to promote efficient utilisation of the Network.
- 1.7 GSR also observes that, in the absence of the provision of an indicative access charge for passenger services in access undertakings offered by the ARTC in the past, the ARTC has historically charged a higher flagfall charge for passenger services than the flagfall charged for general freight services. Since the passenger services provided by GSR have a higher elasticity of demand than freight services, they should be charged a lower flagfall price than freight services. Nonetheless GSR has every reason to believe that the ARTC will continue its historic practice of charging GSR a higher flagfall charge than freight services, unless the access undertaking offered by the ARTC and accepted by the ACCC provides for effective price discrimination and clarity around the charges the ARTC will impose on passenger services.
- 1.8 In this submission the word 'passenger' refers to long-distance interstate passenger rail services of the kind operated by GSR and does not include urban or intrastate services except where the context indicates otherwise.

ARTC
GSR

2 Criteria for Assessing an Undertaking

2.1 As recognised in the Issues Paper, there are a number of matters that the ACCC is required under s44ZZA of the Act to take into account in assessing the Proposed Undertaking.

2.2 In particular, the ACCC is required to decide whether it would be 'appropriate' to accept the Proposed Undertaking having regard to the following matters (s44ZZA(3)):

- the objects of Part IIIA;
- the pricing principles specified in s44ZZCA;
- the legitimate business interests of the provider;
- the public interest, including the public interest in having competition in markets (whether or not in Australia);
- the interests of persons who might want access to the service;
- whether the undertaking is in accordance with an access code that applies to the service;
- any other matters that the ACCC thinks are relevant,

(Appropriateness Criteria).

2.3 The objects of Part IIIA are contained in s44AA of the Act which provides that:

'The objects of this Part are to:

- (a) promote the economically efficient operation of, use of and investment in the infrastructure by which services are provided, thereby promoting effective competition in upstream and downstream markets; and
- (b) provide a framework and guiding principles to encourage a consistent approach to access regulation in each industry.'

2.4 Section 44ZZCA provides that the pricing principles for access undertakings are:

- (a) that regulated access prices should:
 - (i) be set so as to generate expected revenue for a regulated service or services that is at least sufficient to meet the efficient costs of providing access to the regulated service or services; and
 - (ii) include a return on investment commensurate with the regulatory and commercial risks involved; and
- (b) that access price structures should:
 - (i) allow multi-part pricing and price discrimination when it aids efficiency; and

(ii) not allow a vertically integrated access provider to set terms and conditions that discriminate in favour of its downstream operations, except to the extent that the cost of providing access to other operators is higher; and

(c) that access pricing regimes should provide incentives to reduce costs or otherwise improve productivity.

3 GSR and Long Distance Passenger Services

GSR

- 3.1 The Commonwealth Government owned Australian National Railways Commission, trading as Australian National (**AN**) used to own and maintain rail track infrastructure and provide intrastrate and interstate rail freight services in various States and Territories throughout Australia. In the 1990s the Commonwealth Government initiated significant reforms to the rail industry which included splitting up AN and separating out its rail track, freight and passenger services. In early 1998, AN's interstate rail track network was transferred to the ARTC to manage and provide access. The Commonwealth Government provides ongoing and generous funding to the ARTC through the Auslink program to assist ARTC in meeting its business objectives.
- 3.2 In late 1997, GSR acquired the passenger rail business of AN. Since that time GSR has been a regular user of the Network. The rail infrastructure used by GSR's passenger trains is the same as that used by freight trains.
- 3.3 GSR operates the following long distance passenger rail services:
- 3.3.1 The Indian Pacific (Sydney-Perth and return) - twice weekly
 - 3.3.2 The Ghan (Adelaide-Darwin and return) - twice weekly
 - 3.3.3 The Overland (Adelaide-Melbourne and return) - three times weekly
- 3.4 GSR is the only privately owned company that operates passenger services. The other companies that operate passenger trains are government owned entities, being Queensland Rail, Countylink (RailCorp NSW), V/Line Victoria and the Public Transport Authority of Western Australia. Each of these receive substantial financial assistance from the relevant State government through community service obligations to meet their operating costs. GSR receives no equivalent government funding to meet its operating costs.
- 3.5 The three train services operated by GSR are both a tourism experience and a form of interstate transport. As the trains stop at many rural, remote and regional destinations, they provide much needed visitors to those areas in addition to transport services to residents of those areas.
- 3.6 GSR is Australia's only national passenger rail operator. GSR accesses rail infrastructure in Western Australia, South Australia, the Northern Territory, Victoria and New South Wales. The breadth of GSR's operations provides GSR with a unique insight into the effect of the pricing of access to rail infrastructure on the long distance passenger rail business.

Long Distance Passenger Services

- 3.7 The long distance passenger train services provided by GSR are provided in a distinct downstream market to that in which freight train services are supplied. In

particular, freight train services and passenger train services are distinct products, with differing competitive alternatives available to consumers in respect of each.

- 3.8 The market for freight train services is essentially an intermediate industrial market that supports the transport of goods. The market for passenger services is an end consumer market. Freight train services involve the transportation of goods from one place to another and primarily face competition from road freight services. Meanwhile, passenger train services involve the transportation of people from one place to another, for example for holidays and visiting friends and relatives, and primarily face competition from low cost airlines, road coaches and private motor vehicles.
- 3.9 Further, long distance passenger services differ in demand characteristics to commuter services. Consumers of commuter services require frequent, short distance travel. Consumers' use of long distance passenger services is only occasional and more discretionary than their use of commuter services.
- 3.10 Annexure A to this submission is an economic report by URS on the Price Sensitivity in Long Distance Passenger Rail (**URS Report**). In its Report, URS observes that the major determinants of demand for passenger services are population size, international tourism numbers, incomes, government policies particularly with respect to concessional travel allowances, service levels particularly as they relate to timeliness and availability and price of rail services relative to competing transport modes.³ The conclusions reached in that Report in relation to the relative price elasticities of long distance passenger rail services are discussed further at paragraphs 5.19 to 5.20 below.

³ Page 1-1 of the URS Report.

4 Pricing Terms Lack Certainty

Introduction

- 4.1 For the reasons set out in this submission, GSR submits that the ACCC should reject the Proposed Undertaking on the basis that the track access pricing regime in Part 4 of the Undertaking lacks certainty. The Proposed Undertaking provides the ARTC with a broad discretion in formulating its access charges and provides no certainty to users of the Network as to how the ARTC will charge for use of the Network. In particular;
- 4.1.1 the Proposed Undertaking provides no guidance or certainty as to what access charges would apply to services that differ from the Indicative Service described in clause 4.6(a) of the Proposed Undertaking, such as passenger services ;
 - 4.1.2 the Proposed Undertaking provides no certainty as to how the ARTC will price the flagfall component of the access charge for services that differ from the Indicative Services such as passenger services;
 - 4.1.3 the Proposed Undertaking provides no certainty as to how the ARTC will price the variable component of the access charge for services that differ from the Indicative Services such as passenger services; and
 - 4.1.4 the Proposed Undertaking provides no certainty with respect to how the network occupancy component of the access charge will be calculated and when it will be applied.
- 4.2 The track access pricing regime in the Proposed Undertaking is therefore inconsistent with the Appropriateness Criteria. In particular, the lack of regulatory certainty regarding access pricing under the Proposed Undertaking:
- 4.2.1 is inconsistent with the interests of persons wanting access to the below rail services provided by the ARTC;
 - 4.2.2 adversely affects incentives for efficient investment and use of ARTC's infrastructure and, thus, is inconsistent with the objects of Part IIIA and the public interest; and
 - 4.2.3 is not necessary to satisfy ARTC's legitimate business interests.

Pricing Provisions

- 4.3 The ARTC's pricing provisions for access arrangements are contained in Part 4 of the Proposed Undertaking.
- 4.4 Under clause 4.5(a) of the Proposed Undertaking, the access charges comprise:
- 4.4.1 a variable component which is a function of distance and gross mass (\$/gtkm);

- 4.4.2 a flagfall component which is fixed and specific to each train service type and segment (\$/km); and
- 4.4.3 an excess network occupancy component, which is a function of time (\$/hr or part thereof) sought by an applicant for a train path on the network which is in excess of a reasonable allowance for section run times of the applicable train service type, dwells for crossing and passing of other trains, and a specified allowance for the reasonable requirements for operational activities whilst the train occupies the network.
- 4.5 The variable component of the access price is charged only where the train path is utilised. The flagfall and excess network occupancy components are charged irrespective of whether the train path is utilised.⁴
- 4.6 Clause 4.6(a) of the Proposed Undertaking describes the characteristics for the Indicative Services to which the ARTC will offer the Indicative Access Charges in clauses 4.6(b) and 4.6(c). The flagfall and variable components of the Indicative Access Charge are contained in clause 4.6(b). The excess network occupancy component of the Indicative Access Charge is contained in clause 4.6(c).

No Certainty in Access Charges for Non-Indicative Services

- 4.7 While the Proposed Undertaking contains Indicative Access Charges for Indicative Services, it does not provide any guidance as to what access charges would apply for services that fall outside the characteristics of Indicative Services (**Non-indicative Services**), for example passenger services.
- 4.8 The Indicative Access Charges in clause 4.6 of the Proposed Undertaking describe the typical characteristics of a freight service which are substantially different to the typical characteristics of a passenger service. Nowhere in the Proposed Undertaking does the ARTC set out or indicate what access charges will apply to passenger services.
- 4.9 As the characteristics of an Indicative Service in clause 4.6(a) of the Proposed Undertaking are based on a freight service, they bear no resemblance to the characteristics of a passenger service such as that operated by GSR. Table 1 compares the characteristics of the Indicative Service in clause 4.6(a) to the typical characteristics of passenger services operated by GSR.

Table 1

| Characteristic | Indicative Service (clause 4.6(a)) | GSR | Percentage Difference |
|-------------------|------------------------------------|-----------|-----------------------|
| Maximum axle load | 21 tonnes | 13 tonnes | 38% |
| Maximum speed | 110 km/h | 115 km/h | 5% |

⁴ Clause 4.5(b).

| | | | |
|----------------|---------------------------|------------|-----|
| Maximum Length | 1,800 metres ⁵ | 850 metres | 53% |
|----------------|---------------------------|------------|-----|

- 4.10 Table 1 shows that each of the characteristics of the Indicative Service (i.e. axle load, maximum speed and length) differ from the characteristics of services operated by GSR. As the Indicative Prices provided in clauses 4.6(b) and (c) of the Proposed Undertaking are offered by the ARTC for services having the characteristics of Indicative Services, the Proposed Undertaking is silent on an indicative price for passenger services or other Non-indicative Services.
- 4.11 Like freight services, passenger services have used the Network for many years and are continuing users of the Network. In fact, GSR has been a regular user of the Network since 1997 and trains of the type operated by GSR have been regular and customary users of the Network for over 30 years.
- 4.12 The Proposed Undertaking therefore lacks any guidance or certainty on the charges the ARTC will offer to Non-Indicative Services that are regular users of the Network. Any access undertaking offered by the ARTC for access to its Network should indicate what charges will apply to each train service type that is a regular and customary user of the Network (i.e. bulk, inter-modal, long-distance loco-hauled passenger and express self-powered passenger).

No Certainty in Calculation of Variable Component for Non-indicative Services

- 4.13 One of the components of the access charges in the Proposed Undertaking is a variable component, which is stated to be a function of distance and gross mass (clause 4.5(a)(i)).
- 4.14 While it is said that the variable component of access charges will be a function of distance and gross mass, the Proposed Undertaking provides no guidance on how distance and gross mass will be used to calculate the variable component for Non-indicative Services. The Proposed Undertaking only provides indicative access charges for the variable component for Indicative Services (clause 4.5(b)).
- 4.15 The ARTC therefore has significant discretion with respect to the calculation of the variable component for Non-indicative Services, such as passenger services, and, thus, there is no certainty regarding the pricing of the variable component for these Services.

No Certainty in Calculation of Flagfall Component for Non-indicative Services

- 4.16 One of the components of the access charges in the Proposed Undertaking is a flagfall component which is fixed and specific to each train service type and segment (clause 4.5(a)(ii)).

⁵ Note that the maximum train length is 1500 metres east of Adelaide and Parkes (until Capital Expenditure is commissioned on the Segment Melbourne - Macarthur).

- 4.17 The calculation of the flagfall component provides for a limited degree of price discrimination on the basis of the train service type. However, the Proposed Undertaking does not set out how the flagfall component will be calculated for each different train service type. The Proposed Undertaking only provides indicative access charges for the flagfall component for Indicative Services (clause 4.6(b)).
- 4.18 The ARTC therefore has a broad discretion for how it will calculate the flagfall component and there is no certainty in the Proposed Undertaking as to how the ARTC will price this component, particularly for Non-indicative Services such as passenger services.

Example 1: Flagfall component under 2002 Undertaking as example of likely flagfall component under Proposed Undertaking

As a result of the ARTC's broad discretion in the calculation of the flagfall component under the 2002 Undertaking, in practice, the ARTC has applied five different flagfall rates to the different train paths on its Network. This is shown in Annexure B to this submission which is the ARTC's published Track Access Reference Pricing effective from 1 July 2006.

While the charges in Annexure B were implemented by the ARTC under the 2002 Undertaking, the structure of the access pricing in clause 4.5(a) of the 2002 Undertaking is the same as that in the Proposed Undertaking, with the exception only that the 2002 Undertaking did not include the excess network occupancy component that is included in clause 4.5(a)(iii) of the Proposed Undertaking. Except for that component, as for the Proposed Undertaking under clause 4.5(a) of the 2002 Undertaking, the access charges comprise:

- a variable component, being a function of distance and gross mass (\$/gtkm); and
- a flagfall component, being fixed and specific to each train service type and segment (\$/km).

The different flagfall rates charged by the ARTC in practice are not set out in the 2002 Undertaking, nor are they specified in the Proposed Undertaking. As a result of the 2002 Undertaking's silence on flagfall rates for Non-Indicative services, the ARTC had a broad discretion with respect to the flagfall rates it charged in practice.

In practice, the ARTC has charged a higher flagfall charge for passenger services than for general freight services. In the absence of an indicative access charge for passenger services in the Proposed Undertaking that includes an indicative flagfall rate, GSR has every reason to believe that the ARTC will continue this practice.

In practice, the ARTC has chosen to set four different flagfall rates for the relevant train paths depending on the speed, maximum axle loading and the type of the train and a separate rate for off peak train paths as shown in table 2. These flagfall rates have been formulated by the ARTC and imposed on access seekers pursuant to the broad discretion regarding the determination of flagfall rates conferred on the ARTC by the 2002 Undertaking.

Table 2

| Flagfall | Train type and description | Trains |
|-----------------|--|--------------------------|
| Super Premium | Max train speed 130kph / Max Axle Loading up to 20 tonnes | XPT |
| Premium | Max train speed 115kph / Max Axle Loading up to 20 tonnes | Passenger, Bi-modal |
| High | Max train speed 110kph / Max Axle Loading up to 21 tonnes / Length up to corridor standard max | Superfreighters |
| Standard | Max train speed 80kph / Max Axle Loading up to 23 tonnes / Length up to corridor standard max | Express goods |
| Low | Off peak train paths | Metro shunts/work trains |

The consequences of the failure of the Proposed Access Undertaking to provide for certainty with respect to the flagfall component is shown in the following example of pricing for a typical freight train and a passenger train on the Adelaide Parkeston section of the Network. This section of the track is 1,992.5 kilometres long. The charges that apply to this section of the track are shown in table 3.

Table 3

| Adelaide - Parkeston Route | | |
|-----------------------------------|------------|--|
| Variable price per '000GTK | \$2,301 | |
| Flagfall Price/Train | | |
| Premium | \$6,696.88 | Max train speed 115kph / Max Axle Loading up to 20 tonnes (passenger & bimodal trains) |
| High | \$5,802.29 | Max train speed 110kph / Max Axle Loading up to 21 tonnes / Length up to corridor standard max (superfreighters) |
| Standard | \$5,073.99 | Max train speed 80kph / Max Axle Loading up to 23 tonnes / Length up to corridor standard max (express goods) |
| Low | \$4,464.23 | Off peak train paths (metro shunts/work trains) |

A typical freight train is likely to fall within the standard flagfall rate. Such a train is likely to be 1,500m long and have a gross mass of 3,380 tonne. Passenger trains fall

within the premium flagfall rate. A typical passenger train is likely to be 595m long and have a gross mass of 1,134 tonnes.⁶

The application of these access prices to a typical freight train and a typical passenger train on the Adelaide-Parkeston Route results in the charges shown in the table 4.

Table 4

| | Freight Train | Passenger Train |
|--|----------------------|------------------------|
| Length (m) | 1,500 | 595 |
| Mass (tonne) | 3,380 | 1,134 |
| Total '000's GTKs (Mass x 1,992.5km) | 6,734.6 | 2,259.5 |
| GTK Charge (Variable) (Total '000 GTKs x 2.301) | \$15,496 | \$5,199 |
| Flagfall Charge (Fixed) | \$5,074 | \$6,697 |
| Total Charge | \$20,570 | \$11,896 |
| Ratio of Fixed Flagfall to Total | 25% | 56% |
| Total Charge expressed as a price per '000 GTK | \$3.05 | \$5.26 |

Table 4 shows that the total access charge is less for a typical passenger train than for a typical freight train. This reflects the fact that a passenger train is approximately 33% of the mass and 33% of the length of the freight train. However, despite being 33% of the mass and length, the total charge for the passenger train is almost 60% of that of the freight train. This anomaly is the result of the high flagfall price set by the ARTC for passenger trains. In the absence of certainty with respect to the flagfall component in the Proposed Undertaking, the ARTC would likely continue to formulate flagfall rates under the Proposed Undertaking in this manner.

No Certainty in Calculation of Excess Network Occupancy Component

- 4.19 Another component of the access charges in the Proposed Undertaking is the excess network occupancy component. The Proposed Undertaking provides no certainty with respect to what the network occupancy charge is for, how it will be calculated, how much it will be and when it will be applied.

⁶ Based on an average over 12 months of the length and gross mass of GSR's Indian Pacific train service.

4.20 The excess network occupancy component is described in clause 4.5(a)(iii) as:

'a function of time (\$/hr or part thereof) sought by an applicant for a train path on the network which is in excess of a reasonable allowance for section run times of the applicable train service type, dwells for crossing and passing of other trains, and a specified allowance for the reasonable requirements for operational activities whilst the train occupies the network.'

The excess network occupancy component will be charged irrespective of whether a train path is used (clause 4.5(b)).

4.21 This is a new charge being introduced by the ARTC. The excess network occupancy component was not a component of the access price structure in the 2002 Undertaking. GSR has not encountered this charge in its dealings with other providers of below rail services or in previous dealings with the ARTC.

4.22 The ARTC has indicated that it has introduced this charge in order to better reflect, in pricing, the consumption of Network capacity incurred where an access seeker requires to take excess time on the network in excess of standard allowances.⁷ However, it is not clear from the Proposed Undertaking how this charge will be applied.

4.23 The ARTC has also indicated that the network occupancy charge would:⁸

- only apply where the operator requests excess time on the network, including time in the mainline or in passing loops; and
- not apply to schedules with excess transit times due to unavailability of a better train path.

However, none of this is set out in the Proposed Undertaking.

4.24 Further, while s4.6(c) of the Proposed Undertaking sets out the network occupancy component for an Indicative Service, there is no guidance on what the network occupancy charge might be for Non-indicative Services such as passenger services.

4.25 GSR submits that there should be greater clarity regarding:

- what the concept of 'network occupancy' means;
- how the ARTC will calculate the reasonable allowance for section run times of the train service type, dwells for crossing and passing other trains; and
- how the ARTC will calculate the specified allowance for the reasonable requirements for operational activities while the train occupies the network.

⁷ ARTC's Explanatory Guide to the Proposed Undertaking, Attachment B, p54.

⁸ Ibid at 55.

Undertaking Inconsistent with Appropriateness Criteria

- 4.26 In summary, the pricing provisions in the Proposed Undertaking permit the ARTC great flexibility in how it can charge for access to the Network. This has the result that the Proposed Undertaking provides no certainty to users of the Network with respect to the charges they may face. In particular:
- 4.26.1 there is no Indicative Access Charge for passenger services or for other Non-indicative Services;
 - 4.26.2 there is no certainty in the Proposed Undertaking as to how the ARTC will price the variable component for Non-indicative Services on the basis of distance and gross mass;
 - 4.26.3 there is no certainty in the Proposed Undertaking as to how the ARTC will price the flagfall component for Non-indicative Services on the basis of train service type;
 - 4.26.4 it is unclear what the excess network occupancy component is, how it will be calculated or how and when it will be applied.
- 4.27 The ARTC's failure to disclose its pricing for Non-Indicative Services in the Proposed Undertaking means that its pricing for Non-Indicative Services cannot be subjected to scrutiny by access seekers or the ACCC in its current process of determining whether or not to accept the Undertaking, having regard to the Appropriateness Criteria.
- 4.28 In the absence of sufficient information for the ACCC to properly scrutinise the ARTC's pricing for Non-Indicative Services, the ACCC could not be affirmatively satisfied that the flagfall and variable components of the access price charged by the ARTC during the term of the Proposed Undertaking would be consistent with the Appropriateness Criteria.
- 4.29 The Proposed Undertaking therefore fails to satisfy its stated objective in clause 1.2(b) to 'use transparent and detailed methodologies, principles and processes for determining access revenue limits, terms and conditions'.
- 4.30 It is not in the interests of access seekers to have uncertainty in the price terms in an access undertaking. Access seekers require certainty in pricing so they can make efficient decisions about whether or not to access the infrastructure. As a result of its failure to provide potential users of the Network with sufficient information to satisfy themselves that pricing procedures have been correctly applied, or to themselves model access pricing for example when considering possible new services, the pricing regime in the Proposed Undertaking fails to promote efficient utilisation of the Network.
- 4.31 As lack of regulatory certainty adversely affects incentives for efficient investment and use of infrastructure, the Proposed Undertaking is inconsistent with the Appropriateness Criteria of the objects of Part IIIA and the public interest. Further, the uncertainty in the price terms in the Proposed Undertaking does not necessarily advance the legitimate business interests of ARTC.

- 4.32 In the circumstances, the ACCC should determine that it is not appropriate to accept the Proposed Undertaking.

Recommended Amendments to Proposed Undertaking

- 4.33 If the ACCC is minded to follow the process it followed in assessing the 2002 Undertaking of making recommendations to the ARTC for amending the Proposed Undertaking, GSR suggests that the ACCC should consider recommending that the following amendments be made to the Proposed Undertaking:

Recommended Amendments

1. Part 4 of the Proposed Undertaking be amended to provide for Indicative Access Prices for each train service type that is a regular and customary user of the network (i.e. bulk, inter-modal, long-distance loco-hauled passenger and express self-powered passenger).
2. Clause 4.5 of the Proposed Undertaking be amended to clarify the concept of 'network occupancy' and the application of the charge for excess network occupancy in clause 4.5(a)(iii).

5 Undertaking Fails to Provide For Effective Price Discrimination

Introduction

- 5.1 For the reasons set out in this submission, GSR submits that the ACCC should reject the Proposed Undertaking on the basis that the track access pricing regime in Part 4 of the Undertaking does not provide for effective price discrimination between different types of train services. In particular, the Proposed Undertaking fails to provide for effective price discrimination for passenger and freight services.
- 5.2 As noted previously at paragraph 4.17, the Proposed Undertaking provides for limited price discrimination in the flagfall component. It also contemplates that the ARTC may price discriminate where the service characteristics are substantially different, or the services operate in different end markets.⁹ However, it does not specifically provide for price discrimination on this basis.
- 5.3 The failure of the Proposed Undertaking to specifically provide for effective price discrimination, in particular with respect to freight and passenger trains, and to thereby provide efficiency incentives means that it is inconsistent with the Appropriateness Criteria. Accordingly, the ACCC should reject the Proposed Undertaking.

Pricing Principles

- 5.4 In deciding whether it would be 'appropriate' to accept the proposed undertaking, the ACCC is required to take into account the pricing principles specified in s44ZZCA (Pricing Principles). The Pricing Principles provide that access price structures should allow price discrimination when it aids efficiency.
- 5.5 GSR submits that specifically incorporating price discrimination in the ARTC's access undertaking would aid efficiency for two reasons:
- 5.5.1 it will ensure that customers whose use is less sensitive to price changes are allocated proportionately more common costs (including sunk costs and non-sector specific overheads and operating costs), so minimising the distortions to network use, and associated efficiency loss due to recovery of those costs (**Efficiency Factor 1**); and
- 5.5.2 it will ensure that the ARTC recovers its incremental costs of providing the service from those who impose the cost on the ARTC in proportion to the users' imposition of those costs, so sending price signals for efficient use of the ARTC network (**Efficiency Factor 2**),
- (together, **the Efficiency Factors**).

⁹ Clause 4.3(b) of the Proposed Undertaking prohibits price discrimination where the characteristics of the services are alike and the applicants are operating in the same end market.

- 5.6 Having regard to the Efficiency Factors, GSR submits that pricing for access to below rail services should differentiate between passenger and freight trains for the following reasons:
- 5.6.1 passenger train services have a higher elasticity of demand than freight trains; and
 - 5.6.2 passenger trains impose far lower variable costs on the ARTC as the provider of the rail infrastructure than freight trains
- 5.7 As the Proposed Undertaking does not specifically provide for effective price discrimination and efficiency incentives, it is inconsistent with the Pricing Principles.

Efficiency Factor 1

Recovery of Sunk Costs from Least Price Sensitive Users Promotes Efficiency

- 5.8 It is well recognised that Ramsey Pricing enables the access provider to recover its common or sunk costs in a way which promotes efficiency. Under Ramsey pricing the monopoly provider of infrastructure recovers the majority of its sunk costs from the least price elastic users of the infrastructure. As users with low price elasticity have greater willingness to pay for services, they are less likely to stop using such services on the basis of higher prices. Pricing in this way promotes efficiency as it enables the access provider to recover its sunk costs while minimising the deadweight loss to consumers.
- 5.9 This proposition was accepted by the Productivity Commission in its recent Productivity Commission Inquiry Report of 22 December 2006 on Road and Rail Freight Infrastructure Pricing (**PC Report**) in coming to its conclusion there may be efficiency gains where access pricing regimes for access to below rail services discriminate between freight and passenger services.
- 5.10 The PC Report looked at potential causes of inefficiency in road and rail freight. In particular, it sought to address the concern that the different charging arrangements for use of road and rail infrastructure might be distorting modal choices and leading to inefficient investment decisions. The PC Report concluded that:
- 5.10.1 price discrimination amongst passenger and freight train services could facilitate the infrastructure owner's efficient recovery of its common costs (i.e. sunk costs and non-sector-specific overheads and operating costs); and
 - 5.10.2 there were potential efficiency gains from allocating proportionately more common costs to customers with lower price elasticity of demand.
- 5.11 The PC Report noted that how common costs are allocated by rail infrastructure providers can "significantly affect the division of costs between passenger and freight trains, and provides rail infrastructure providers with opportunities to price discriminate between freight and passenger rail operators" (at p139).
- 5.12 The PC Report found that "generally there are potential efficiency gains from allocating proportionately more common costs to customers whose use is less

sensitive to price changes." The PC Report noted that this has been recognised by the ACCC in its decision on the ARTC's 2002 Undertaking where the ACCC said (p123):

'If the ARTC is not able to generate sufficient cash flow to replace assets as becomes necessary, the longer-term viability of the industry is compromised. The Commission notes that in these circumstances, a degree of price discrimination, even between different users operating the same type of service, may be a desirable practice. Such an approach may facilitate the efficient allocation of common costs. That said, this would only be appropriate to the extent that it does not distort competition in downstream markets.'

5.13 While the PC Report considered that passenger services were generally less price sensitive than freight rail services, it appeared to be referring to passenger services run by the government. The Report noted that government run passenger services are likely to be maintained, even if access charges relating to them are increased. GSR observes that this is because most of the operating costs of government run passenger services are funded by community service obligation payments which means that any increases in track access charges are easily absorbed.

5.14 With respect to long distance passenger services, the Report noted (at p 140) that:

5.14.1 "[l]ong-distance passenger rail services operated by the private sector and subject to competition from low cost airlines are likely to be more price sensitive" than government operated passenger services; and

5.14.2 "[p]assenger services operated on the ARTC interstate track by GSR are not initiated or operated by government and may be more price sensitive than passenger services elsewhere".

This is consistent with the conclusion of the URS Report in Annexure A to this submission that GSR's passenger services have a higher price elasticity than freight services.

5.15 The PC Report recognised that while there were examples of below rail operators employing price discrimination based on demand elasticity, it appeared that there was a reluctance to practice such pricing despite it being potentially consistent with efficient outcomes (p143). The Report referred to the ARTC's inclusion of a commitment not to differentiate charges for users of like services in its 2002 Undertaking to the ACCC as an example of this (p144).

5.16 The PC Report concluded that (p144):

'While access regimes do not explicitly preclude rail infrastructure providers from allocating proportionately more common costs to less price-sensitive users, it is not clear that the benefits of such pricing are adequately reflected in the approach of regulators. Concern that price discrimination could distort downstream markets in some instances should not be a reason for precluding or discouraging it where it has the potential to lead to more efficient outcomes (and, importantly, enable additional revenue to be obtained to allow the ongoing provision of a service).'

5.17 For these reasons, one of the recommendations of the PC report was that the Pricing Principles, in particular with respect to multi part pricing and price discrimination,

should be incorporated into all State and Territory rail access regimes (pLIX). The Productivity Commission therefore recognised the significance of the Pricing Principles and price discrimination to the delivery of efficient outcomes by rail access regimes.

Passenger Services Have a Higher Elasticity of Demand

- 5.18 As passenger train services have a higher elasticity of demand than freight train services, consistently with Efficiency Factor 1 they should bear a lower proportion of the common costs than freight train services.
- 5.19 The URS Report in Annexure A to this submission contains information on the nature of GSR's end markets and the price elasticity of demand for different passenger groups. URS observes from its literature review and preliminary analysis of GSR's data on price and demand levels that the demand for passenger services is slightly inelastic to moderately elastic and that demand for long distance passenger services is more price sensitive in the longer term.
- 5.20 The URS report also comments from its literature review on the price elasticity of demand of rail freight services. The Report concludes that the price elasticity of demand for rail freight services appears to be decidedly inelastic. Accordingly, the elasticity of demand for passenger services is higher than that of freight train services.
- 5.21 Synergies Economic Consulting also recognises the competitive nature of the market for, and resultant price elasticities of long distance passenger services in its May 2007 report on the weighted average cost of capital for the ARTC's Network¹⁰ (**Synergies Report**). The Synergies Report states that:¹¹
- 'The market for passenger travel [including travel between regional centres and long-distance leisure travel] is very competitive. With increasing competition in the aviation industry it is increasingly difficult for rail to compete with domestic airlines for market share. There are also other substitutes for rail travel, such as cars and buses. The overall demand for passenger travel services will have some sensitivity to income and therefore be correlated with domestic economic activity.
- The long-distance train travel market is a niche market. It not only competes with other transport alternatives, but it is also part of the broader tourism industry, competing with coach tours, cruising, island or resort holidays, and travel to overseas destinations. Demand for this service will be particularly sensitive to income, particularly at the luxury end of the market.'
- 5.22 The Synergies Report concludes that passenger services will have a high price elasticity of demand.¹² The Report observes that if the ARTC sought to increase

¹⁰ The ARTC submitted the Synergies Report to the ACCC in support of its Proposed Undertaking.

¹¹ Page 30 of the Synergies Report.

¹² Page 31 of the Synergies Report.

prices to providers of passenger services, they may be unable to pass them onto customers and remain competitive.

5.23 In addition, GSR observes that the operators of passenger train services should bear a lower proportion of the common costs than the operators of freight train services because they have a lower willingness to pay access charges than operators of freight train services and, accordingly, are more likely to change their use of the Network in response to the recovery of common costs through those charges.

5.24 Table 5 below compares the total revenue earned by a typical freight train service on the Perth-Sydney and Adelaide-Melbourne routes to that earned by a passenger train on those routes. Due to the nature of the respective end markets, passenger services earn less revenue per train service and per train kilometre travelled compared to freight. The table illustrates why the operators of passenger train services have a lower willingness to pay access charges than the operators of freight train services.

5.25 Table 5 is based on an example of an average GSR passenger service¹³ compared to a typical freight train service¹⁴ travelling through the ARTC network. For the purpose of illustration, in the case of Sydney to Perth, the rates from the ARTC network have been applied across the whole length of the journey, notwithstanding that the track infrastructure between Perth and Kalgoorlie is not owned or managed by the ARTC..

Table 5

| Route | Sydney - Perth | | Adelaide - Melbourne | |
|-----------------|----------------|------------|----------------------|-----------|
| | Freight | Passenger | Freight | Passenger |
| Length (metres) | 1500 | 595 | 1500 | 236 |
| Mass (tonne) | 3380 | 1134 | 3378 | 423 |
| Total Revenue | \$230,000 | \$139,000* | \$43,000 | \$11,000* |
| Revenue/km | \$54 | \$32 | \$51 | \$13 |

*Ticket revenue

5.26 The table suggests that the willingness to pay of passenger services operators is lower than freight service operators' willingness to pay. The divergence between the willingness to pay of passenger and freight service operators should be reflected in any access pricing regime for access to ARTC's Network.

¹³ The typical passenger service for the Sydney-Perth route in table 5 is based on the average train length and mass of trains on GSR's Indian Pacific service during a 12 month period. The typical passenger service for the Adelaide-Melbourne route in table 5 describes trains on GSR's Overland service at their maximum possible length and mass with all carriages in service.

¹⁴ The typical freight train service in the table is based on November 2005 container rates applied to a standard freight train service at 80% loading.

Efficiency Factor 2

Variable Pricing that Reflects Differentials in Variable Costs Promotes Efficiency

- 5.27 The proposition that efficiency is promoted by regulation that provides for a monopoly provider of infrastructure to recover its variable costs of providing access to that infrastructure directly from those that cause the costs is also well accepted in economics. Pricing that is consistent with Efficiency Factor 2 sends price signals to users that promote efficient utilisation of existing infrastructure and efficient investment in augmenting that infrastructure to increase available capacity.
- 5.28 For pricing to create incentives for efficient use of infrastructure, it should reflect the differential cost of access to the service provided by the infrastructure. Such costs include costs associated with consumption of infrastructure capacity.
- 5.29 Effective price discrimination between passenger and freight trains will have the result that access prices will bear a closer relationship to the relative variable costs imposed on the ARTC by the different train types.

Passenger Trains Impose Lower Variable Costs

- 5.30 As passenger trains impose lower variable costs than freight trains on the rail infrastructure, consistently with Efficiency Factor 2, operators of passenger trains should be charged a lower variable charge for the use of the rail infrastructure than operators of freight trains. Pricing in this way will promote efficient utilisation of the Network.
- 5.31 Passenger trains impose lower variable costs on rail infrastructure than freight trains for the following reasons:
- 5.31.1 passenger trains are much lighter than freight trains;
 - 5.31.2 passenger carriages have lower axle loads than freight trains; and
 - 5.31.3 passenger trains are more efficient in their use of network capacity as they are faster, more reliable and more flexible than freight trains.
- 5.32 The axle load and the total weight of a train have a significant bearing on the track infrastructure maintenance costs caused by the train. The fact that passenger trains are lighter than freight trains and have lower axle loads than freight trains means that they have proportionately less impact on the infrastructure. Therefore each tonne of passenger train imposes less track infrastructure maintenance costs on the ARTC than each tonne of freight train.
- 5.33 The total weight and length of a passenger train is typically 33% to 50% less than a freight train.¹⁵ The Indian Pacific is an average of 1,134 tonnes and the Overland is

¹⁵ Refer to table 4 which shows an analysis of a typical freight train and a typical passenger train on the Adelaide-Parkeston Route.

approximately 423 tonnes, whereas the average weight of freight trains that operate on the Network would be approximately 3,400 tonnes.

- 5.34 GSR's carriages have axle loads of approximately 13 tonnes, whereas the typical axle loads of freight wagons using the Network is approximately 20-22 tonnes.
- 5.35 A Queensland Competition Authority report provides an analysis of the Queensland Rail network and track infrastructure maintenance costs and states that for a train of the same total mass, a 6 tonne reduction in axle load results in a corresponding 8.3% reduction in maintenance cost.¹⁶ This means that not only do passenger trains cause less track infrastructure maintenance costs because they are lighter than freight trains, but each tonne of passenger train causes less maintenance costs than each tonne of freight train because the axle load of a passenger train is less.
- 5.36 The ARTC has recognised in its Explanatory Guide to the Proposed Undertaking that 'additional time occupying the network consumes greater capacity'.¹⁷ Since passenger trains are generally faster than freight trains, they consume less Network capacity. The following table 6 compares the average transit times (in minutes) of a typical freight train between Adelaide and Melbourne to those of a typical passenger train.

Table 6

| | Freight | Passenger | Passenger transit time as a % of freight transit time |
|---------------------------|----------------|------------------|--|
| Total Transit Time | 889 | 633 | 71% |
| Total Waiting Time | 189 | 66 | 35% |
| Net Transit Time | 699 | 567 | 81% |

- 5.37 Table 6 shows that on the Adelaide to Melbourne corridor GSR consumes only 81% of the track time of a freight train and therefore consumes only 81% of the track capacity of a freight train. In addition to consuming less of the track capacity, this means that GSR consumes less of ARTC's other resources such as train control staff and signalling staff.
- 5.38 Further, passenger trains have more flexible operating characteristics than freight trains. Because a passenger train is much shorter than a typical freight train it can use more of the passing loops on the Network and this therefore contributes to consuming less available mainline track capacity than a typical freight train.

¹⁶ Queensland Competition Authority, Working Paper 2 "Usage-related infrastructure maintenance costs in railways" December 2000, p23.

¹⁷ In Attachment B at p54.

5.39 Passenger trains are more reliable than freight trains. GSR's passenger trains' on-time performance is approximately 75%, whereas the on-time performance of freight trains on the Network is approximately 40-50%. GSR notes that on-time performance is measured as arriving/departing within 15 minutes of the scheduled arrival/departure time.

5.40 The below table 7 shows the percentage average on time arrival/departure performance of GSR's Indian Pacific Service for the 2005/06 financial year.

Table 7

| | Arrival | Departure | Average |
|---------------------------------|---------|-----------|------------|
| Q3 2005 | 85.9% | 73.3% | 79.6% |
| Q4 2005 | 64.1% | 74% | 69.1% |
| Q1 2006 | 62.9% | 78.1% | 70.5% |
| Q2 2006 | 78.7% | 92.3% | 85.5% |
| Average FY 2005/2006 | | | 76% |

5.41 Table 7 shows that the Indian Pacific's average on time arrival/departure performance for this period was 76%. This compares with an average on-time performance of services on the East-West corridor of ARTC's Network (on which the Indian Pacific operates) for the 2005/2006 financial year of approximately 50%. This is shown in the following extract in table 8 from p87 of the ARTC's Annual Report for 2005/2006 which sets out the percentage on time performance of all services (including freight and passenger) on the East-West Corridor for the 2005/2006 financial year.

Table 8

| | Q3 2005 | Q4 2005 | Q1 2006 | Q2 2006 | Total |
|----------------------------------|---------|---------|---------|---------|-------|
| % All Services Arriving on Time | 56.5% | 50.4% | 55.1% | 48.0% | 52.6% |
| % All Services Departing on Time | 54.1% | 47.3% | 51.0% | 45.7% | 49.7% |

5.42 This example demonstrates that passenger train services are more reliable than freight train services. This factor, in addition to the fact that passenger trains are faster and have a lower mass and lower axle loads than freight trains, should be taken into account in access pricing that is consistent with Efficiency Factor 2.

Enhancement to Efficiency Achieved by Discriminatory Pricing

- 5.43 The minimisation of the efficiency distortion achieved by a discriminatory pricing regime under which passenger services pay a lower access price than freight services is enhanced by the fact that passenger services such as those operated by GSR use only a small amount of the capacity of the Network compared with freight.
- 5.44 Therefore only a small increase in the price of the service to freight operators relative to the reduction of price charged to passenger operators would be necessary for the ARTC to recover its costs of providing the service from operators of the service.

Example 2: Flagfall component under 2002 Undertaking as example of consequences of a failure to take into account discriminatory pricing

Example 1 in the grey shaded box in section 4 of this submission of the flagfall rates set by the ARTC under the 2002 Undertaking, and in particular table 4 in that example, of pricing for a typical freight train and a passenger train on the Adelaide Parkeston section of the Network also shows the consequences of the failure of the Proposed Access Undertaking to provide for effective price discrimination between passenger and freight services.

To the best of GSR's knowledge, the ARTC seeks to recover a proportion of its fixed costs of the rail infrastructure through the imposition of the flagfall component of the access charge. Previous comments by the ARTC suggest that it does not seek to recover its variable costs of the rail infrastructure through the flagfall component. In particular, the ARTC indicated in respect of the 2002 Undertaking that the fixed charge represented around 33% of total revenue in circumstances where a significant proportion of rail infrastructure costs are fixed.¹⁸ This suggests that the ARTC recovers only fixed costs through the fixed flagfall charge.

The ARTC has stated in a submission to the Essential Services Commission that "ARTC's approach to structuring rail access charges has been to keep the flagfall component of charges relatively small (approximately 30% of the average total charge) so as to promote intra-modal competition."¹⁹ This shows that the ARTC recognises the benefit of a lower fixed charge and has established a principle for the proportion of the total access charge that the flagfall component should comprise. However, as shown in Example 1, the ARTC has not applied this principle to its pricing for passenger trains.

Example 1 demonstrates that the flagfall rate charged by the ARTC to passenger train operators is so high in relation to the variable usage charge that any relationship between the access charge and the relative variable costs imposed on the ARTC by users of the service is destroyed. This means that the passenger pays a higher total unit price than freight trains when expressed as a total charge per GTK. This is

¹⁸ ACCC's Decision on ARTC's 2002 Undertaking, section D5.2.3, p128.

¹⁹ ARTC, Submission on the ESC's Draft Decision, www.esc.vic.gov.au, April 2006.

inconsistent with Efficiency Factor 2 because price signalling for efficient use for passenger trains is destroyed by the ratio of the fixed flagfall component of the total charge.

GSR observes that the high flagfall rate for passenger services set by the ARTC pursuant to the 2002 Undertaking shown in Example 1 also results in an access charge that is inconsistent with Efficiency Factor 1 because it does not reflect the fact that passenger services have a higher elasticity of demand than freight services.

The ARTC has informed GSR in previous correspondence that it determines the different flagfall rates it charges in practice on the basis of train speed and axle load, rather than having regard to the end markets. That is, the ARTC did not determine the different flagfall rates it charged under the 2002 Undertaking having regard to the different demand elasticities of access seekers. The ARTC stated in a letter to GSR of 30 November 2005 in respect of the flagfall rate charged by the ARTC that:

'Differentiation in pricing is based upon the speed and axle load characteristics of paths and not the end market. It is not the ARTC's position to determine the viability of various rail user operations.'

In addition to this being contrary to Efficiency Factor 1, this creates perverse incentives for access seekers to operate slower trains which consume greater network capacity.

The scale of the flagfall rates charged by the ARTC increases depending on the maximum speed of the train. The ARTC charges higher flagfall rates for trains with a higher maximum speeds. However, it is the slower trains that are less efficient because they have greater transit times and therefore consume more network capacity than faster trains. Currently trains on the Network are forced to travel slower than their normal operating speed and there are delays built into their timetables to accommodate slower-running trains on the Network. Under the flagfall rates charged by the ARTC in practice faster trains are currently bearing the costs of the inefficiency of slower trains. By pricing in this way, the ARTC is acting in a manner that contravenes the Pricing Principles, in particular the principle that 'access pricing regimes should provide incentives to reduce costs or otherwise improve productivity'.

Rather than setting flagfall rates by reference to maximum train speeds, consistently with Efficiency Factor 2, the ARTC should take into account train speeds in setting its variable access charges. Further, instead of charging slower trains a lower access charge, slower trains should bear the cost of their own inefficiency by being charged a higher variable usage charge than faster trains. This will offer an incentive to users of the Network to improve productivity and efficiency.

The effect of the high flagfall rates charged by the ARTC to passenger services in practice is to discourage new investment in passenger rail services and to reduce the capability of passenger rail to compete with alternative modes of travel, resulting in a reduction in competition in end markets

Conclusion on Consistency with Pricing Principles

- 5.45 As noted above, the reluctance of rail infrastructure providers such as the ARTC to practice price discrimination based on demand elasticity was recognised in the PC Report. Despite the conclusion in the PC Report that price discrimination between passenger and freight services could be efficiency enhancing, the ARTC has failed to take into account the Efficiency Factors and include specific provisions for price discrimination in the Proposed Undertaking.
- 5.46 The failure of the Proposed Undertaking to take into account the Efficiency Factors and include specific provisions for price discrimination on the basis of whether the service is a passenger or freight service means that the access pricing in the Undertaking will not deliver efficient outcomes. The Proposed Undertaking is therefore inconsistent with the Pricing Principles.

Objects of Part IIIA

- 5.47 The failure of the Proposed Undertaking to include an effective discriminatory pricing regime for freight and passenger services, is also inconsistent with the objective of Part IIIA to promote the efficient operation of, use of and investment in the infrastructure by which the services are provided, thereby promoting effective competition in upstream and downstream markets.
- 5.48 Setting access prices without taking into account the willingness to pay of those providing passenger rail services may have the effect that passenger rail services in rural, remote and regional Australia are priced out of the market compared to alternate modes of public transport where they exist. It may also have the result that in general the demand for these services is artificially reduced, resulting in a significant decline in the services provided and an inefficient use of the rail network. Further, ignoring the end market's willingness to pay may also reduce competition in the market for the use of rail infrastructure by favouring one category of users over another (for example, freight over passenger) by creating a pricing regime that favours one category of operator.
- 5.49 An effective discriminatory pricing regime will promote the objectives of Part IIIA as it will seek to ensure that users of the infrastructure are charged on the basis of the Efficiency Factors. It would also not prevent the ARTC from recovering its common costs and incremental costs of providing the service.
- 5.50 Under an effective discriminatory pricing regime, the ARTC will recover its incremental costs from operators in proportion to the costs imposed by those operators. This will encourage all operators to behave in a manner that minimises the costs imposed on access providers. Access pricing that is equitable and responds to the costs imposed by operators will drive a more efficient rail market.
- 5.51 An effective discriminatory pricing regime will promote effective competition in the upstream market for transport infrastructure services (including by rail and road). It will also promote effective competition in the downstream markets for passenger transport services and freight transport services (including by rail and road).

Public Interest, Including the Public Interest in Having Competition in Markets

- 5.52 The failure of the Proposed Undertaking to include an effective discriminatory pricing regime for freight and passenger services is inconsistent with the public interest, including the public interest in having competition in markets.
- 5.53 The National Competition Council has recognised that economic and regional development, including employment and investment growth, is relevant to its consideration of the public interest criteria in the context of assessing applications for declaration of essential facilities under Part IIIA of the Act.²⁰
- 5.54 A viable passenger rail industry is:
- 5.54.1 necessary to service the transport needs of the community, particularly for those in rural, remote and regional communities who have limited access to other forms of transport; and
 - 5.54.2 vital to Australia's tourism economy, particularly rural, remote and regional economies.
- 5.55 GSR's train services link Australia's capital cities with many rural, remote and regional communities, thus servicing the needs of those communities. In this way GSR's passenger services contribute to regional development, including employment and investment growth.
- 5.56 GSR's passenger train services also bring large numbers of tourists to rural, remote and regional communities generating significant economic activity in the regional economies of Australia. By way of example, based upon data from reports prepared by the Northern Territory Government and NT Airports Pty Ltd, GSR estimates that through its services provided by The Ghan it delivered sufficient tourist visits to Alice Springs to generate tourism expenditure of \$50.8 million and create 190 jobs.²¹ Extrapolation from these figures suggests that GSR directly and indirectly generates 1,400 jobs and \$1 billion of economic activity across Australia per annum.

²⁰ National Competition Council's 'The National Access Regime: A Guide to Part IIIA of the *Trade Practices Act 1974*, Part B, Declaration', p21, paragraph 2.32.

²¹ A report on the Northern Territory economy and tourism prepared by the Northern Territory Government estimates that each tourist visit to the Northern Territory in 1999/00 generated expenditure of \$1,125 (\$1,337 in 2005/06 dollars, escalated at 2.5%): Northern Territory Government, Northern Territory Economy 1999-00 www.nt.gov.au. A report prepared on behalf of NT Airports in 2004 estimates that one job is created in the Northern Territory for every 200 visitors: NT Airports Pty Ltd, the Economic Significance of Alice Springs Airport, 1 June 2004, p vii www.ntapl.com.au. Approximately half of the passengers on The Ghan board, leave or make a stop-over at Alice Springs. Therefore in 2005 The Ghan generated 38,000 tourist visits to Alice Springs. This indicates that the tourists brought to or from Alice Springs by The Ghan generated expenditure of \$50.8 million and created 190 jobs.

5.57 GSR operates a number of services that are viable in the short-run but may not be sustainable in the long-term, depending on the contribution to ARTC's common fixed costs required by the access charges in relation to provision of those services. If this situation continues the passenger rail industry will deteriorate and eventually diminish to the point of extinction or rely increasingly on direct government funding. This is in large part due to the magnitude and structure of the access prices and the proportion of ticket revenue that the access charges consume. Implementation of appropriate access pricing will ensure that these services are not reduced or eliminated due to unsustainable access charges.

5.58 The benefits of introducing access prices appropriate to passenger trains include:

- ensuring the future viability of long distance passenger train services;
- removing the inequity in the access charges applying to passenger and freight trains.
- improving competition in the passenger rail market;
- increased benefits to those members of the community with limited travel options;
- increased benefits to the tourism industry;
- increased benefits to the rural, remote and regional communities visited by GSR; and
- promoting increased and more efficient use of the rail network.

Interests of Persons who Might Want Access to the Service

5.59 The failure of the Proposed Undertaking to include an effective discriminatory pricing regime for freight and passenger services is inconsistent with the interests of persons who might want access to the service.

5.60 Pricing which does not attribute the incremental costs of providing the services to those that incur those costs and which does not take into account the different demand elasticity of users of the service in recovering the common costs, is inconsistent with the interests of persons who might want access to the service.

5.61 The following table 9 which is based on information in table 4 of this submission summarises the failure of the ARTC's access prices under the 2002 Undertaking to take into account the interests of those who want access to the service. Without provision for effective price discrimination in the Proposed Undertaking, it is likely that the ARTC will perpetuate this pricing structure if the Proposed Undertaking is accepted by the ACCC.

Table 9

| | Typical Freight | Typical Passenger |
|-------------------|------------------------|--------------------------|
| Incremental costs | Higher | Lower |

| | | |
|-----------------------|--------------|---------------|
| Variable rate per GTK | Same | Same |
| Elasticity of demand | Lower | Higher |
| Fixed flagfall rate | Lower | Higher |
| Total rate/GTK | Lower | Higher |

Legitimate Business Interests of ARTC

5.62 While the current pricing regime may not be inconsistent with the legitimate business interests of the ARTC, a pricing regime which specifically provided for discriminatory pricing would also not be inconsistent with the legitimate interests of the ARTC. This is because adoption of such a pricing structure does not prevent an access provider, such as the ARTC, from recovering its incremental costs of providing the service and common costs.

5.63 Further, discriminatory pricing may promote increased use of the Network by passenger services. As passenger services tend to use the Network at different times to freight users, this would result in increased overall capacity utilisation, rather than substitution of one use for another. This would result in incremental revenue for the ARTC that it will not receive in the absence of discriminatory pricing.

Recommended Amendments to Proposed Undertaking

5.64 If the ACCC is minded to follow the process it followed in assessing the 2002 Undertaking of making recommendations to the ARTC for amending the access undertaking, GSR considers that the ACCC should recommend that the following amendments be made to the Proposed Undertaking:

| Recommended Amendments | |
|-------------------------------|---|
| 1. | Part 4 of the Proposed Undertaking be amended to specifically provide for price discrimination on the basis of train service type. |
| 2. | Part 4.5(a)(i) of the Proposed Undertaking be amended to provide that the variable component of the access charge is a function of distance, gross mass, axle load and speed. |
| 3. | Part 4 of the Proposed Undertaking be amended to provide that the flagfall component is fixed and specific to each Segment and is set according to the elasticity of demand of different users of the Network.. |

6 Other Matters

Other Matters - Proposed Undertaking

6.1 GSR also submits that the ACCC cannot be satisfied that it is appropriate to accept the Proposed Undertaking because the following terms and conditions of that Undertaking do not strike an appropriate balance between the Appropriateness Criteria.

6.1.1 Clause 1.2 of the Proposed Undertaking sets out the objectives of the Undertaking. In particular, clause 1.2(c) states that an objective of the Proposed Undertaking is to strike an appropriate balance between a subset of the Appropriateness Criteria. That is, the objects of Part IIIA of the Act and the pricing principles specified in s44ZZCA of the Act, which matters are set out in s44ZZA(3)(aa) & (ab) of the Act, are omitted from the list of matters in clause 1.2(c) of the Proposed Undertaking. GSR submits that, if it is to be appropriate for the ACCC to accept the Proposed Undertaking, the object clause in the Proposed Undertaking should reflect all, not some, of the Appropriateness Criteria.

6.1.2 Clause 3.4(d)(ii) of the Proposed Undertaking requires that, in order to negotiate an Access Agreement with ARTC for use of the Network, the applicant, or a related party of the applicant, must not be currently, or have been in the previous 2 years, in material default of:

- any agreement with ARTC; or
- any agreement in accordance with which access to rail infrastructure not managed by ARTC has been provided to the applicant or a related party of the applicant.

GSR submits that the requirement that neither the applicant nor any related party be in material default of any agreement in accordance with which access to rail infrastructure *not* managed by ARTC has been provided to the applicant or a related party of the applicant is not commercially reasonable or appropriate. It exceeds what is required to satisfy ARTC's legitimate business interests and is overly onerous for access seekers. In addition, GSR submits that an appropriate prudential requirement would be one that requires only no material default giving rise to a right of termination under the relevant agreement, in accordance with its terms.

6.1.3 Clause 3.10(b)(iii) provides for the negotiation period in relation to an Access Agreement to cease on the expiration of 3 months from the commencement of the negotiation period, unless both parties agree to extend the negotiation period. This would enable ARTC to frustrate the negotiation and provision of third party access, as there is no provision for 'stopping the clock' for ARTC's internal processes and ARTC is able to refuse to extend the negotiation period following the expiration of 3 months.

- 6.1.4 Clause 3.10(b)(iv) and (v) provides for ARTC to end the negotiation period 'if ARTC is of the view that the negotiations are not progressing in good faith towards the development of an Access Agreement within a reasonable period of time' or to refer this matter to the arbitrator under clause 3.12.4 for determination. GSR observes that the rights of ARTC under this provision are asymmetric and ARTC's (and, thus, the arbitrator's) view that the negotiations are not progressing in good faith is not required to be a 'reasonable' one. Again, these provisions would appear to facilitate the frustration of third party access by ARTC.
- 6.1.5 Clauses 3.10(d) and 5.3(b) of the Proposed Undertaking provide for ARTC, in circumstances where 2 or more applicants are seeking mutually exclusive access rights, to finalise an Access Agreement with the applicant with whom it is able to agree terms and conditions that are most favourable to ARTC. GSR submits that, in these circumstances, an appropriate approach having regard to the Appropriateness Criteria would be:
- to require ARTC to finalise the Access Agreement that strikes an appropriate balance between the Appropriateness Criteria;
 - to qualify the provisions by reference to grandfathering of an existing user's existing access rights; or
 - deletion of these provisions.
- 6.1.6 Clause 3.12.4(b)(vi)(I) limits the public benefits which the arbitrator is required to take into account in deciding a dispute to those from having competitive markets. This is not consistent with the public interest Appropriateness Criterion which requires the ACCC to consider all matters of public interest, including but not limited to the public interest in having competition in markets, in assessing the Proposed Undertaking. Accordingly, GSR submits that the public interest referred to in clause 3.12.4(b)(vi)(I) should not be limited by reference to the public interest in having competitive markets.
- 6.1.7 Clause 4.1 of the Proposed Undertaking requires ARTC to 'develop its Charges with a view to achieving the objective set out in clause 1.2(c)'. As discussed above, however, the objective set out in clause 1.2(c) of the Undertaking is to strike an appropriate balance between a sub-set of the Appropriateness Criteria that, notably, does not include the objects of Part IIIA of the Act and the pricing principles specified in s44ZZCA of the Act, which matters are set out in s44ZZA(3)(aa) & (ab) of the Act. GSR submits that, if it is to be appropriate for the ACCC to accept an access undertaking, any discretion conferred on the access provider by the relevant undertaking in relation to setting access charges should be governed by all of the Appropriateness Criteria, including in particular the pricing principles set out in s44ZZA(3)(aa) & (ab).
- 6.1.8 The Proposed Undertaking requires that an Access Agreement entered into thereunder must address the matters set out in Schedule C (Essential

Elements of Access Agreement) (see, in particular, clause 3.11(b)). The matters include:

- contracted Trains Paths are subject to the matters outside ARTC's control, safety and Network Management Principles; and
- ARTC having the ability to vary (temporarily or permanently), remove and review contracted Train Paths in appropriate circumstances and to take possession of the Network for repairs, maintenance, new works and upgrades (see Schedule C).

However, the Proposed Undertaking makes no provision for ARTC to use its best endeavours to provide an alternative path at the same or similar cost.

6.1.9 ARTC is permitted to charge a fee for Capacity Analysis undertaken as part of the preparation of an Indicative Access Proposal in certain circumstances (clause 5.1(b)). GSR submits that capacity management is a function that would be undertaken by ARTC in the ordinary course of operating the Network. For this reason, GSR submits that it is reasonable to expect that the costs of capacity management are already reflected in the Indicative Access Charges set out in the Proposed Undertaking, with the result that provision in the Undertaking for ARTC to charge a fee for Capacity Analysis is not appropriate having regard to the Appropriateness Criteria.

6.1.10 Clause 5.2(a) of the Proposed Undertaking to pay a reservation fee to ARTC where a Network user seeks new or additional access rights more than 6 months prior to the commencement of operating the services to which those rights relate. The imposition of a reservation fee payable to ARTC in relation to the period between reservation of the access rights and commencement of the services is inconsistent with the notice to be provided by a Network user for cancellation of a scheduled train path under clause 9.9(c) & (d) of the Track Access Agreement. These notice periods are as follows:

- For a scheduled train path of up to 5 years duration, a notice period of 1 year or the balance of the term of the scheduled train path, whichever is the lesser; and
- For a scheduled train path of up to 10 years duration, a notice period of 2 years or the balance of the term of the scheduled train path, whichever is the lesser.

GSR submits that this asymmetry in the rights of ARTC and Network Users adversely affects the interests of access seekers and is unnecessary to satisfy the legitimate business interests of the provider.

Other Matters - Track Access Agreement

6.2 GSR also submits that the ACCC cannot be satisfied that it is appropriate to accept the Proposed Undertaking because the following terms and conditions of the Track

Access Agreement set out in Schedule D to the Proposed Undertaking, with which any Access Agreement entered into under the Undertaking must be consistent (see clause 3.11(b) of the Proposed Undertaking), do not strike an appropriate balance between the Appropriateness Criteria.

- 6.2.1 Clause 2.8 of the Track Access Agreement provides that a user's rights to train paths excludes any right to access the Network for the purpose of the user's light engine movements other than through negotiated ad hoc entitlements. This is both impractical and inefficient, and is not in the interests of access seekers, as it necessitates a discrete negotiation for each of train paths and the associated rights for light engine movements, on each occasion that there is a change in a user's existing train paths.
- 6.2.2 Clause 4.8 of the Track Access Agreement provides that interest is payable by a Network user in respect of default on due payment of any amount payable to ARTC under the Agreement. The provision does not exclude any amount ARTC claims is payable but which is disputed by the Network user. That is, interest would appear to accrue under clause 4.8 of any disputed amounts. GSR submits that this is not appropriate, in particular because it is adverse to the interests of access seekers and unnecessary to satisfy ARTC's legitimate business interests.
- 6.2.3 Clause 6.2 of the Track Access Agreement permits ARTC to give notice of speed and weight restrictions, when required by the condition of the Network, and the Network user must comply with these restrictions. However, the Agreement does not provide for payment by ARTC of any reduction in the access charges payable by the user or compensation. GSR submits, by requiring the Network user to bear the cost of any restrictions imposed by reason of the Network's condition, the Agreement reduces ARTC's incentives to invest in, and maintain, the Network. This aspect of the Agreement is also inconsistent with the interests of access seekers.
- 6.2.4 Clause 9.9(c) & (d) of the Track Access Agreement require the following notice be provided by a Network user for cancellation of a scheduled train path:
- For a scheduled train path of up to 5 years duration, a notice period of 1 year or the balance of the term of the scheduled train path, whichever is the lesser; and
 - For a scheduled train path of up to 10 years duration, a notice period of 2 years or the balance of the term of the scheduled train path, whichever is the lesser.

These notice periods are inconsistent with the obligation established by clause 5.2(a) of the Proposed Undertaking to pay a reservation fee to ARTC where a Network user seeks new or additional access rights more than 6 months prior to the commencement of operating the services to which those rights relate. GSR submits that this asymmetry in the rights of

ARTC and Network Users adversely affects the interests of access seekers, is unnecessary to satisfy the legitimate business interests of the provider and discourages the efficient use of the Network. GSR considers that an appropriate approach would be to permit a Network user to vary or reduce a specified portion of its trains paths each year on the provision of more limited notice, e.g. 3 months. This would enable Network users to respond to dynamic changes in the downstream markets, so promoting the efficient use of the Network.

- 6.2.5 Clause 15.7(b) of the Track Access Agreement provides that, if a party restores or repairs a damaged asset and that repair or restoration results in improved functionality of an asset, that improved functionality must not be regarded as a betterment and no reduction or adjustment of the costs of repair or restoration will be made on that account. That is, by reason of clause 15.7(b), the improved functionality will not be taken into account in determining the amount payable by the indemnifying party, despite the fact that the extent and cost of the betterment would be beyond the control of the indemnifying party. Accordingly, GSR submits that clause 15.7(b) is not appropriate having regard to the Appropriateness Criterion. In particular, it is adverse to the interests of access seekers and is not necessary to satisfy ARTC's legitimate business interests.

Conclusion on Other Matters

- 6.3 In conclusion, the Proposed Undertaking and the Track Access Agreement contain a number of asymmetrical and onerous terms that are unnecessary to satisfy the ARTC's legitimate business interests and are inconsistent with the Appropriateness Criteria. Accordingly, GSR submits that the ACCC should reject the Proposed Undertaking and, if the ACCC is so minded it may request that the ARTC consider revisiting and revising each of these clauses.

Annexure A

Economic Analysis Report by URS

'Price Sensitivity in Long Distance Passenger Rail'

Annexure B

ARTC's published Track Access Reference Pricing

Effective from 1 July 2006



Reference Prices

ARTC Track Access Reference Pricing

Applicable Rates - Effective from **1 July 2006** - *The rates below exclude GST*

| | Adelaide - Parkeston | Crystal Brook - Broken Hill | Tarcoola - Alice Springs | Pt Augusta - Whyalla | Adelaide - Pelican Pt | Adelaide - Melbourne | Melbourne - Albury | Appleton Dock Jct - Footscray Rd | Footscray Rd - Appleton Dock / Swanston Dock |
|---|-------------------------|--------------------------------|-----------------------------|-------------------------|--------------------------|-------------------------|-----------------------|-------------------------------------|--|
| Variable price per 000GTK | \$2.301 | \$2.601 | \$4.310 | \$4.066 | \$3.618 | \$2.646 | \$2.304 | \$0.00 | \$0.00 |
| Flagfall Price/Train | | | | | | | | | |
| Super Premium | | | | | | | \$833.56 | | |
| Premium | \$6,696.88 | \$788.38 | \$27.14 | \$154.39 | \$48.17 | \$1,776.04 | \$570.96 | | |
| High | \$5,802.29 | \$683.27 | \$23.79 | \$134.68 | \$41.61 | \$1,606.59 | \$501.21 | 39.48* | 16.91* |
| Standard | \$5,073.99 | \$608.73 | \$19.82 | \$119.97 | \$36.54 | \$1,512.90 | \$389.00 | 39.48* | 16.91* |
| Low | \$4,464.23 | \$524.50 | \$18.11 | \$102.93 | \$31.75 | \$1,405.97 | \$389.00 | \$0.00 | \$0.00 |
| Indicative Distance (kms)' | 1992.5 | 372 | 6.35 | 73 | 19.3 | 847.5 | 307.1 | N/A | N/A |
| * Flat Fee / # APT Interface / ' Distances are indicative only, for defined metropolitan locations contact ARTCFlagfall Application | | | | | | | | | |

| Flagfall | Train type and description | Trains |
|---------------|--|--------------------------|
| Super Premium | Max train speed 130kph / Max Axle Loading up to 20T | XPT |
| Premium | Max train speed 115kph / Max Axle Loading up to 20T | Passenger, Bi-modal |
| High | Max train speed 110kph / Max Axle Loading up to 21T / Length up to corridor standard max | Superfreighters |
| Standard | Max train speed 80kph / Max Axle Loading up to 23T / Length up to corridor standard max | Express goods |
| Low | Off peak train paths | Metro shunts/work trains |

The Rates above exclude GST10% GST will be added to the total invoice, based on the above rates.
 Note: The location and distances are approximate, some price rounding may occur on the final invoice. **This price list is only valid for ARTC business customers.**

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Annexure B

ARTC's published Track Access Reference Pricing

Effective from 1 July 2006



Reference Prices

ARTC Track Access Reference Pricing

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|---|-------------------------|--------------------------------|-----------------------------|-------------------------|--------------------------|-------------------------|-----------------------|-------------------------------------|--|
| Variable price per 000GTK | \$2.301 | \$2.601 | \$4.310 | \$4.066 | \$3.618 | \$2.646 | \$2.304 | \$0.00 | \$0.00 |
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| Super Premium | | | | | | | \$833.56 | | |
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| Low | Off peak train paths | Metro shunts/work trains |

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REPORT

Price sensitivity in long distance passenger rail

Prepared for

Great Southern Rail

GSR 0010

31 July 2007

SHORT REPORT

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Executive Summary

This short report prepared by URS on behalf of Great Southern Railways (GSR) aims to provide information on the nature of GSR's end markets and the implications of this for price elasticity of demand for different passenger groups.

GSR is the dominant national long distance passenger rail (LDPR) provider. It operates three principal return services from Adelaide to Darwin, Melbourne to Adelaide and Sydney to Perth. It therefore accesses rail track in WA, SA, Victoria, NSW and NT.

Recently GSR has experienced a serious decline in the number of passengers buying concession tickets on the Ghan for the travel sector Alice Springs to Darwin after GSR had to increase ticket prices because both the Northern Territory and the Commonwealth Government reversed their policy of providing a refund for this passenger group. This is suggestive of a high degree of price elasticity for this service.

The project has analysed GSR's own passenger data for the three routes over the period 2000 – 2006 although data for the Alice Springs to Darwin sector is only available since 2004. It has also looked at relevant Australian and International literature for research based evidence of price elasticities for LDPR.

The major determinants of demand for LDPR are population size, international tourism numbers, incomes, government policies particularly with respect to concessional travel allowances, service levels particularly as they relate to timeliness and availability and the price of rail services relative to competing transport modes. Australia's unique geographic and demographic characteristics will also impact LDPR.

There has been a general decline in tourism GDP since 2000-01, especially in the NT, which means that real demand has been decreasing. There has also been an increase in competition from cheap airlines in recent years and a major increase in the size of the passenger motor vehicle fleet.

As a result the contribution of rail to the overall transport task has been declining even though the size of the market has been increasing.

The literature review has revealed that the demand for rail travel is generally in the range from slightly inelastic to moderately elastic and that concession holders are more price sensitive than the rest of the population. It also suggests that the demand for LDPR is more price sensitive in the longer term and the greater the competition the more elastic is the demand.

A preliminary analysis of GSR's own data on prices and demand lends support to these conclusions. Evidence for concession holders on the Ghan are suggestive of high levels of price elasticity while there is also evidence of price elasticity for certain sectors and fares on the Overland and the Indian Pacific – particularly over the longer term.

Section 1

Background

1.1 The market for long distance passenger rail (LDPR)

GSR is the dominant national LDPR provider. It operates three principal return services from Adelaide to Darwin, Melbourne to Adelaide and Sydney to Perth. It therefore accesses rail track in WA, SA, Victoria, NSW and NT. These provide tourist services as well as serving as a form of transport for government and business travellers and for family visitations. GSR has a market share of 2 per cent of the passenger rail network (IBISWorld, 2007).

The Australian rail industry contributes over \$5 billion in value to the Australian economy representing 0.5 per cent of GDP and LDPR is estimated to represent about 1.2 per cent of this (ARA, 2006). The Australian Railway Association estimates that the national rail passenger task stood at 11.2 billion passenger kilometres in 2004-05 with 2.2 billion comprising non-urban passengers and that 44,100 people were employed in the industry (ARA, 2005).

Passenger transport within Australia is undertaken by cars, bus, aircraft and rail. The Australian rail passenger industry can be broken down to urban, inter city (or inter-state) and the domestic and international tourist market. GSR operates in the last two of these markets

The contribution of rail to the overall transport task has been declining even though the size of the market has been increasing. Between 1970-71 and 2003-04, intercity passenger movements on ten main routes grew at an average annual rate of 3.9 per cent (BTRE, 2006). Within this total air travel grew at an average rate of 5.9 per cent, car travel at a rate of 2.0 per cent while rail travel declined at a rate of 0.9 per cent per annum. The overall growth rate was boosted by stronger GDP growth in the past 15 years and the impact of airline deregulation which also explains the faster rate of growth for air transport.

The major determinants of demand for passenger rail are population size, international tourism numbers, incomes, government policies particularly with respect to concessional travel allowances, service levels particularly as they relate to timeliness and availability and the price of rail services relative to competing transport modes. For competition with car travel this relative price is most influenced by the price of fuel.

The macro operating environment for rail will also affect the overall competitiveness of rail transport. Australia is a relatively large country with a small population and hence a very low population density of 2.4 persons per square kilometre. This compares with 28.6 for the US, 328.3 for Japan and figures generally well over 100 for most of Europe (PC 1999). These factors provide air transport with a natural advantage on many inter-capital routes.

Long distance rail travel will also be influenced by the health of the Australian tourism market. The tourism share of GDP was 3.9 per cent in 2005-06 (up from only 3.1 per cent in 2004-05). Notwithstanding the increased contribution in 2005-06, the GDP share of tourism has been trending down for the past 10 years.

Tourism consumption was \$80.6 billion in 2005-06 comprising \$20.5 billion from international tourism and \$49.6 billion from domestic tourism and \$10.5 billion from business/government (ABS 2007b). Of this total 17.0 per cent (\$13.7 billion) is spent on long distance passenger transportation. If the BTRE estimates of rails' share are applied to this figure then approximately \$164 million is spent on long distance rail transport.

LDPR has also suffered as a result of declines in the real prices of motor vehicle, which has resulted in an increase in the size of the fleet from 8.3 million in 1993 to 10.4 million in 2003 (ABS, 2005). Data on motor vehicle registrations in subsequent years would suggest that this number may be approaching 11.0 million. This trend has also been exacerbated by an increase in imports of small and medium sized motor vehicles which has reduced average fuel consumption rates for the fleet.

In 1970-71 rail transport accounted for 6.5 per cent of all passenger movements but this had declined to 1.2 per cent by 2003-04 (BTRE, 2006). On routes of interest to GSR similar trends are apparent. For Melbourne- Adelaide the proportion of rail movements fell from 10.8 per cent to 2.8 per cent, for Eastern States-Perth from 13.1 per cent to 0.6 per cent and for Eastern States-Northern Territory from 10.3 per cent to 6.3 per cent.

Section 1

Background

The major drivers behind these trends were the increased affordability of motor vehicles and the deregulation of the aviation industry which saw major improvements in efficiency (and subsequent reductions in prices) and expanded terminal capacity.

1.2 The Outlook for LDPR

The outlook for LDPR will be dependent on a range of factors including economic growth, population growth, domestic and international tourism trends, motor vehicles numbers, performance of LDPR relative to competing modes and running costs.

The BTRE forecasts (BTRE, 2006) that total passenger kilometres are likely to grow at an annual rate of 2.5 per cent – somewhat below the rate of growth for the period 1970-71 to 2003-04. The lower growth is principally the result of lower GDP growth in the forecast period.

Rail travel is expected to grow by an annual average rate of 0.6 per cent. As a result, at the end of the forecast period (2030-31) rails' share of annual passenger movements is expected to fall from the current 1.2 per cent to 0.7 per cent.

Although lower GDP growth (largely due to the ageing of the Australian population will adversely affect the overall growth of long distance passengers, the ageing of the population will work to partially offset the impact of this on rail passenger numbers as demand for concessional rail travel (attracting subsidies from the government) rises.

Oil prices will also have a significant impact on the demand for rail travel. Prices are at record highs at the moment thus giving a competitive boost to rail relative to air and motor vehicle transport.

Increasing concern over the environmental impacts of transportation are also likely to work in rails favour domestically even though it may have an adverse impact on the number of international visitors. According to the ARA 90 per cent of transport greenhouse gas emissions are attributable to road while only 2.2 per cent is attributable to rail (ARA, 2007).

Section 2

Literature Review

A brief review of the literature indicates rail demand is dependent on a number of factors. These include income, price, inter-modal competition, travel time and perceptions of the quality of service. This section summarises findings from relevant journal articles on factors that influence demand for long distance rail travel and identifies implications for travel on GSR's three routes.

2.1 Expected elasticity from literature

Economists typically look at consumer sensitivity of price movements by calculating price elasticities. Price elasticity of demand is the percentage change in demand in response to a percentage change in prices. This is generally expected to be a negative for most goods as a price increase will decrease demand. Demand is said to be "price-elastic" if the absolute value of the own-price elasticity is greater than one, i.e., a price change elicits a more than proportionate change in the quantity demanded. A "price-inelastic" demand has a less than proportionate response in the quantity demanded to a price change, i.e., an elasticity between 0 and -1.0. The important difference here is that with inelastic demand price increases can be used to increase revenues whereas with elastic demand price increases decrease revenue.

The elasticity of demand for a product is generally acknowledged to be very dependent on the degree of competition in the supply of that product. As noted in the Weighted Average Cost of Capital Review prepared by Synergies Economic Consulting Pty Ltd to support the Australian Rail Track Corporation's 2007 Rail Access Undertaking to the Australian Competition and Consumer Commission "The market for passenger travel is very competitive. With increasing competition in the aviation industry it is increasingly difficult for rail to compete with domestic airlines for market share. There are also other substitutes for rail travel, such as cars and buses."

The review also states in a discussion of demand sensitivity that "The long distance train travel market is a niche market. It not only competes with other transport alternatives, but it is also part of the broader tourism industry, competing with coach tours, cruising, island or resort holidays, and travel to overseas destinations."

The review concludes that "The market for passenger services will also have a high price elasticity of demand, so if ARTC sought to increase prices to these service providers they may be unable to pass them onto customers and remain competitive" (Synergies Economics Consulting, 2007)

Oum et al 1990 found elasticities for intercity leisure travel between -1.6 and -1.4. This study is quoted by the Productivity Commission as "the most widely cited international review". There are a number of other studies which estimate price elasticity of demand for leisure rail travel. A review of a range of papers (Oum et al, 1992; Goodwin, 1992¹) found that intercity rail travel demand elasticity ranges from -0.12 to -1.52. A study by Ahern and Anandarajah of rail travel in Ireland found a price elasticity of -1.08.

There is some evidence that in relation to the Ghan, elasticity is expected to be higher for Gold Kangaroo fares than for Red Kangaroo economy fares. An Australian study found that price elasticity of demand for different types of fares (economy to first class) ranges from -0.47 to -1.9 (average -1.2) for non-pensioners and -0.5 to -2.2 (average -1.35) for pensioners (Hensher, 2006). We can therefore expect elastic demand for the higher priced fares. This is consistent with a study of intercity rail travel in Great Britain that found that price elasticity is not constant and can be expected to increase with increasing price (Wardman, 1997).

The literature also suggests that long run elasticity is expected to be higher than short run elasticity (Ahern, 2006) meaning that changes in price over the long term will be higher than those experienced in the short term.

An extensive summary of the literature with regards to the own price elasticity of rail freight was carried out recently by the PC (PC 2006). The PC once again refer to the World Bank report by Oum quoted

¹ Quoted in Ahern, 2006

Section 2

Literature Review

above which found a range of elasticities from -0.4 to -1.2 with a most likely range of -0.7 to -1.1 suggesting a strong probability of inelastic demand.

When looking at Australian studies the PC noted the paucity of comprehensive studies due to the difficulty in obtaining the necessary data. The PC noted that most of these studies relied on estimates from other Australian and overseas results and therefore suggested that caution should be exercised with these results given "the unique attributes" of the Australian transport system.

In response to these deficiencies the PC constructed their own model of road and rail freight based on data from the BTRE collected between 1964 and 2000. The PC found a total own price elasticity for rail freight of -0.254 and an own price elasticity for bulk freight of -0.149 suggesting a decidedly inelastic demand for rail freight. In discussing this result the PC suggests that this may be due to a lack of viable alternatives, particularly in the case of coal, and the relatively small share of input costs for grains and minerals. The PC also noted that this inelastic demand estimate conforms with the theoretical expectation that derived demand functions such as those for production inputs (which rail freight is) are inelastic relative to the demand for final goods and services.

2.2 Factors specific to the Ghan and Indian Pacific

A number of factors influence demand for leisure rail travel with important implications for demand on the Ghan and Indian Pacific routes. These include income, car ownership, time scale, price, distance, accessibility, luxury perception and inter-modal competition.

2.2.1 Mode share/ inter-modal competition

Demand for rail travel is strongly influenced by inter-modal competition:

- Low mode share is expected given both the relatively high price of train travel, constraints on the number of departure times per week and age of rolling stock. The inference is that the competitive position of alternative modes is improving over time relative to rail leading to higher expected price elasticity.
- Decreases in the cost of other modes of travel increases the demand elasticity for rail travel. With the Ghan and Indian Pacific if discount air travel prices fall and the price of cars fall then price sensitivity of rail passengers will increase. At the same time, rail passengers are expected to change modes in response to falling prices of substitutes. For example, discount air services represent a lower cost travel alternative. Conversely, if fuel prices increase then the price sensitivity of rail demand is expected to decrease.

2.2.2 Other factors

For a number of reasons the price sensitivity is expected to be higher on the Ghan and Indian Pacific routes than on other routes in Australia and around the world:

- Sensitivity can be expected to increase with increasing prices and distances (Ahern, 2006; Wardman, 1997). With a price for the Adelaide to Darwin journey of \$400 to \$2000 and Sydney to Perth \$400 to \$1850, higher demand elasticity for these routes can be expected.
- The luxury perception of rail travel is very important in determining income elasticity (the increase in demand due to an increase in income). In the UK income elasticity is positive which reflects a perception of rail travel as a luxury good (Wardman, 2006) whereas in France and Ireland rail travel is seen as an inferior good and increases in income tend to see travellers opting for other modes of transport (Ahern, 2006). The inferior good perception in Ireland is driven by the fact that some routes have rolling stock from the 1970's and this is expected to change with upgrades in 2006. With the Ghan not having major upgrades since the 1970's it is possible that increasing incomes sees increased demand for other modes of travel and declining rail demand.

Section 2

Literature Review

- On a given service, elasticity is higher for luxury/ first class fares than for economy fares (Hensher, 2006). For the Ghan this means that we expect higher demand elasticity for Gold Kangaroo fares than for Red Kangaroo fares.

2.2.3 Implications

There has been an overall drop in demand for the Ghan and Indian Pacific leading to the conclusion that rail travel is losing mode share. Given the factors that influence the mode choice and price elasticity, improvements to the rolling stock would be expected to halt the decline in patronage on these two services, especially since there have been no major upgrades since the 1970's.

We expect higher demand elasticity on the Ghan and Indian Pacific than on other routes due to:

- Age of rolling stock, with no major upgrades since the 1970's
- Increasing competition from alternative modes through falling prices and year by year improvements in cars
- Large distance and consequently high price of the ticket
- Low mode share.
- Discount airfares from Adelaide to Darwin and Sydney to Perth
- Those with lower incomes, such as pensioners, are generally more sensitive to price increases given their ability to pay (Hensher, 1998). Those aged 65+ make relatively more inter-urban rail trips and the contributing factors are relatively low car ownership, fare discounting, geographical dispersion of families and driving long distances is less attractive for the elderly (Wardman, 2000). These two points would raise an expectation of overrepresentation of pensioners on the Ghan and Indian Pacific routes who are more price sensitive than the average population.

Section 3

GSR data

3.1 Data

The data analysed covers two lines: the Ghan from Adelaide (ADL) to Darwin (DRW) via Alice Springs (ASP) and the Indian Pacific from Sydney (SYD) to Perth (PER) via Adelaide. For most sectors data covers 2001 to 2006, although for the Alice Springs to Darwin line data is only available since 2004. As discussed in the first section, the primary interest of the analysis is the general price sensitivity and the difference in sensitivity between full fare tickets and concession customers. Therefore the analysis is only covering the two groups and ignores other groups such as children and backpackers.

GSR has the following price structure for concession holders, which have been unchanged from 2001 to 2007:

- Concession holders (PEN) get a general rebate.
- On top of that, concession holders from Victoria (PVV), New South Wales (PVN) and South Australia (PNS) get free vouchers for the proportion of the journey that is within the state.

Price changes were usually introduced on the first of April until recent years. In January 2006 a price increase was introduced for the concession holders on the Ghan north of Alice Springs and in January 2007 a price decrease was introduced on the same line. These two changes are only incorporated in data from April to make passenger number comparable over the year even though it may have affected passenger numbers earlier than that. Also in August 2006 a fuel surcharge was introduced with immediate effect. This price increase is not included in data until 2007.

All the sectors operate with two classes: The Gold Kangaroo service (GOL), which is first class and the Red Kangaroo service (RKD), which is second class. The quality of the service in each class and the train equipment have been constant in the period, which means that the demand should not be affected by service change over time.

For the purposes of this analysis, 6 years of data with yearly price changes is a fairly short series. For the Ghan from Alice Springs to Darwin, there is only information for three years. This means that it is hard to analyse responses over time, simply because of the low number of data points. It also limits the statistical models that can be applied to the data, for example it is not possible to apply time lag models to so short a time series.

As discussed in the literature review, the price elasticity of demand of train travel is closely related to the level of competition for passengers, generally reflected in prices for alternative travel modes. However, there is no information readily available to combine with the GSR demand and price data. Therefore we will abstract from this by comparing time series showing constant prices over time with time series showing increases or decreases over time. By doing this, the influence of external variables such as changes in plane fares or changes in customer preference that influence the demand in general will be partly eliminated, because all the data will be affected in the same way.

To do that it is necessary to define which lines have had a constant price over time. In the following, a time series is defined as constant when the per-year change is never above 10 percent and there are a pattern of positive and negative price movements over time.

List of sectors that have had constant prices over the last 6 years:

- The Ghan for all classes:
 - Alice Springs to Adelaide and Adelaide to Alice Springs
- The Indian Pacific
 - All sectors for ADU GOL
 - Sydney Perth, Perth Sydney, Adelaide Perth and Perth-Adelaide for ADU RKD
 - Sydney Perth, Perth Sydney, Adelaide Perth and Perth-Adelaide for PEN GOL

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GSR data

- Adelaide-Perth and Perth-Adelaide for PEN RKD
- Adelaide-Perth for PVN GOL
- All sectors for PVN RKD
- Perth-Adelaide for PVS GOL
- Perth-Adelaide for PVS RKD

The rest of the sectors have experienced real price increases.

3.2 Analysis and results

3.2.1 Results from the Ghan

In this section we include some basic stats about overall demand and prices with special emphasis on the Ghan. The current demand on the Ghan can be divided into two groups: The demand on the old line Adelaide to Alice Springs and the demand on the new line to Darwin, which opened in 2004. (Table 3-1) shows the demand in different fare categories.

Table 3-1 Total demand on the Ghan Adelaide to Alice Springs

| Year | ADU GOL | ADU RKD | Concession GOL | Concession RKD | Total demand |
|------|---------|---------|----------------|----------------|--------------|
| 2001 | 11,582 | 5,558 | 1,546 | 3,728 | 22,414 |
| 2002 | 10,840 | 4,775 | 1,200 | 4,048 | 20,863 |
| 2003 | 9,332 | 3,171 | 1,821 | 2,816 | 17,140 |
| 2004 | 8,926 | 3,699 | 2,281 | 2,347 | 17,253 |
| 2005 | 8,990 | 3,937 | 2,438 | 2,518 | 17,883 |
| 2006 | 8,742 | 3,485 | 1,747 | 2,109 | 16,083 |

Note: Total demand shown here does not cover all passenger categories on the Ghan

The table shows that half of the fares on Adelaide to Alice Springs are full price fares on first class. The next highest proportion of tickets is full price RKD, then concession RKD and finally concession GOL. This relationship is almost constant from 2001 to 2006.

For the new line to Darwin (Table 3-2), full fare GOL tickets are still around 50 percent of all tickets sold and full fare tickets RKD is around one fourth. But for the concession holders, the proportion of GOL tickets is much higher, comprising 22 percent of total demand.

Table 3-2 Total demand on the Ghan Adelaide to Darwin and Alice Springs to Darwin

| Year | ADU GOL | ADU RKD | Concession GOL | concession RKD | Total demand |
|------|---------|---------|----------------|----------------|--------------|
|------|---------|---------|----------------|----------------|--------------|

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GSR data

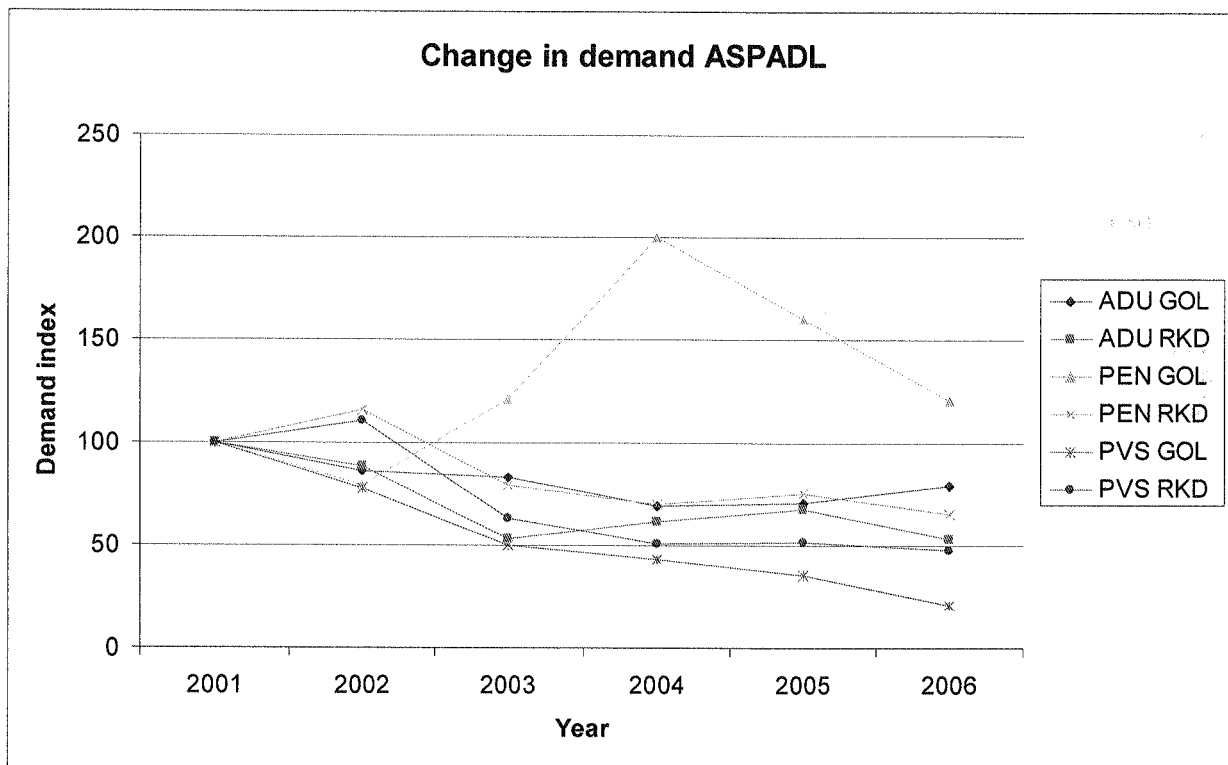
| | | | | | |
|------|-------|-------|-------|-------|--------|
| 2004 | 7,878 | 2,405 | 7,737 | 2,141 | 20,161 |
| 2005 | 8,560 | 2,242 | 8,191 | 1,789 | 20,782 |
| 2006 | 8,657 | 2,359 | 6,352 | 597 | 17,965 |

Note: Total demand shown here does not cover all passenger categories on the Ghan

The demand shown in the table also shows a drop off in demand of concession tickets equal to 30 percent. This fall in demand correlates with the time when Great Southern Rail raised its concession fare prices 15-30 per cent. This fare increase resulted from the Australian government's decision not to provide any funding to support concession fares for travel north of Alice Springs. The price increase was around 20 percent for the concession tickets and was followed by a decrease in demand on average of 31 percent. This has led to a situation where the revenue from the Ghan has decreased significantly in 2006 due to a decrease in revenue from concession holders of 17 percent compared to 2004 (personal communication with GSR).

For the Ghan from Adelaide to Alice Springs, there has been a large decrease in demand for all categories of tickets apart from the concession ticket in first class (PEN GOL). For all the sectors, the price has been constant since 2001 to 2006 before price increases of 15 to 25 percent in 2006 for the RKD class (depending on fare type).

Figure 3-1 Demand ASPADL



Note: Demand over time is shown as an index, where 2001=100

For the GOL class the average annual decrease in demand is 6 percent, in the RKD class it is 9 percent. There are no time series that show a consistent increase in price and it is therefore not possible to compare the constant time series with any other series for the sector Alice Spring to Adelaide.

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GSR data

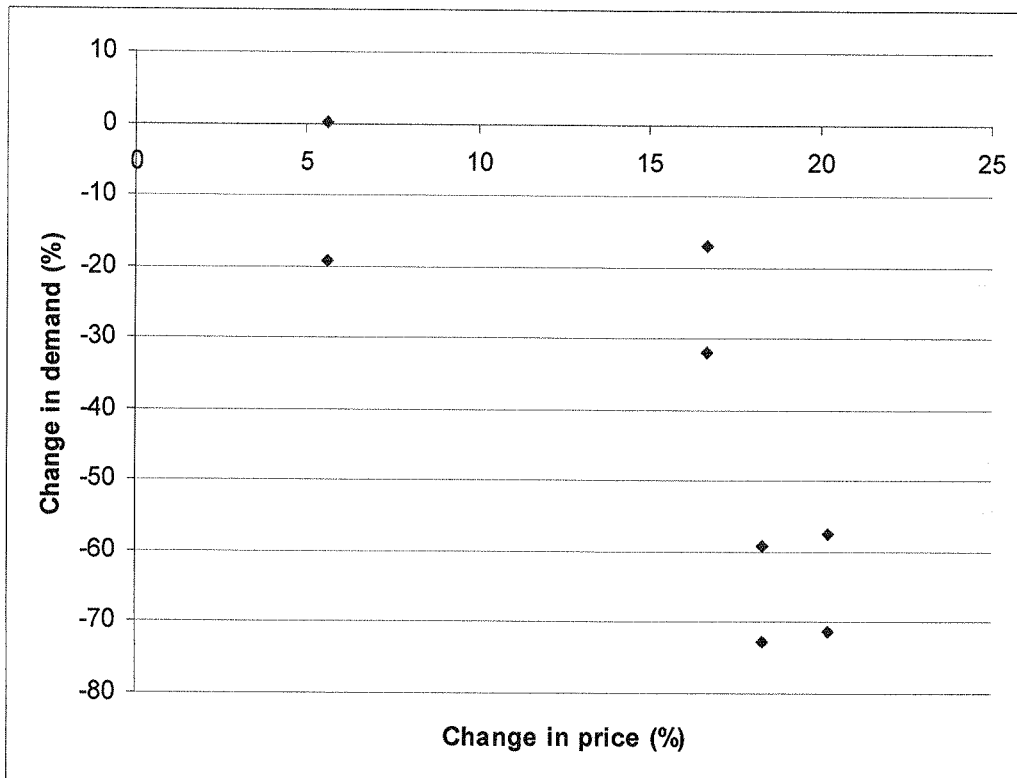
The Ghan Adelaide to Darwin line has only existed since 2004 and the time series is therefore limited to 3 years. But in this short time, there have been large movements in the demand and these appear to be closely correlated with price changes for concession holders. For the full price tickets, there has been a slight increase in demand between 2005 and 2006 of 5 percent for the GOL class and 1 percent for the RKD class. However, concession holder demand has decreased significantly in the period as shown in Table 3-3.

Table 3-3 Decrease in demand on the Ghan north of ASP 2005-06

| | Concession total | Concession GOL | Concession RKD |
|--------------------------|-------------------------|-----------------------|-----------------------|
| Percent decrease 2005-06 | 30 percent | 22 percent | 67 percent |

Figure 3-1 shows the relationship between change in demand and change in price for the year. It is easy to see that for this year, there is a strong correlation between an increase in price and a decrease in demand.

Figure 3-2 The relationship between price change and change in demand for 2004-05 and 2005-06 for Adelaide-Darwin and Alice Springs- Darwin



The result shown in Figure 3-2 can be used to calculate price elasticity for the line for the two years. These are given in Table 3-4, which shows that the concession holders have shown a high degree of price elasticity in that year.

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GSR data

Table 3-4 Price elasticity of concession holders for Adelaide-Darwin and Alice Springs- Darwin

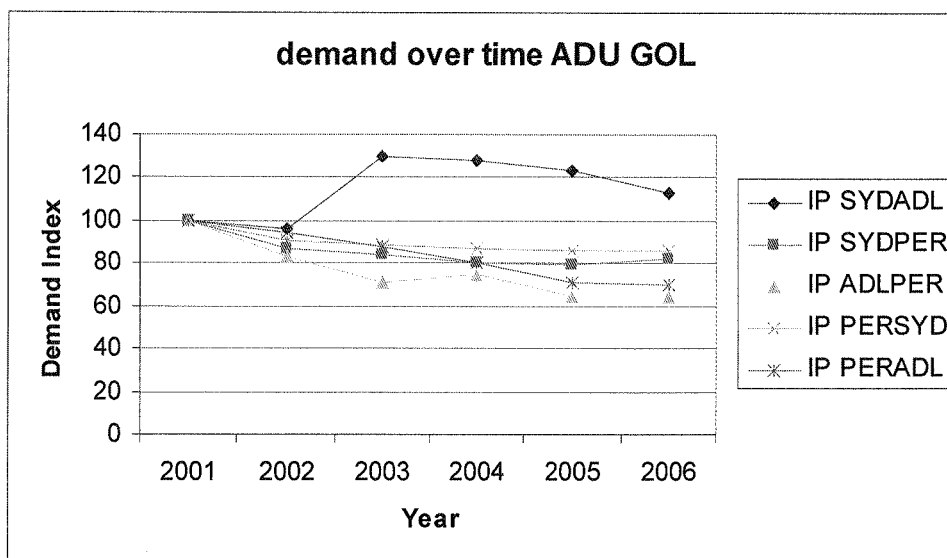
| | GOL | RKD |
|----------------|-------------|-------------|
| DRWADL | -1.9 | -2.8 |
| DRWASP | -3.4 | -3.2 |
| ADLDRW | -1.0 | -3.5 |
| ASPDRAW | 0.5 | -4.0 |
| Average | -1.6 | -3.4 |

3.2.2 Results from Indian Pacific

For the India Pacific, there is one time series for full fare tickets in the RKD class that has a positive price movement while the rest, based on our decision rule, are constant.

Figure 3-3 shows the GOL class demand over time, where all sectors have a constant price over time. The overall demand in gold class falls by an average of 2 percent per year over the five sectors. The Sydney-Adelaide route has seen an increase in demand despite the price remaining constant while the other sectors exhibit falling demand. Because all time series for the Indian Pacific for the GOL class are more or less constant in price and one class shows an increase in demand over time and the rest shows a decrease it is not possible to say much about price elasticities based on comparison between time series. This suggests that there were other factors than own price at play in affecting demand for these services and it might be instructive to look at competing prices for airfares on the various sectors during this period.

Figure 3-3 Demand for the Indian Pacific, full price tickets on GOL class



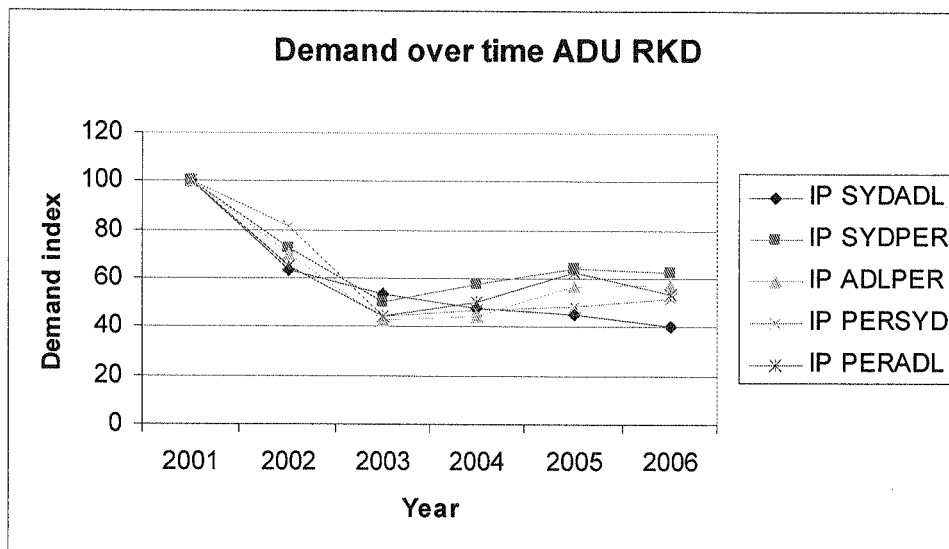
Note: Demand over time is shown as an index, where 2001=100. No data is available for Adelaide-Sydney.

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GSR data

The data for full price tickets in the RKD class is more revealing in terms of price sensitivities. It should be noted that the impact of the widespread introduction of discount airfares in 2002 can be clearly seen in the data. In this class prices in the Sydney to Adelaide sector have increased over time whereas other prices have remained constant. In particular there was a significant price rise of 22.5 per cent on the Sydney Adelaide route in 2003. Figure 3-4 shows the demand over time for the sectors on this line for full price tickets in the RKD class. It is evident that demand on the other four sectors stabilised or recovered whereas demand for the Sydney Adelaide route continued to decline. Between 2003 and 2004 demand for the other four services rose by 8.5 per cent and between 2003 and 2006 demand rose by 25.7 per cent. In contrast demand for the Sydney Adelaide route fell by 10.7 per cent between 2003 and 2004 and by 24.8 per cent between 2003 and 2006. If these figures are adjusted for the demand increases for the other routes (which we infer as the underlying non price sensitive demand for this service) this implies short run elasticity (between 2003 and 2004) of -0.85 and a longer run elasticity (between 2003 and 2006) of -2.2.

Figure 3-4 Demand for the Indian Pacific, full price tickets, RKD class



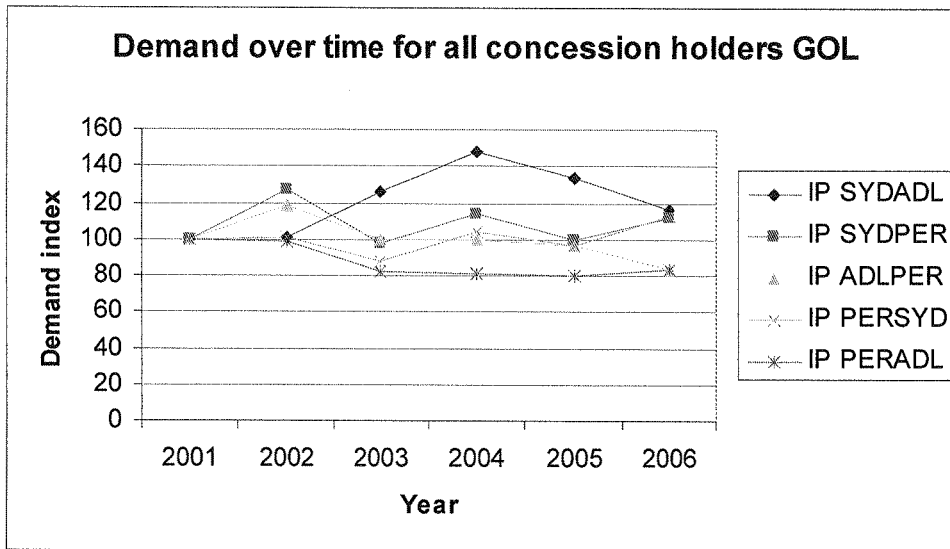
Note: Demand over time is shown as an index, where 2001=100

For the concession holders' demand, the picture is less clear. The demand over time for GOL class shows no unambiguous connection between price and demand. Figure 3-5 shows the demand over time. The only sector with a price increase is Sydney-Adelaide, which at the same time shows increasing demand.

Figure 3-5 Demand for the Indian Pacific for concession holders, GOL class

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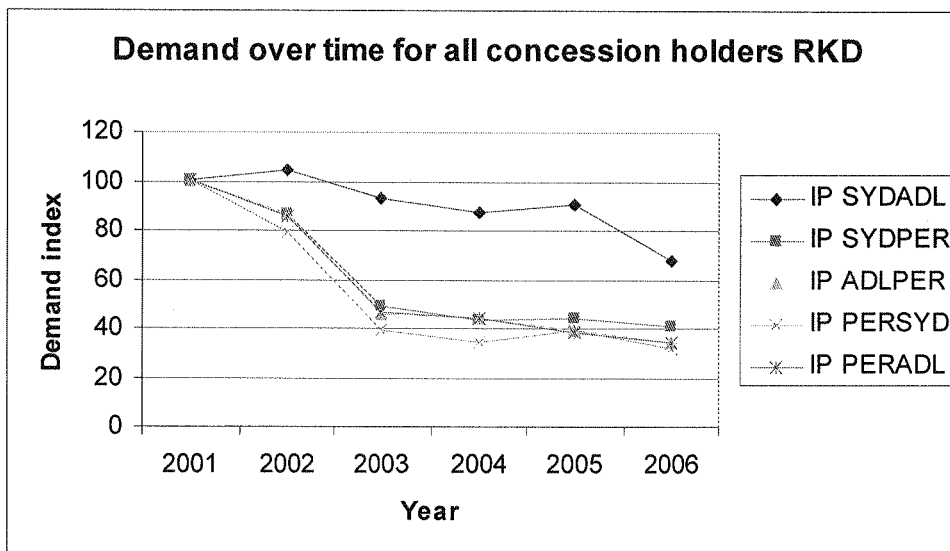
GSR data



Note: Demand over time is shown as an index, where 2001=100

A similar pattern is found for the RKD class, where again the Sydney-Adelaide sector is the only one that has experienced price increases over the last 5 years but is also the one that shows the smallest decline in demand as seen in Figure 3-6.

Figure 3-6 Demand over time for the Indian Pacific for concession holders, RKD class



Note: Demand over time is shown as an index, where 2001=100

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Section 5**Limitations**

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The methodology adopted and sources of information used by URS are outlined in this report. URS has made no independent verification of this information beyond the agreed scope of works and URS assumes no responsibility for any inaccuracies or omissions. No indications were found during our investigations that information contained in this report as provided to URS was false.

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