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Bass Strait Passenger Vehicle Equalisation Scheme

Monitoring Report 11
2006–07

Bureau of Infrastructure, Transport and Regional Economics

**Bass Strait Passenger Vehicle Equalisation Scheme:
Monitoring Report 11
2006–07**

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Regional Development and Local Government
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Foreword

This report presents the results of the Bureau of Infrastructure, Transport and Regional Economics' (BITRE) eleventh annual review of the Bass Strait Passenger Vehicle Equalisation Scheme. It covers the operation and impact of the Scheme up to (and including) 2006–07.

The 2002 Ministerial Directions (Appendix A) require BITRE to produce this annual monitoring report.

BITRE gratefully acknowledges the assistance provided by TT-Line, Tourism Tasmania, and the Tasmanian Assistance Services team at Centrelink, and the Infrastructure and Surface Transport Policy Division of the Department of Infrastructure, Transport, Regional Development and Local Government.

The study was undertaken by Tim Risbey and Mark Cregan.

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July 2008

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At a glance

- In 2006–07, the Australian Government spent \$28.34 million under the Bass Strait Passenger Vehicle Equalisation Scheme (the Scheme)—down 9.5 per cent on 2005–06. Vehicle rebates were unchanged in 2006–07. The one-way rebate remained at \$150 for a car, \$75 for motorbikes, and up to \$300 for larger vehicles.
- The Scheme is demand driven. In recent years total payments have declined due to falling sea passenger numbers, while the subsidy per passenger has increased. In 2006–07 the nominal rebate per TT-Line motor vehicle passenger increased 2.2 per cent due to a fall in average passenger numbers per vehicle.
- Sea passenger numbers decreased 9.2 per cent in 2006–07. Despite this, total passenger numbers across Bass Strait increased 5 per cent to 1.52 million due to higher air passenger numbers (87 per cent of all passengers travelled by air).
- BITRE's econometric modelling indicates that motor vehicle passenger numbers may have been increased by 22.6 per cent compared to traffic levels without the Scheme. However, pre-Scheme traffic trends indicate that up to 75 per cent of passengers may have travelled anyway as berth-only sea passengers.
- Total visitor numbers increased 1.7 per cent in 2006–07 due to increased air travel, however, the number travelling by sea fell 9.2 per cent.
- BITRE estimates that 3750 new leisure visitors travelled on the Melbourne–Devonport service due to the Scheme in 2006–07, spending \$8.7 million. This excludes spending by non-leisure visitors or benefits to Tasmanians who travelled by sea.
- Three operators provided ferry services in 2006–07. TT-Line—wholly owned by the Tasmanian Government—carried almost all sea passengers.
- In 2006–07, TT-Line carried a total 393 677 one-way passengers, 188 481 eligible vehicles and 340 273 one-way motor vehicle passengers—the latter is a decrease of 11.6 per cent over 2005–06, in part due to the cessation of the Sydney service.
- On 5 June 2006 the Tasmanian Government decided to cease the Sydney service and sell *Spirit of Tasmania III*. The final service departed on 27 August 2006.
- TT-Line increased fares twice in 2006–07. The cost of BITRE's peak season benchmark passenger and vehicle sea package at June 2007 was up 14.3 per cent on June 2006, to a level comparable in real terms to prices prior to the Scheme.
- TT-Line reported an underlying operating profit of \$4.2 million for 2006–07, following an operating loss of \$33.5 million for 2005–06. Operating revenues fell 2.2 per cent (reduced Sydney passengers and higher Melbourne fares), while operating costs fell 21.1 per cent (reduced Sydney and Melbourne sailings, and a \$3.285 million reduction in depreciation due to an increase in ships useful lives).
- The Tasmanian Government injected \$22.5 million into TT-Line in 2006–07 bringing funds injected to \$160.2 million over the last three years.
- The Scheme rebate declined to 18.2 per cent of TT-Line operating revenue in 2006–07—the fourth successive decline.

Executive Summary

Bass Strait Passenger Vehicle Equalisation Scheme

Passengers travelling with a vehicle across Bass Strait can receive a rebate funded by the Australian Government under the Bass Strait Passenger Vehicle Equalisation Scheme (the Scheme). The aim of the Scheme is 'to reduce the cost of sea travel across Bass Strait for passengers' accompanying an eligible vehicle.

A rebate is applied against the fare charged by a ferry operator to transport an accompanied passenger vehicle across Bass Strait. Vehicle rebates were unchanged in 2006–07. The one-way rebate was up to \$150 for a standard car, \$75 for motorbikes, \$21 for bicycles and up to \$300 for larger eligible vehicles.

Payments under the Scheme

In 2006–07, the Australian Government spent \$28.34 million under the Scheme—a decrease of 9.5 per cent over 2005–06.

The Scheme is demand driven. Total funding therefore varies with the number—and mix—of eligible vehicles carried by sea across Bass Strait.¹

In recent years, total rebate payments have declined due to falling sea passenger numbers, while the subsidy per passenger has increased in nominal terms. In 2006–07, the average nominal rebate for each TT-Line motor vehicle passenger increased 2.2 per cent to \$83.20 due to a decline in the average number of people per eligible vehicle.

Operation of the Scheme

Passengers must generally accompany their vehicles to be eligible for a rebate. Eligible passenger vehicles include motor cars, buses, motorcycles, motor homes, eligible passenger vehicles towing a caravan, and push bikes.

Over 99 per cent went to eligible passengers with an accompanying vehicle travelling on TT-Line services. In the case of TT-Line, passengers pay the vehicle fare net of the rebate and the rebate is paid direct to the operator.

Total reimbursements to TT-Line decreased 9.6 per cent compared with 2005–06. This was due to declining motor vehicle passenger numbers. In 2006–07, the number of

1. Scheme funding for services on the Sydney–Devonport route has been capped at \$8 million from 2004–2005 (Department of Transport and Regional Services 2005).

one-way trips by TT-Line motor vehicle passengers on the Melbourne and remaining Sydney services fell by 11.6 per cent (44 701) to 340 273 compared with 2005–06.²

Sea and air traffic

An estimated 1.52 million adult passengers travelled across Bass Strait in 2006–07—an increase of approximately 74 000 (5 per cent) compared with 2005–06. The majority of passengers (87 per cent) travelled by air. Air passenger numbers between the mainland and Tasmania continued to increase, up 3.1 per cent on the previous year.

The number of adult passengers travelling by sea declined 9.2 per cent (19 200) to an estimated 188 700. Adult visitor numbers travelling by sea fell 9.2 per cent (12 900) and adult Tasmanian resident numbers travelling by sea fell 9.3 per cent (6300).

An increase in air travel saw the number of visitors to Tasmania increase 1.7 per cent to an estimated 827 100 in 2006–07. The decline in adult sea visitor numbers was offset by the increase in adult air visitor numbers. As a consequence, the proportion of adult visitors choosing to travel to Tasmania by sea continued to decline to 15.5 per cent (down from 17.3 per cent in 2005–06).

However, visitors travelling by sea are more likely to travel for leisure, with 72 per cent of sea visitors travelling for holiday/leisure compared with 42 per cent of air visitors. Sea visitors also stay longer in Tasmania—an average of fifteen nights compared with eight nights for air visitors.

In 2006–07, the estimated number of visitors travelling for holiday or leisure rose slightly for air and dropped for sea, resulting in an overall decline in tourist numbers to Tasmania compared with 2005–06 (BTRE 2007; and Table 2.1).

Bass Strait sea services

Three operators provided sea services in 2006–07—TT-Line, Searoad Shipping³ and Southern Shipping. TT-Line carried almost all sea passengers and their accompanying eligible vehicles. Southern Shipping allows passengers to travel with their eligible vehicle and Searoad Shipping carried unaccompanied eligible motor vehicles.

TT-Line carried a total 393 677 one-way passengers and 188 481 eligible vehicles in 2006–07. The number of one-way motor vehicle passengers carried by TT-Line was 340 273—a decrease of 44 701 motor vehicle passengers (11.6 per cent) over 2005–06.

The *Spirit of Tasmania III* ceased Sydney–Devonport operations in August 2006, contributing to the decline in total TT-Line voyages for 2006–07. Traffic per voyage increased for both the Melbourne service and the former Sydney service in 2006–07.

2. Berth-only passenger numbers also decreased by 2170 (3.9 per cent).

3. Formerly Patrick Shipping. The Chas Kelly Transport Group acquired Patrick Bass Strait Shipping from the Toll Group on 1 April 2008. The new operation is known as Searoad Shipping.

Changes in sea and air fares

TT-Line increased Melbourne–Devonport passenger fares twice during 2006–07.

From 1 July 2006, a \$15 fuel surcharge increase was added for all one-way passenger fares and vehicle fares were increased by \$10 to \$69 each way. However, discounted passenger fares were introduced for the off-peak period and daylight voyages.

On 16 April 2007 an increase of approximately 4.7 per cent was applied to all passenger fares, and vehicle fares increased by \$10 to \$79 each way for all seasons. The prices of some daylight and business passenger fares fell.

Sea passengers pay different passenger and vehicle fares, depending on the route, season, style of accommodation and type of passenger vehicle.

BITRE has constructed a benchmark sea fare to better understand changes in sea fares over time. This benchmark for the Melbourne–Devonport route is a TT-Line sea travel package for two adults with an inside three to four berth cabin, a motor car and two meals purchased on board.

The passenger component of the benchmark fare for an adult in the peak season increased by 11.2 per cent (\$27) to \$242 in 2006–07. Net vehicle fares—including a rebate of \$150 for an eligible standard vehicle—increased 33.9 per cent (\$20) to \$79.

The cost of BITRE's peak season sea package (with the rebate) as at June 2007 was up 14.3 per cent on June 2006. The cost of this peak season package at 30 June 2007 was comparable in real terms to the cost as at 30 June 1996—prior to the start of the Scheme. This should be treated with caution given service improvements, that it is for the peak season only, and that passengers have a choice of accommodation.

BITRE's discount air fares index remained relatively stable between June 2006 and June 2007, after an increase of 26 per cent in the previous year.

In order to put the Scheme rebate into context, BITRE has constructed broadly comparable sea and air transport packages. While this comparison needs to be treated with caution given the variability of discount air fares, it indicates that in 2006–07:

- Sea travel was likely to have been a better option for those planning a longer (fifteen night) stay for all periods.
- The fly-drive scenario with a heavily discounted airfare—subject to availability—may have been the best deal in off-peak and shoulder seasons for those planning a shorter (eight night) stay.

Impact of the Scheme on sea traffic

The Scheme rebate substantially reduces the cost of freighting an accompanying vehicle for eligible passengers. In 2006–07, the \$150 rebate on a standard car represented 20.2 per cent of BITRE's benchmark one-way Melbourne–Devonport sea fare for a couple travelling with an eligible passenger car (22.4 per cent in 2005–06).

The total number of TT-Line motor vehicle sea passengers has declined over the last three years. These declines follow a substantial⁴ increase in motor vehicle passenger numbers in 2002–03 after large increases in TT-Line capacity and frequency, with modest growth in motor vehicle sea passenger numbers recorded in 2003–04.

BITRE has conducted econometric modelling of the Melbourne–Devonport sea market to estimate the impact of the Scheme on motor vehicle passenger numbers. The model does not include Sydney–Devonport and its results should be interpreted with care. The modelling of the sea market indicates that the Scheme increased one-way motor vehicle passenger movements on the Melbourne–Devonport ferry service by an estimated 61 700 in 2006–07. This was a 22.6 per cent increase on the situation without the rebate—a proportion that has fallen since the introduction of the Scheme.

Traffic trends since 1996 indicate that the Scheme has encouraged sea passengers to take their own motor vehicle.

Assessing the impact on tourism

The Scheme increased the number of one-way motor vehicle sea passengers on the Melbourne–Devonport route including some that would otherwise have travelled as berth-only sea passengers or by air.⁵ Berth-only sea passenger numbers have declined significantly since the introduction of the Scheme.

Trend analysis of the five years prior to the Scheme indicates a small trend growth in the number of berth-only sea passengers—extrapolating this trend indicates that the Scheme may have reduced berth-only one-way movements by approximately 46 500⁶ in 2006–07. That is, 75 per cent of the 61 700 additional motor vehicle sea passengers may have travelled anyway as berth-only sea passengers. This indicates the Scheme may have resulted in a net increase of approximately 15 000 one-way sea passenger movements—equivalent to 7500 return trips between Melbourne and Devonport.

Tourism Tasmania visitor survey data indicates that approximately half of all sea passengers are visitors travelling for recreational purposes. Consequently, BITRE estimates that 3750 new leisure visitors travelled by sea from Melbourne in 2006–07.

If these new visitors spent an average of \$2332 per person⁷, then the net new tourism spending would have been \$8.7 million in 2006–07. This estimate of spending by these new visitors is indicative only and is for visitors travelling for leisure purposes between Melbourne and Devonport—it does not include additional spending by visitors travelling for business and ‘other’ purposes, visitors using the Sydney–Devonport service, or benefits to Tasmanian residents travelling by sea who received the rebate.

4. The substantial increase in 2002–03 was due to TT-Line capacity and frequency increases, coupled with changes to Scheme eligibility and increases in the off-peak and shoulder rebates (BTRE 2006b).
5. No adjustment has been made for reduced air travellers as a result of lower sea fares due to the rebate. This is because the econometric modelling of the air market in 2004–05 indicates sea fares are not a significant factor explaining variation in the number of air passengers.
6. This estimate of approximately 46 500 one-way passenger movements is the difference between the total motor vehicle passenger econometric estimate and the trend analysis of berth-only passengers that became motor vehicle passengers due to the Scheme.
7. The average spending by sea passengers for all journey purposes was \$2332 per trip in 2006–07 (Tourism Tasmania 2007).

Financial position of the operators

TT-Line reported a net profit of \$10.6 million in 2006–07. The underlying operating profit was \$4.2 million. This compares to an underlying operating loss for 2005–06 of \$33.5 million. TT-Line attributed this turnaround to the cessation of the Sydney service and return of the Melbourne service to an operating profit. The final Sydney–Devonport service departed Sydney on 27 August 2006 (TT-Line 2006c) and the *Spirit of Tasmania III* was sold to Corsica Ferries for \$111.475 million, recouping all acquisition costs (TT-Line 2006b).

TT-Line operating revenues were \$155.34 million in 2006–07, down \$3.5 million (2.2 per cent). Operating expenses were \$151.8 million, down \$40.6 million (21.1 per cent) compared to 2005–06 values adjusted for ship revaluations. Significant changes in operating expenses in 2006–07 included:

- hotel services—down 23.0 per cent (–\$7.941 million).
- ship depreciation—down 38 per cent (–\$5.452 million).
- finance costs (interest on loans)—down 44 per cent (–\$5.436 million).

Average voyage operating expenses in 2006–07 decreased 19.9 per cent, reflecting the cessation of Sydney services. TT-Line's average revenue per voyage rose for the second consecutive year and the average cost per passenger fell. Scheme rebates fell to 18.2 per cent of TT-Line operating revenue in 2006–07, the fourth annual decline. The Tasmanian Government injected an additional⁸ \$22.5 million into TT-Line in 2006–07 to make debt repayments/reductions (TT-Line 2007, p. 16), bringing the total funds injected to \$160.2 million over the last three years.

8. In addition to the \$75.2 million capital injection in 2004–2005 and \$62.5 million in 2005–06.

Chapter 1 Introduction

History of the Scheme

In August 1996, the Commonwealth Minister for Transport and Regional Development announced the introduction of the Bass Strait Passenger Vehicle Equalisation Scheme (the Scheme). The Minister noted that the resulting fare reductions would help to increase the demand for travel across Bass Strait, with direct benefits to the tourist industry and potential growth in jobs, investment and population for Tasmania (Sharp 1996, p. 1).

The Scheme applied to travel from 1 September 1996. It provided a rebate against the fare charged by a sea ferry operator to transport an accompanied passenger vehicle across Bass Strait.

On 1 March 2001, the Scheme was extended to cover the carriage of vehicles between King Island and mainland Australia. As sea passenger services were not provided on the King Island route, the rebate was made available for passenger vehicles carried by sea where the driver travelled by commercial air service on or about the same day.

The Scheme operates under a set of Ministerial Directions. In 2006–07, the Scheme was administered in accordance with Directions issued in September 2002 (Department of Transport and Regional Services 2002). Significant changes to the Scheme in the September 2002 Ministerial Directions included replacing the previous seasonal structure for rebates by a constant rebate throughout the year, and extending the Scheme to include additional vehicle types.

Administration of the Scheme

The Ministerial Directions are administered by Tasmanian Assistance Services—a business unit within Centrelink. Policy direction and funding for the Scheme during 2006–07 was provided by the Infrastructure and Surface Transport Policy Division of the Department of Infrastructure, Transport, Regional Development and Local Government (formerly the Maritime and Land Transport Division of the Department of Transport and Regional Services).

Requirement for monitoring

The Ministerial Directions require the Bureau of Infrastructure, Transport and Regional Economics—previously the Bureau of Transport and Regional Economics—to monitor the effectiveness of the Scheme on an annual basis (see Appendix A). They state that BITRE should have specific regard to movements in a service operator's revenue and

annual operating costs, and to the annual number of eligible passengers, eligible passenger vehicles and passengers travelling under related bookings.

BITRE has prepared ten previous reports on the Scheme, the most recent covering 2005–06. It has generally concluded that the fare reductions provided by the Scheme have resulted in increased sea travel across Bass Strait.

Outline of the report

This report presents the results of the eleventh annual review of the Scheme, covering 2006–07. It incorporates data provided by TT-Line (from its management database and annual reports), Tasmanian Assistance Services and Tourism Tasmania.

Chapter 2 covers changes in Bass Strait sea and air services and traffic levels.

Chapter 3 describes the operation of the Scheme in terms of its coverage, payment of the rebate, claims for reimbursement and levels of payments.

Chapter 4 covers the changes in air and sea fares and compares various travel package scenarios.

The impact of the Scheme on traffic levels is examined in Chapter 5, which includes the results of econometric modelling undertaken by BITRE.

Changes in TT-Line's revenue and expenses are considered in Chapter 6.

Appendices present the monitoring provisions in the 2002 Ministerial Directions and information on the econometric model.

Summary

- Passengers accompanying an eligible vehicle across Bass Strait can receive a rebate funded by the Australian Government.
- The aim of Bass Strait Passenger Vehicle Equalisation Scheme is 'to alleviate the cost of seagoing travel for passengers accompanying an eligible vehicle'.
- The rebate is applied against the fare charged by a ferry operator to transport an accompanied eligible passenger vehicle across Bass Strait.

Chapter 2 Bass Strait services and traffic

An estimated 1.52 million adult passengers travelled by air and sea across Bass Strait in 2006–07 (Table 2.1). This was an increase of 5 per cent (approximately 74 000) on 2005–06. Over 87 per cent of adult air passengers travelled by air (up from 85 per cent in 2005–06).

The number of adult passengers travelling by sea fell by 9.2 per cent (19 200) to an estimated 188 700. Visitors choosing sea travel declined by 9.2 per cent (12 900) and Tasmanian residents travelling by sea declined 9.3 per cent (6200).

An increase in air travel saw the number of visitors to Tasmania increase by 1.7 per cent to an estimated 827 100 in 2006–07. The decline in adult sea visitor numbers was offset by a 4.1 per cent increase in adult air visitor numbers.

Consequently, the proportion of adult visitors travelling to Tasmania by sea continued to decline to 15.5 per cent (17.3 per cent in 2005–06).

Table 2.1 Estimated adult return passengers travelling between Tasmania and the mainland by purpose, 2006–07^a

| <i>Purpose of travel</i> | <i>Air</i> | <i>Sea</i> <i>(thousands)</i> | <i>Total</i> |
|----------------------------|------------|----------------------------------|--------------|
| Visitors to Tasmania | | | |
| Holiday/leisure | 291.1 | 92.3 | 383.4 |
| Visiting friends/relatives | 206.1 | 15.8 | 221.9 |
| Business | 122.5 | 13.6 | 136.1 |
| Conference | 28.6 | 0.9 | 29.5 |
| 'Other'/not specified | 50.9 | 5.2 | 56.1 |
| Total visitors | 699.3 | 127.8 | 827.1 |
| Tasmanian residents | | | |
| Holiday/leisure | 198.3 | 19.1 | 217.4 |
| Visiting friends/relatives | 208.8 | 16.8 | 225.6 |
| Business | 147.4 | 8.4 | 155.8 |
| Conference | 17.8 | 0.3 | 18.1 |
| 'Other'/not specified | 48.1 | 3.4 | 51.5 |
| Total Tasmanians | 628.0 | 60.9 | 688.9 |
| Total passengers | 1 327.2 | 188.7 | 1 515.9 |

a. Excludes minors and day trippers. Data collected by survey and subject to sampling error.

Source: Tourism Tasmania Tasmanian Visitor Survey—personal communications (2007).

In 2006–07, the estimated number of visitors to Tasmania travelling for holiday or leisure purposes rose for air and dropped for sea, resulting in an overall decline in tourist numbers to Tasmania compared with 2005–06 (BTRE 2007b; Table 2.1).

More visitors travelled by air than sea, but a higher proportion of sea visitors travelled for holiday/leisure purposes (72 per cent) than air (42 per cent) (Table 2.1).

Sea visitors also stay longer in Tasmania—an average of fifteen nights compared with eight nights for air visitors.

The estimated number of adult Tasmanian residents—excluding day trippers—travelling to the mainland by air and sea increased 9.5 per cent to 688 900 (Table 2.1). 32 per cent of residents—by both sea and air—travelled for holiday or leisure reasons.

The proportion of adult Tasmanians choosing to travel by sea has declined over the last three years from 15.3 per cent in 2003–04 to 8.8 per cent in 2006–07.

Sea services and passengers

TT-Line, Searoad Shipping⁹ and Southern Shipping provided Bass Strait sea services in 2006–07.

TT-Line provided sea passenger services and carried 393 677 one-way passengers and 188 481 eligible vehicles in 2006–07. The number of one-way motor vehicle passengers carried by TT-Line declined by 44 701 to 340 273—down 11.6 per cent over 2005–06. Berth-only passenger numbers declined 2170 (3.9 per cent).

Spirit of Tasmania I and *Spirit of Tasmania II* operated the Melbourne–Devonport route.¹⁰ Each ship can carry up to 1400 passengers, with a maximum passenger capacity of 1040 passengers on night crossings. In 2006–07 the vehicle capacity of each vessel was increased by 60 vehicles to 660 per sailing (TT-Line 2007).

The *Spirit of Tasmania III* operated 13 voyages on the Sydney–Devonport route in 2006–07 (204 in 2005–06), ceasing operations during August 2006.¹¹ The Sydney–Devonport service carried 5705 one-way passengers, including 4850 motor vehicle passengers, and 3116 eligible vehicles in the year to 30 June 2007.

Searoad Shipping operated a freight only service across Bass Strait in 2006–07 using the *Searoad Mersey*. The *Searoad Mersey* carried 201 eligible motor vehicles in 2006–07, compared with 188 481 carried by TT-Line (Table 2.2).

9. Formerly Patrick Shipping. The Chas Kelly Transport Group acquired Patrick Bass Strait Shipping from the Toll Group on 1 April 2008. The new operation is known as Searoad Shipping.

10. *Spirit of Tasmania I* and *II* have operated the Melbourne–Devonport route since 1 September 2002 when they replaced the *Spirit of Tasmania*. These two new vessels increased the passenger capacity by 212 per cent and the available motor vehicle capacity by 185 per cent (BTRE 2004).

11. The *Spirit of Tasmania III* provided a different mix of accommodation to *Spirit of Tasmania I* and *II*, including hostel berths, and carried up to 1400 passengers and 410 cars (Sydney Port Corporation 2004). Each trip was approximately 20 hours, twice the duration of the Melbourne–Devonport trip (TT-Line undated).

Southern Shipping operated a service across Bass Strait in 2006–07 using the *Matthew Flinders*, carrying 11 eligible motor vehicles. Southern allows passengers to travel with their cars as they are not eligible for assistance if they travel by air.

This report focuses on TT-Line services given their importance.

Table 2.2 Total eligible vehicles carried by operator 2006–07

| Operator | Eligible vehicles carried | Share of total (per cent) |
|-------------------|---------------------------|---------------------------|
| TT-Line | 188 481 | 99.9 |
| Searoad Shipping | 201 | 0.1 |
| Southern Shipping | 11 | 0.0 |
| All operators | 188 693 | 100.0 |

Source: Tasmanian Assistance Services—personal communications 2007.

Between 1995–96 and 2006–07 the annual number of TT-Line voyages has increased from 295 to 805 (Table 2.3). In addition, the average vessel size—hence available capacity—increased substantially with the introduction of the *Spirit of Tasmania I and II* in September 2002. TT-Line increased the capacity of its ships by an additional 60 vehicles per sailing in 2006–07 (TT-Line 2007).

The number of voyages reduced significantly in 2006–07. Most of this is accounted for by the ceasing of the Sydney service, with *Spirit of Tasmania III* voyages representing the final two months of this service (Table 2.3). Voyages by the *Spirit of Tasmania I/II* also decreased by 7 (0.8 per cent), with TT-Line cancelling Sunday sailings during the off-peak period from May to August (TT-Line 2007).

Table 2.3 TT-Line one-way voyages, 1995–96 to 2006–07

| Voyages | 95–96 | 96–97 | 97–98 | 98–99 | 99–00 | 00–01 | 01–02 | 02–03 ^a | 03–04 | 04–05 | 05–06 | 06–07 |
|--------------------------------|----------|-------|-------|-------|-------|-------|-------|--------------------|------------------|------------------|-------|-------|
| | (number) | | | | | | | | | | | |
| <i>Spirit of Tasmania</i> | 295 | 313 | 323 | 334 | 347 | 379 | 367 | na | na | na | na | na |
| <i>Devil Cat</i> | na | na | 117 | 171 | 108 | 99 | 118 | na | na | na | na | na |
| <i>Spirit of Tasmania I/II</i> | na | na | na | na | na | na | na | 846 | 894 | 832 | 812 | 805 |
| <i>Spirit of Tasmania III</i> | na | na | na | na | na | na | na | na | 135 ^b | 220 ^c | 204 | 13 |
| Total voyages | 295 | 313 | 440 | 505 | 455 | 478 | 485 | 846 | 1 029 | 1 052 | 1 016 | 818 |

na not applicable

a. Voyages made by *Spirit of Tasmania* in 2002–03 before its replacement in September 2002 are included in the number of voyages made by *Spirit of Tasmania I/II*.

b. *Spirit of Tasmania III* began operating the Sydney–Devonport route on 13 January 2004. Voyage total for 2003–04 therefore reflects approximately six months data.

c. *Spirit of Tasmania III* operated an extra Melbourne–Devonport service on 15 December 2004 and replaced its sister ships during their biannual dry-dockings from 17 July to 7 August.

Source: TT-Line Annual Report (2007) and previous annual reports.

While total TT-Line voyages decreased, traffic per voyage increased for both the Melbourne service and the former Sydney service in 2006–07 (Table 2.4).

Table 2.4 TT-Line average traffic per voyage by service, 1995–96 to 2006–07

| Year | Passengers ^a per voyage | | Vehicles per voyage | |
|----------------------|------------------------------------|--------|---------------------|--------|
| | Melbourne | Sydney | Melbourne | Sydney |
| 1995–96 | 732 | na | 214 | na |
| 1996–97 | 828 | na | 258 | na |
| 1997–98 | 714 | na | 253 | na |
| 1998–99 | 680 | na | 246 | na |
| 1999–00 | 710 | na | 264 | na |
| 2000–01 | 692 | na | 266 | na |
| 2001–02 | 718 | na | 278 | na |
| 2002–03 | 596 | na | 248 | na |
| 2003–04 ^b | 528 | 249 | 238 | 116 |
| 2004–05 | 472 | 271 | 226 | 131 |
| 2005–06 | 443 | 396 | 212 | 188 |
| 2006–07 ^c | 482 | 439 | 230 | 240 |

na not applicable.

a. Includes passengers with an accompanying motor vehicle and berth-only passengers.

b. The eligible vehicles per voyage figures for 2003–04 are derived by vehicles per claim period which may not correspond exactly to TT-Line figures.

c. The Sydney–Devonport route represents two months of traffic data.

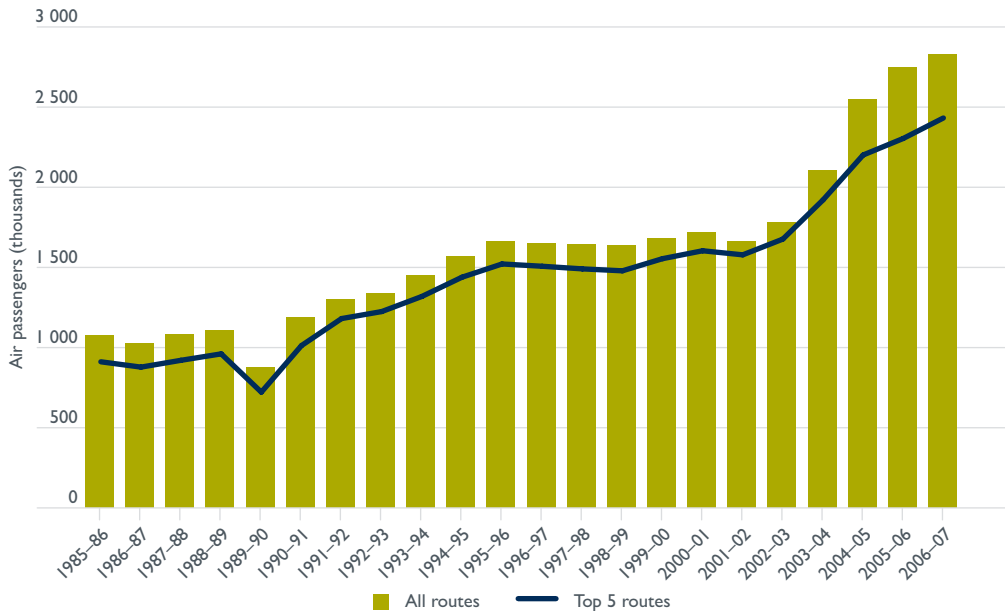
Source: TT-Line Annual Report (2007) and previous annual reports.

Air services and passengers

One-way trips by domestic air passengers to and from Tasmania increased to 2.83 million in 2006–07, an increase of 84 700 (3.1 per cent). The top five routes accounted for 2.4 million one-way trips (86 per cent) of all air passengers on Tasmanian interstate routes (Figure 2.1). The entry of the low cost carriers¹² and introduction of new routes has substantially increased the total number of air passengers and reduced the share of the top five routes between Tasmania and the mainland.

12. Virgin Blue began operating between Melbourne and Launceston on the 8 November 2001 (Virgin Blue, 2001). Jetstar—a low fares airline wholly owned by Qantas—commenced operations to Tasmania on 25 May 2004 (Jetstar, 2004). New routes between Adelaide and Hobart, and Brisbane and Launceston began in November 2004 and December 2004 respectively. Tiger Airways began services between Tasmania and the Australian mainland during November 2007.

Figure 2.1 Air passengers between Tasmania and the mainland—one-way trips, 1985–86 to 2006–07



Note: Passenger numbers are one-way trips by revenue passengers—those passengers paying any level of fare on scheduled domestic regular public transport services. Top five routes are Hobart–Melbourne, Launceston–Melbourne, Hobart–Sydney, Devonport–Melbourne, and Launceston–Sydney.

Source: BITRE domestic air passenger data.

Summary

- 1.52 million adult passengers travelled across Bass Strait in 2006–07—an increase of approximately 74 000 (5 per cent) on 2005–06.
- The majority of passengers—over 87 per cent—travelled by air in 2006–07. The number of domestic air passengers to/from Tasmania increased 3.1 per cent.
- An estimated 188 700 adult passengers travelled by sea, a decrease of 19 200 (9.2 per cent). The number of adult visitors travelling by sea fell 12 900 and the number of adult Tasmanian residents travelling by sea fell by 6300 (9.3 per cent).
- An increase in air travel saw the number of visitors to Tasmania increase by 1.7 per cent to an estimated 827 100 in 2006–07. The decline in adult sea visitor numbers was offset by an increase in adult air visitor numbers.
- The proportion of adult visitors choosing to travel to Tasmania by sea continued to decline to 15.5 per cent (17.3 per cent in 2005–06).
- Nearly half of all visitors to Tasmania travelled for holiday/leisure purposes—this proportion is higher for sea (72 per cent) than air (42 per cent).
- Three operators provided sea services in 2006–07. TT-Line carried almost all sea passengers and all accompanying eligible vehicles. Searoad Shipping carried unaccompanied eligible motor vehicles. Southern Shipping allows passengers to travel with their eligible vehicle.

- TT-Line carried a total 393 677 one-way passengers and 188 481 eligible vehicles in 2006–07. The number of one-way motor vehicle passengers carried by TT-Line was 340 273—a decrease of 11.6 per cent over 2005–06.
- *Spirit of Tasmania III* ceased Sydney–Devonport operations in August 2006.
- While total TT-Line voyages decreased, per-voyage traffic increased in 2006–07 for both the Melbourne service and the former Sydney service.

Chapter 3 Operation of the Scheme in 2006–07

The Scheme covers passenger vehicles with an accompanying driver. Eligible passenger vehicles include motor cars, buses, motorcycles and—from 1 September 2002—motor homes, eligible passenger vehicles towing a caravan, and push bikes.

In order to be eligible for the rebate, vehicles must be primarily designed to carry passengers on public roads or be deemed to be motor homes or campervans. Vehicles designed to carry cargo are not eligible for the rebate and are carried as freight.

The Scheme applies to any service operator providing passenger and vehicle services between Tasmania and mainland Australia on an eligible route, or carrying vehicles between King Island and mainland Australia.

Scheme rebates

Vehicle rebates were unchanged in 2006–07. Table 3.1 summarises the one-way rebates for eligible vehicles in 2006–07. These rebates reflect the 1 September 2002 changes to the Ministerial Directions that:

- raised the rebate in the off-peak and shoulder periods to the peak season rebate
- extended the Scheme to other vehicle types.

TT-Line continues to apply a seasonal fare structure (Chapter 4) and this change to a constant rebate reduced the aggregate sea fare for passengers with an eligible accompanying vehicle in the shoulder and off-peak periods. Rebates on the King Island route are constant throughout the year.

Table 3.1 One-way rebates for eligible vehicles on the main Bass Strait and King Island routes, 1 July 2006 to 30 June 2007

| <i>Eligible vehicle class</i> | <i>Rebate (\$)</i> |
|---|--------------------|
| Motor car or bus | Up to 150 |
| Motor home | Up to 300 |
| Eligible passenger vehicle towing a caravan | Up to 300 |
| Motorcycle | Up to 75 |
| Bicycle | 21 |

Notes: The round-trip rebate is exactly double the one-way trip rebate. Prior to 1 September 2002 an off-peak rebate applied from 1 July to 31 August and 27 April to 30 June, and a shoulder rebate applied from 1 September to 5 December and from 26 January to 26 April.

Sources: Department of Transport and Regional Services (2002, pp.10–11). TT-Line—personal communications 2007.

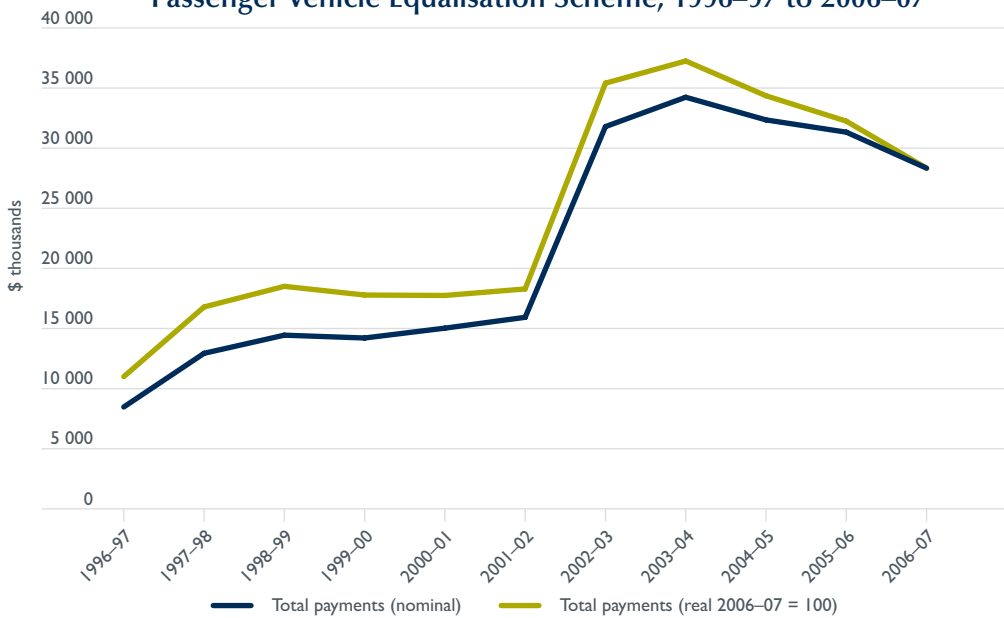
Reimbursements and payments under the Scheme

The Scheme is demand driven. Total funding therefore varies with the number and mix of eligible vehicles carried by sea across Bass Strait.¹³

In 2006–07, the Australian Government spent \$28.34 million under the Scheme—a decrease of 9.5 per cent over 2005–06. Over 99 per cent of total spending under the Scheme—\$28.30 million (down 9.6 per cent)—went to eligible passengers with an accompanying vehicle travelling on TT-Line services. TT-Line motor vehicle passenger one-way trips fell by 44 701 (down 11.6 per cent).

Reimbursements almost doubled in 2002–03 due to the combined effect of the increase in capacity with the introduction of *Spirit of Tasmania I* and *II* and the 1 September 2002 changes to the Ministerial Directions (Table 3.2 and Figure 3.1).

Figure 3.1 Total ‘actual’ rebate reimbursements under the Bass Strait Passenger Vehicle Equalisation Scheme, 1996–97 to 2006–07



Note: ‘Actual’ refers to the eligible vehicles actually shipped and disregards advanced payment numbers for scheduled bookings.

Sources: Tasmanian Assistance Services—personal communications October 2007, and earlier.

The number of one-way TT-Line motor vehicle passengers in 2006–07 decreased by 44 701 (11.6 per cent) and reimbursements to TT-Line declined 9.5 per cent (Table 3.2). The reduction in TT-Line’s total rebate payments for 2006–07 reflects the fall in the number of eligible vehicles. There were no changes to Scheme structure in 2006–07 and the vehicle rebates were unchanged (Table 3.1).

While total payments declined again in 2006–07, the average nominal rebate for each TT-Line motor vehicle passenger increased by 2.2 per cent to \$83.20 (Table 3.2) due to a decline in average number of people per eligible vehicle to 1.8 (previously 1.9).

13. Scheme funding for services on the Sydney–Devonport route has been capped at \$8 million from 2004–2005 (Department of Transport and Regional Services 2005).

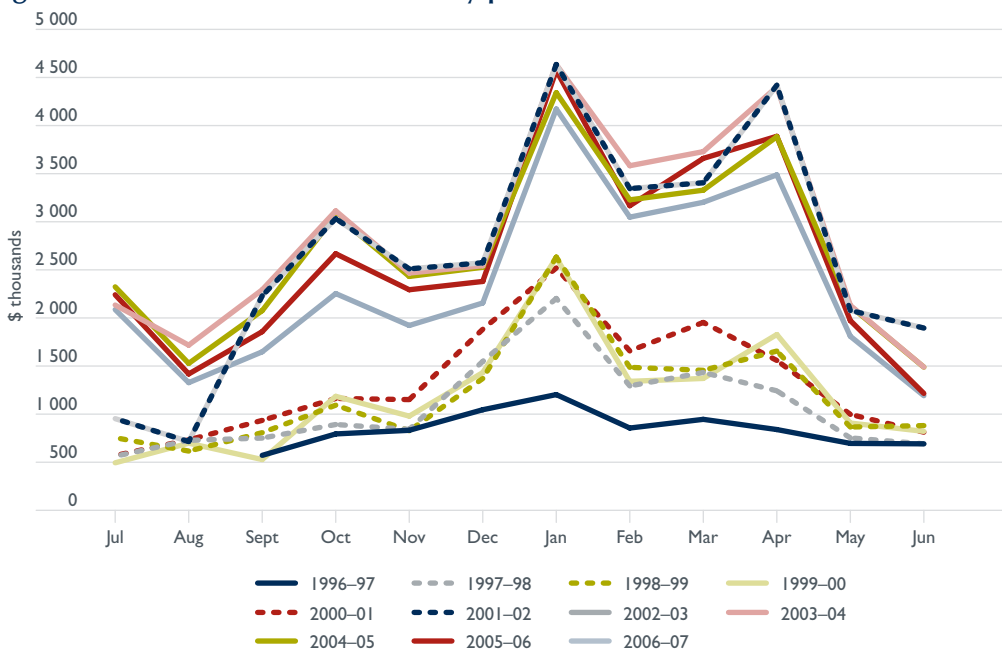
Table 3.2 TT-Line’s average reimbursement per motor vehicle passenger 1996–97 to 2006–07

| | Reimbursements paid to TT-Line (\$) | | Motor vehicle passengers (one-way trips) | Average reimbursement per motor vehicle passenger (\$) | |
|---------|-------------------------------------|-------------------|--|--|-------------------|
| | Nominal | Real ^a | | Nominal | Real ^a |
| 1996–97 | 8 474 915 | 10 997 484 | 153 045 | 55.4 | 71.9 |
| 1997–98 | 12 938 565 | 16 793 235 | 231 098 | 56.0 | 72.7 |
| 1998–99 | 14 446 755 | 18 508 330 | 261 487 | 55.2 | 70.8 |
| 1999–00 | 14 211 445 | 17 783 534 | 248 745 | 57.1 | 71.5 |
| 2000–01 | 15 030 670 | 17 748 529 | 259 438 | 57.9 | 68.4 |
| 2001–02 | 15 932 170 | 18 290 647 | 272 922 | 58.4 | 67.0 |
| 2002–03 | 31 793 065 | 35 405 656 | 432 498 | 73.5 | 81.9 |
| 2003–04 | 34 235 612 | 37 248 680 | 438 841 | 78.0 | 84.9 |
| 2004–05 | 32 349 808 | 34 358 600 | 395 928 | 81.7 | 86.8 |
| 2005–06 | 31 331 361 | 32 245 580 | 384 974 | 81.4 | 83.8 |
| 2006–07 | 28 304 136 | 28 304 136 | 340 273 | 83.2 | 83.2 |

a. Real 2006–07 dollars.

Sources: Tasmanian Assistance Services—personal communications 2007 and earlier; TT-Line—personal communications 2007 and earlier.

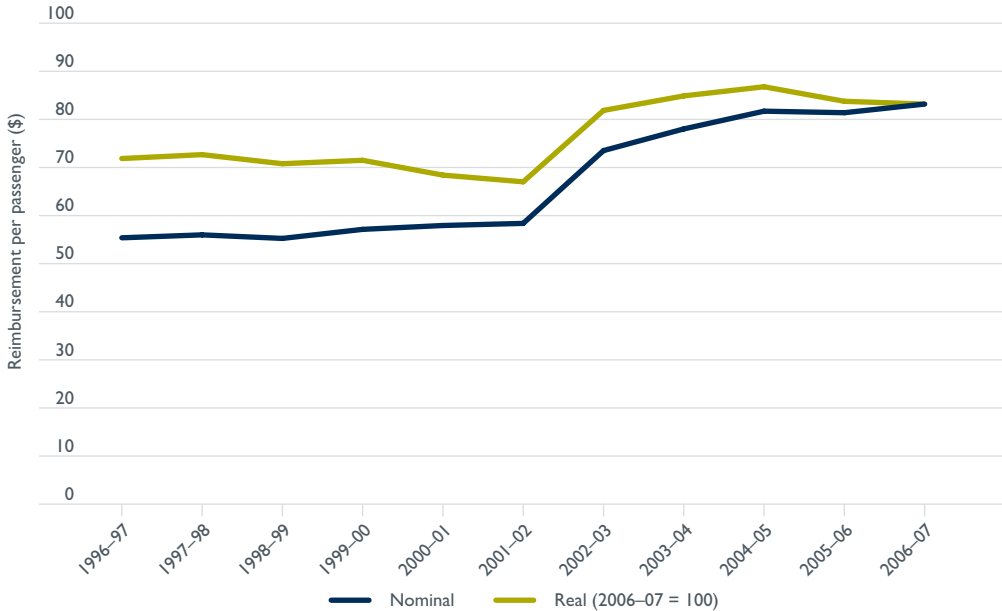
Figure 3.2 shows the seasonal nature of reimbursements—notably the peaks in January and April, and the large increase in rebates paid to TT-Line since 2002–03.

Figure 3.2 Value of TT-Line claims by period

Source: Tasmanian Assistance Services—personal communications October 2007, and earlier.

Figure 3.3 shows how the average rebate per eligible passenger increased following the 1 September 2002 changes in Ministerial Directions (2002).

Figure 3.3 Average reimbursement per motor vehicle passenger (\$), 1996–97 to 2006–07



Sources: Tasmanian Assistance Services—personal communications 2007 and earlier; TT-Line—personal communications 2007 and earlier.

Summary

- In 2006–07, the Australian Government spent \$28.34 million under the Scheme—a decrease of 9.5 per cent over 2005–06.
- Vehicle rebates were unchanged in 2006–07. The one-way rebate remained at \$150 for a car, \$75 for motorbikes, \$21 for bicycles and up to \$300 for larger vehicles.
- Total funding varies with the number and mix of eligible vehicles carried by sea across Bass Strait.
- Passengers must generally accompany their vehicles to be eligible for a rebate. TT-Line passengers pay the vehicle fare net of the rebate and the rebate is paid direct to the operator.
- TT-Line reimbursements in 2006–07 decreased to \$28.3 million (down 9.6 per cent) due to declining passenger numbers. TT-Line motor vehicle passenger one-way trips fell by 44 701 (down 11.6 per cent).
- While total rebate payments declined, the average nominal rebate for each TT-Line motor vehicle passenger increased 2.2 per cent to \$83.20. This was due to a decline in the average number of people per eligible vehicle.

Chapter 4 Changes in fares

Sea fares

The effect of the rebate for an eligible motor vehicle passenger varies according to the passenger fare type (full fare or concession), season of travel, the passenger's choice of accommodation and their vehicle type.

TT-Line's passenger and vehicle fares vary during the year reflecting the seasonal nature of demand. TT-Line made a number of changes to both passenger and vehicle fares in 2006–07. Passenger fares were increased twice over the year:¹⁴

- From 1 July 2006 TT-Line added a fuel surcharge of \$15 to passenger fares for each passenger leg. Discount fares were offered during daylight summer voyages and during the off-peak season from May to August.
- Passenger fares increased again on April 16 2007, generally by 4.7 per cent. Some daylight passenger fares and business seats fell in price (TT-Line 2007).

BITRE has constructed a benchmark sea fare in order to better understand changes in sea fares over time. This benchmark for the Melbourne–Devonport route for a TT-Line sea travel package for two adults with an inside three to four berth cabin, a motor car and two meals purchased on board. The passenger component of the benchmark fare an adult for the peak season increased \$27 to \$242 in 2006–07 (Table 4.1)—up 11.2 per cent.

Table 4.1 Benchmark one-way passenger fares Melbourne–Devonport (\$), end 2006–07^{a, b}

| <i>Passenger type</i> | <i>Off-Peak</i> | <i>Shoulder</i> | <i>Peak</i> |
|-----------------------|-----------------|-----------------|-------------|
| Adult | 212 | 222 | 242 |
| Pensioner | 135 | 142 | 154 |
| Senior | 183 | 191 | 209 |
| Child/student | 118 | 122 | 132 |

a. Calculated using TT-Line fares for an inside cabin (three to four berth), the benchmark accommodation for calculating the rebate. Melbourne–Devonport fares exclude meals.

b. Calculated using published TT-Line fare information applicable at 30 June 2007. Actual fare levels during respective seasons may have differed. Season dates in 2006–07 were: off-peak 1 May 2006–31 August 2006 and 1 May 2007–31 August 2007. Shoulder 1 September 2006–16 December 2006 and 26 January 2007–30 April 2007. Peak season fares applied 17 December 2006–25 January 2007.

Sources: TT-Line—personal communications 2007.

14. TT-Line's previously fare changes on 1 September 2005 had increased tertiary student fares to the same price as a full adult fare. All other fares remained unchanged.

Sydney–Devonport sea fares were unchanged for the remaining 13 voyages during 2006–07. Previously fare changes had included the increased tertiary student fare, leaving all other fares unchanged (Table 4.2).¹⁵ The Sydney–Devonport fare included meals and the voyage was longer—approximately 20 hours compared with 10 hours for Melbourne–Devonport service.

Table 4.2 Benchmark one-way passenger fares Sydney–Devonport (\$), August 2006^{a, b}

| <i>Passenger type</i> | <i>Off-peak</i> | <i>Shoulder</i> | <i>Peak</i> |
|-----------------------|-----------------|-----------------|-------------|
| Adult | 230 | 256 | 270 |
| Senior | 196 | 218 | 230 |
| Tertiary student | 230 | 256 | 270 |
| Child/student | 115 | 128 | 135 |
| Pensioner | 173 | 192 | 203 |

a. Calculated using TT-Line fares for an inside cabin (three to four berth), the benchmark used to calculate the rebate. Sydney–Devonport fares include dinner and brunch.

b. Calculated using published TT-Line fare information applicable at 30 June 2006. Actual fare levels during respective seasons may have differed. TT-Line introduced a new lower passenger fare structure for the Sydney service from 26 January 2005. Season dates 2006–07: off-peak 1 May 2006–31 August 2006 and 1 May 2007–31 August 2007. Shoulder 1 September 2006–16 December 2006 and 26 January 2007–30 April 2007. Peak season fares applied 17 December 2006–25 January 2007.

c. Pensioner fares apply to holders of Australian Pensioner Concession Card. Seniors fare applies to passengers 60 years and over. Child applies to children under 16 years of age. Children must be accompanied by an adult. Student applies to full-time secondary students 16–18 years of age. Proof of full time enrolment required.

Sources: TT-Line—personal communications 2006; fare eligibility conditions: http://www.spiritoftasmania.com.au/fares/passenger_fares.htm.

In addition to their own fare, TT-Line passengers pay a fare for their accompanying passenger motor vehicle. Melbourne–Devonport vehicle fares increased twice during 2006–07:

1. On 1 July 2006 standard vehicle fares increased by \$10 for all periods to \$69 all year round (net of the rebate). Increased fuel costs were cited as the reason for the lifting of the vehicle fares (TT-Line 2007).
2. On 16 April 2007 standard one-way vehicle fares rose by a further \$10 for all seasons bringing the one-way vehicle fare to \$79. Increasing operator costs were cited as the reason for the fare increase (TT-Line 2007).

Table 4.3 presents TT-Line vehicle fares—net of the Scheme rebate—as at 30 June 2007. Eligible vehicles towing trailers and eligible vehicles other than motor homes/campervans receive the standard vehicle rebate of \$150 one-way.

Net vehicle fares—including the rebate of \$150 per eligible standard vehicle—increased by a total \$20 over the year to \$79 each way, up 33.9 per cent (Table 4.3).

15. A major reduction in Sydney–Devonport fares occurred on 26 January 2005 when TT-Line introduced a new, lower passenger fare structure for the Sydney–Devonport service (TT-Line 2005a). This reduced BITRE's benchmark peak season sea fare on this route by 43 per cent.

Table 4.3 TT-Line one-way net fares for selected vehicle classes (\$), all routes, 30 June 2007^a

| <i>Vehicle type—length</i> | <i>Off-Peak</i> | <i>Shoulder</i> | <i>Peak</i> |
|---|-----------------|-----------------|-------------|
| Standard cars/vehicles and vehicles towing trailers less than 2.0 metres wide | | | |
| 0.1–5.0 metres | 79 | 79 | 79 |
| 5.1–6.0 metres | 121 | 121 | 121 |
| Campervans/motor homes less than 2 metres wide | | | |
| 0.1–6.0 metres | 79 | 79 | 79 |
| Motor homes/campervans and vehicles towing caravans ^a | | | |
| 0.1–7.0 metres | 79 | 79 | 103 |
| 7.1–8.0 metres | 111 | 137 | 172 |
| 8.1–9.0 metres | 143 | 195 | 241 |
| 9.1–10.0 metres | 175 | 253 | 310 |
| 10.1–11.0 metres | 207 | 311 | 379 |
| Over 11.0m + \$ per metre | 32 | 58 | 69 |
| Vehicles towing trailers or vehicles other than motor homes/campervans ^b | | | |
| 0.1–6.0 metres | 145 | 180 | 192 |
| 6.1–7.0 metres | 229 | 229 | 253 |
| 7.1–8.0 metres | 261 | 287 | 322 |
| 8.1–9.0 metres | 293 | 345 | 391 |
| 9.1–10.0 metres | 325 | 403 | 460 |
| 10.1–11.0 metres | 357 | 461 | 529 |
| Over 11.0m + \$ per metre | 32 | 58 | 69 |
| Motor bikes | 50 | 50 | 50 |
| Motor bike with side car or trailer | 108 | 108 | 108 |
| Push bikes | 8 | 8 | 8 |

a. Fares reflect vehicle fare increases from 16 April 2007.

b. Where total length is greater than 6 metres or width greater than 2 metres. Maximum height is 4.2 metres. Maximum width is 2.4 metres. This group of eligible vehicles receive the standard \$150 rebate.

Sources: TT-Line—personal communications 2007.

BITRE's benchmark net peak season sea fare (with the rebate) at the end of June 2007 was \$593—comprising passenger fares (two adults at \$242 per person), the standard vehicle fare with a rebate (\$79), and two meals purchased on board (\$30). This is an increase of \$74 (14.3 per cent) on the \$515 cost of the same package as at the end June 2006.

The effect of the Scheme on sea travel costs is illustrated in the following example.

During the off-peak season—1 May to 31 August—BITRE’s package sea fare, including the passenger fare, net vehicle fare (with the rebate) and meals, would have been \$521 one-way.

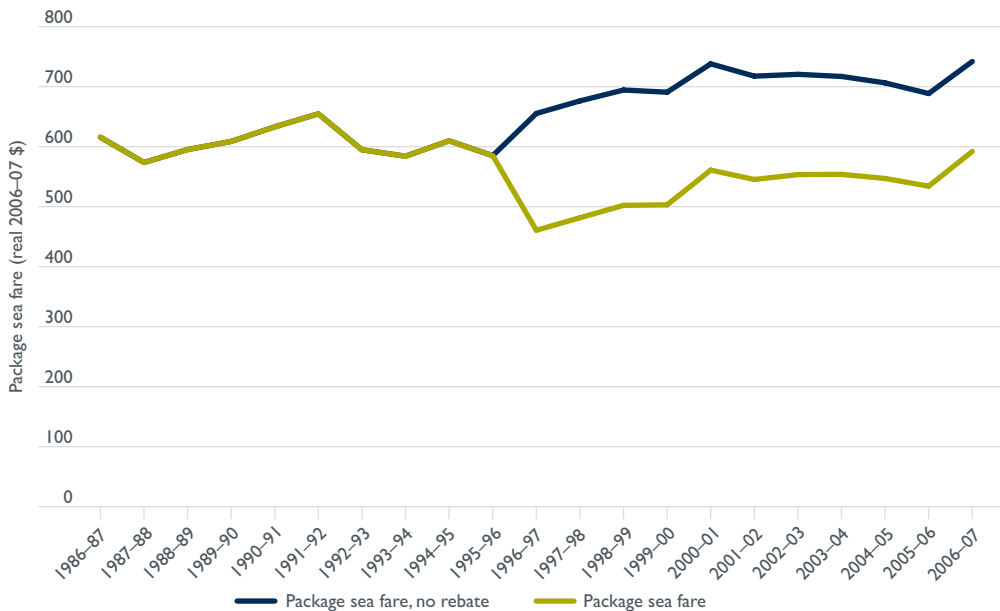
For a return journey and average fifteen night stay in Tasmania (with a \$26 per day spend on transport), the cost for the off-peak sea package would have been \$1432. The cost of this off-peak package would have increased by \$300 to \$1732 without the rebate—the Scheme reduced the cost of an off-peak sea package by 17.3 per cent.

If it were an eight night stay, then the cost of the off-peak season sea package would have been \$1250, \$1550 without the rebate—a 19.4 per cent reduction.

Figure 4.1 illustrates the effect of the standard rebate on the real (consumer price index adjusted) cost of BITRE’s peak season sea package for two adults with a standard vehicle at the end of June each year. It indicates that the cost of a peak season sea package at the end of June 2007 was comparable in real terms to prices prior to the introduction of the Scheme.

This analysis should be treated with caution given major improvements in the ships used to provide the service, changes in the on-board service offerings, that it is for the peak season only, and that passengers can choose different standards and prices of accommodation.

Figure 4.1 Real sea package prices for the peak season as at end of June, with and without a standard rebate, 2006–07 dollars



Note: This fare series is indicative and should be treated with caution given changes in the characteristics of the ships used to provide the service, and the fact that passengers can choose different standards and prices of accommodation.

Source: BITRE.

Motor vehicle fares for the Searoad Shipping service (*Searoad Mersey*) are shown in Table 4.4.

Eligible tourist vehicles on the Searoad Shipping service receive a free return trip, effectively halving the cost of a return trip. In order to receive the tourist vehicle rate the vehicle shipper must present air tickets, and return with the vehicle within three months.

Table 4.4 Motor vehicle fares for Searoad Shipping

| <i>Vehicle category</i> | <i>Cost one-way^a</i> |
|-------------------------------------|--|
| Vehicle up to 4.3 metres in length | \$404 (including an 8.8 per cent fuel surcharge and GST) |
| Vehicle 4.3 to 5.5 metres in length | \$536 (including an 8.8 per cent fuel surcharge and GST) |

a. Bona fide tourist vehicles receive a free return trip, effectively halving the cost of a return trip. Conditions apply to tourist rate include: shipper must present air tickets, return trip within three months and same vehicle must be shipped both ways.

Sources: Searoad Shipping—personal communications (2008).

Southern Shipping increases its motor vehicle fares in line with CPI. The fares applicable to June 2007 are illustrated in Table 4.5.

Table 4.5 Motor vehicle fares for Southern Shipping

| <i>Vehicle category</i> | <i>Excluding Wharfage (\$)</i> | | <i>Including Wharfage (\$)</i> | |
|-------------------------------------|--------------------------------|---------------|--------------------------------|---------------|
| | <i>One-way</i> | <i>Return</i> | <i>One-way</i> | <i>Return</i> |
| Vehicle up to 4.2 metres in length | 295.40 | 395.40 | 351.20 | 515.00 |
| Vehicle 4.2 to 4.5 metres in length | 428.90 | 528.90 | 488.70 | 648.50 |
| Vehicle 4.5 to 4.8 metres in length | 523.45 | 623.45 | 583.25 | 743.00 |
| Vehicle 4.8 to 5.9 metres in length | 646.60 | 746.60 | 736.30 | 926.00 |

Sources: Southern Shipping—personal communications (2008).

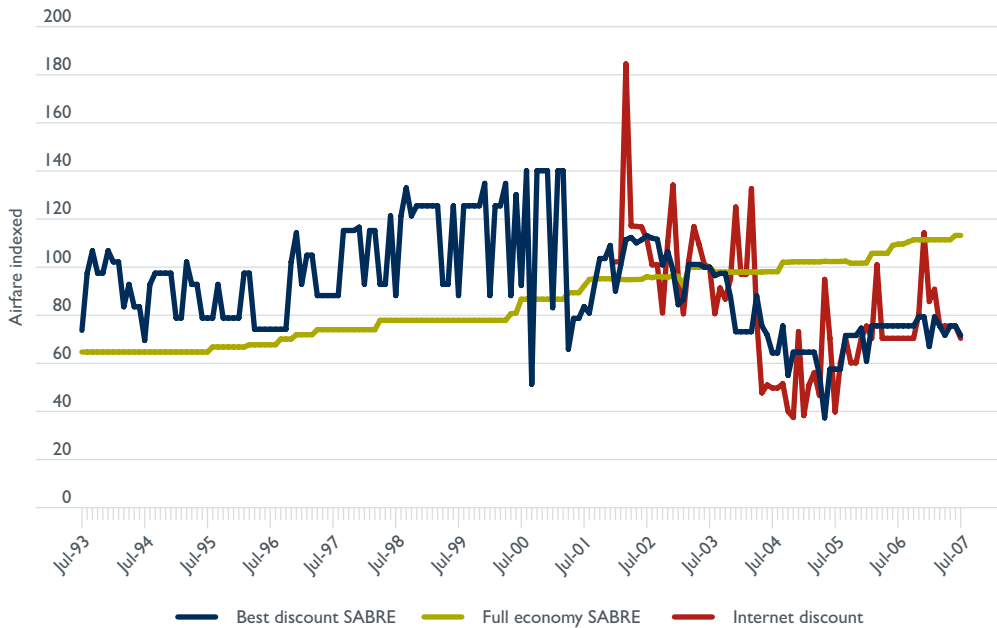
Air fares

The entry of low cost airlines into the Tasmanian market has resulted in substantial falls in discount air fares (Figure 4.2).¹⁶ Falls in discount air fares appear to have driven the rapid growth in the number of air passengers between the mainland and Tasmania since 2003–04.

BITRE's discount air fares index remained relatively stable between June 2006 and June 2007 after an increase of 26 per cent in the previous year.

16. Virgin Blue began operating flights between Melbourne and Launceston on 8 November 2001 (Virgin Blue, 2001). Jetstar—a low fares airline wholly owned by Qantas—commenced operations to Tasmania on 25 May 2004 (Jetstar, 2004).

Figure 4.2 Melbourne–Hobart air fare indices July 1993 to July 2007



Note: The full economy and best discount fare indices are constructed by a survey of fares on the SABRE Computer Reservation System. SABRE Pacific does not warrant the accuracy of any of the data provided by its system. Under no circumstances will SABRE Pacific be liable for the loss of profits, loss of use of contracts, or for any economic or consequential loss whatsoever, whether arising from errors in data, negligence, breach of contract or otherwise.

Base Index July 2003 = 100.

Source: BITRE air fares database, unpublished data.

Air and sea passenger ‘package’ comparison

In reducing the cost of sea travel to Tasmania the Scheme would be expected to result in additional visitors to Tasmania. However, by effectively reducing the cost of sea travel the Scheme also increases the attractiveness of sea travel as compared to air. When considering air and sea travel options the prospective visitor to Tasmania would consider more than just fares—most notably the costs of rental cars.

In order to put the rebate for eligible passenger vehicles in context, it is useful to consider the cost of broadly comparable sea and air transport packages—taking into account the length of stay in Tasmania by sea and air visitors, and differences in visitor spending on transport. The package sea fare used is for two adults¹⁷ and a standard accompanied passenger vehicle between Melbourne and Devonport.

The average amount spent on transport by air passengers while in Tasmania per night for 2006–07 was \$75, and the average spent on transport by sea passengers while in Tasmania was \$26¹⁸—a difference of \$49 per night.

17. No concessions.

18. \$26 per day spend on transport sourced from Tourism Tasmania survey. Total ignores costs associated with car ownership associated such as depreciation and maintenance.

Table 4.6 and Figure 4.3 compare the cost of this sea transport package with the cost of a fly-drive package for two adults for eight night and fifteen night packages. The average length of stay for air passengers has increased from seven to eight nights, whereas sea passengers have also increased their stay to an average of fourteen to fifteen nights.

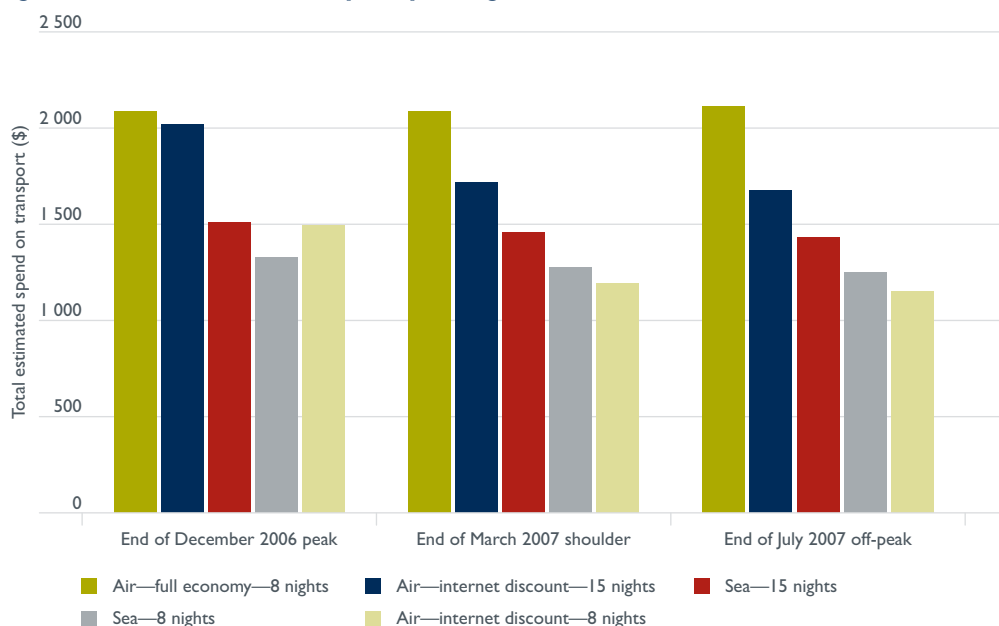
Table 4.6 Indicative transport package costs to Tasmania for sea and air travel

| | <i>End December 2006 peak (\$)</i> | <i>End of March 2007 shoulder (\$)</i> | <i>End of July 2007 off-peak (\$)</i> |
|---------------------------------------|--|--|---|
| Air : full economy eight nights | 2 087 | 2 087 | 2 111 |
| Air: internet discount fifteen nights | 2 021 | 1 717 | 1 677 |
| Sea: fifteen nights | 1 508 | 1 456 | 1 432 |
| Sea: eight nights | 1 326 | 1 274 | 1 250 |
| Air: internet discount eight nights | 1 496 | 1 192 | 1 152 |

Notes: All amounts include either sea or air return fares for two adults and the costs spent on land travel such as car hire while in Tasmania. The comparison is a simplified example to illustrate differences between air and sea travel costs and should be treated with caution.

Source: TT-Line—personal communications (2007), Tourism Tasmania Tasmanian Visitor Survey—personal communications (2007).

Figure 4.3 Indicative transport package costs to Tasmania for sea and air travel



Notes: The comparison is a simplified example to illustrate differences between air and sea travel costs and should be treated with caution. It is based on Tourism Tasmania visitor survey data on average lengths of stay and spends on transport while in Tasmania in 2006–07.

The months chosen for the comparison fall in TT-Line's off-peak, peak and shoulder periods, while the air fares also reflect similar levels—however; air fares are variable and can vary week to week. 'Best discount' air fares are subject to availability and restrictions which may make them unsuitable for some travellers. End of July 2007 was chosen for the comparison as this was an off-peak period for air fares.

Source: TT-Line—personal communications (2007), Tourism Tasmania Tasmanian Visitor Survey—personal communications (2007).

The months chosen for the comparison fall in TT-Line's off-peak, peak and shoulder periods, with the air fares reflect similar travel periods. Discount air fares are highly variable and may be unavailable or too restrictive for some travellers.

With this proviso, the comparison does indicate that in 2006–07:

- Sea travel was likely to have been a better option for those planning a longer (fifteen night) stay for all periods.
- The fly-drive scenario with a heavily discounted airfare—subject to availability—may have been the best deal in off-peak and shoulder seasons for those planning a shorter (eight night) stay.

Summary

- TT-Line increased Melbourne–Devonport passenger fares twice in 2006–07. The first was a \$15 fuel surcharge increase and the second was an increase of approximately 4.7 per cent for all passenger fares. Discounted fares during off-peak seasons and daylight voyages were also introduced.
- TT-Line increased vehicle fares twice on the Melbourne route in 2006–07.
- The cost of BITRE's peak season benchmark net sea package (with the rebate) at the end of June 2007 was \$593—an increase of \$74 (14.3 per cent) on the same package at the end June 2006. The passenger fare component rose \$27 to \$242 in 2006–07 (up 11.2 per cent). Vehicle fares for a standard vehicle including the \$150 rebate increased \$20 to \$79 (up 33.9 per cent).
- The cost of BITRE's peak season sea package at the end of June 2007 was comparable in real (consumer price index adjusted) terms to prices prior to the introduction of the Scheme. This should be treated with caution given service improvements, that it is for the peak season only, and that passengers have a choice of accommodation.
- The entry of low cost airlines has resulted in falls in discount air fares that have driven the rapid growth in the number of air passengers between the mainland and Tasmania since 2003–04. BITRE's discount air fares index remained relatively stable between June 2006 and June 2007.
- A comparison of air and sea package fares indicates sea travel was likely to have been a better option for those planning a longer (fifteen night) stay for all periods. For those planning a shorter (eight night) stay the fly-drive scenario with a heavily discounted airfare—subject to availability—may have been the best deal in off-peak and shoulder seasons.
- This comparison is a very simplified look at the differences between transport costs for air and sea travel, and therefore needs to be treated with caution—particularly given the variability of discount air fares.

Chapter 5 Impact of the Scheme on traffic

Why develop econometric models?

The rebate substantially reduces the cost of freighting an accompanying vehicle for eligible passengers. In 2006–07, the \$150 rebate on a standard car represented 20.2 per cent of BITRE’s benchmark one-way Melbourne–Devonport sea fare for a couple travelling with an eligible passenger car.¹⁹

These reductions in vehicle fares due to the Scheme would be expected to stimulate an increase in sea travel across Bass Strait. Lower fares would potentially attract new travellers as well as travellers from other markets—including other destinations in Australia. Lower vehicle sea fares may also encourage some travellers, notably fly-drive tourists, to switch from air to sea transport. It would also be expected that some berth-only sea passengers may choose to travel with their motor vehicle rather than hire a car.

Some of these factors are evident in the traffic trend comparisons. However, changes in the number of sea travellers since the introduction of the Scheme also reflect other factors such as population changes and income growth. BITRE has therefore constructed econometric models to help identify the impact of the Scheme on the number of motor vehicle sea passengers and the number of air passengers.

Econometric model for sea travel

The econometric model used to assess the impact of the Scheme estimates the relationship between the number of motor vehicle passengers—that is, sea passengers with an accompanying motor vehicle—and changes in population, real household disposable income, the sea package fare and the full economy air fare.

The sea model used in this monitoring report is the same model used in the previous three reviews.²⁰ The estimates in this report are for Melbourne–Devonport route only—that is, it does not predict additional passenger numbers for the Sydney service.²¹

19. The \$150 vehicle rebate makes up 20.2 per cent of the \$742 full benchmark sea package fare as at the end of June 2007.

20. The model was initially developed using time-series data from 1985–86 to 2000–01. BITRE re-specified the model for the 2002–03 report to take account of the substantial increases in capacity following the introduction of TT-Line’s new ships in September 2002.

21. The Sydney–Devonport service commenced in January 2004 and ceased in August 2006. Several years of data would have been needed before it would have been possible to produce reliable estimates of the impact of the Scheme on motor vehicle passenger numbers for this route.

The model includes three dummy variables; the first to account for the influence of the 1991–92 Gulf War, the second to account for the increase in capacity resulting from the introduction of the *Spirit of Tasmania I* and *II* from September 2002, and the third to account for changes in 2004–05 including the introduction of the Sydney service and the subsequent cessation of the service during the current year.

BITRE has used the sea fare (own-price) elasticity from the re-estimated model to calculate the net impact of the Scheme on one-way motor vehicle passenger numbers on the Melbourne–Devonport route. Appendix B outlines the model and data, and further discusses issues related to the modelling of the Bass Strait sea service.

Melbourne–Devonport sea model results

Table 5.1 presents estimates of the Scheme’s impact on the number of one-way trips by motor vehicle passengers based on a re-estimated model—this produces marginally increased estimates of the number of motor vehicle passenger trips for previous years, including 2005–06 (BTRE 2007; Table 5.1).

The estimated sea fare (own-price) elasticity of –1.12 obtained from the model indicates that a 1 per cent reduction in the sea fare leads to a 1.12 per cent increase in the number of one-way motor vehicle passengers (Table B2).²²

Table 5.1 Impact of the Bass Strait Passenger Vehicle Equalisation Scheme on Melbourne–Devonport motor vehicle passenger numbers, one-way trips, 1996–97 to 2006–07

| Year | Motor vehicle passenger one-way trips | | Difference ^e | Per cent change |
|----------------------|---|----------------------|-------------------------|-----------------|
| | Without Scheme (estimates) ^c | With Scheme (actual) | | |
| 1996–97 ^a | 114 956 | 153 045 | 38 089 | 33.1 |
| 1997–98 | 174 921 | 231 098 | 56 177 | 32.1 |
| 1998–99 | 199 805 | 261 487 | 61 682 | 30.9 |
| 1999–00 | 190 884 | 248 745 | 57 861 | 30.3 |
| 2000–01 | 204 650 | 259 438 | 54 788 | 26.8 |
| 2001–02 | 215 286 | 272 922 | 57 636 | 26.8 |
| 2002–03 | 343 630 | 432 498 ^d | 88 868 | 25.9 |
| 2003–04 ^b | 326 273 | 409 115 | 82 842 | 25.4 |
| 2004–05 ^b | 274 248 | 343 252 | 69 004 | 25.2 |
| 2005–06 ^b | 249 821 | 312 304 | 62 483 | 25.0 |
| 2006–07 ^b | 273 702 | 335 423 | 61 721 | 22.6 |
| All years | 1 770 405 | 2 268 348 | 497 943 | 28.1 |

- Data cover ten months only in 1996–97 as the Scheme commenced on 1 September 1996. Actual traffic (i.e. with the Scheme) in the full year 1996–97 was 167 788 persons.
- Data for 2003–04, 2004–05, 2005–06 and 2006–07 excludes the Sydney–Devonport route.
- Estimated values which may vary to previous values reported in earlier reports as the most up-to-date data is used for each subsequent year.
- The substantial increase in passenger numbers in 2002–03 is due to service changes that increased TT-Line capacity (the *Spirit of Tasmania III* together provided more than twice the passenger capacity and over three times the car capacity of the *Spirit of Tasmania*) and changes that extended eligibility for the rebate to more vehicle types and increased the off-peak and shoulder season rebates (Ministerial Directions 2002).

Sources: TT-Line data and BITRE analysis.

22. This is slightly higher than the sea fare elasticity estimate of 1.07 in the 2005–06 version of the model (BTRE 2007).

On the basis of this own-price elasticity, BITRE estimates that in 2006–07 the Scheme resulted in approximately 61 700 additional one-way trips by motor vehicle passengers between Melbourne and Devonport. This is an increase of 22.6 per cent relative to the likely situation without the Scheme (Table 5.1). This was down from 33.1 per cent of motor vehicle passengers when the Scheme was introduced in 1996–97.

As can be seen from Table 5.1, the number of one-way motor vehicle passengers attributable to the Scheme increased until 1998–99, then ranged between an estimated 53 000 to 56 000 motor vehicle passengers per annum until September 2002.

Following the September 2002 changes to the service and rebate structure, the number of one-way trips by motor vehicle passengers attributable to the Scheme increased to an estimated 86 000 in 2002–03. This has declined to approximately 61 700 in 2006–07.

The model results for 2006–07 indicate that the impact of the Scheme has continued to gradually decline as a proportion of total motor vehicle sea passengers on the Melbourne–Devonport route (Table 5.1). The (revised) proportion of motor vehicle passengers attributed to the Scheme has declined from 33.1 per cent of Melbourne–Devonport motor vehicle passengers in 1996–97 (when the Scheme was introduced) to 22.6 per cent in 2006–07.

Reliability of the estimates

The econometric model for Melbourne–Devonport performs well in terms of standard statistical tests. The variables included in the model explain 95 per cent of the variation in motor vehicle passenger numbers on the Bass Strait route between Melbourne and Devonport over the period 1985–86 to 2006–07. In addition, all of the estimated coefficients are significant and of the expected sign.

However, the Gulf War dummy variable in the 2006–07 sea model is significant only at the 20 per cent level. This variable was retained as it is considered important to the model specification—the first Gulf War (1991–92) was associated with a short term reduction in sea passenger numbers on the route—and its inclusion improved the overall explanatory power of the model.

This econometric model is affected by data limitations and detailed analysis should be interpreted with caution.²³ For example, the model uses annual data, covers a relatively short time period, and does not include some potentially relevant variables.

Despite these limitations, the results provide empirical support for the view that the Scheme has contributed to increased sea passenger travel between Melbourne and Devonport.

Trend comparisons

One of the expectations of the Scheme was that it would benefit the Tasmanian tourist industry (Sharp 1996, p. 1).

23. For example, prior to 2002–03 the model's sea fare (own-price) variable included peak-period fares only—that is it did not incorporate the higher or lower off-peak and shoulder rebates. The model may therefore have under or over estimated the impact of the Scheme in those years.

Table 5.2 gives the number of adult²⁴ visitors to Tasmania (return trips) by purpose of travel and mode over the eleven years to 2006–07. It includes sea passengers on the Sydney–Devonport service prior to the closing of the service in August 2006.

Tasmania experienced growth in the number of adult visitors travelling by sea for holiday and leisure purposes between 1996–97 and 2000–01. The large increase in holiday and leisure sea visitors in 2002–03 was largely due to the upgrading of the TT-Line service. At the same time, the Scheme was changed by extending eligibility to other vehicle types and raising off-peak and shoulder rebates—changes that would have further stimulated growth in sea passenger numbers.

Since 2003–04 the number of adult sea passengers travelling for holiday/leisure purposes has declined.

BITRE notes that it is no longer possible to identify trends in motor vehicle passenger numbers associated with the Scheme. The positive effects of the Scheme (an increase in motor vehicle passenger numbers) may only be separated from the impacts of other market changes (such as lower air fares) using econometric modelling.

Table 5.2 Estimated number of adult visitors travelling to Tasmania, by purpose and mode, 1996–97 to 2006–07^{a, b}

| Purpose/mode | 96–97 | 97–98 | 98–99 | 99–00 | 00–01 | 01–02 | 02–03 | 03–04 | 04–05 | 05–06 | 06–07 |
|--------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | (thousands) | | | | | | | | | | |
| Holiday/leisure | | | | | | | | | | | |
| Sea | 49.5 | 71.7 | 85.2 | 86 | 77.9 | 79.1 | 120.2 | 120.1 | 102.7 | 102.4 | 92.3 |
| Air | 171.8 | 187.5 | 191.3 | 204.5 | 192.9 | 180.2 | 222.7 | 271.4 | 267.1 | 285.2 | 291.1 |
| Visiting friends and relatives | | | | | | | | | | | |
| Sea | 12.8 | 16.2 | 18.3 | 17.5 | 17.2 | 17.6 | 33.7 | 22.7 | 18.6 | 16.1 | 15.8 |
| Air | 113.5 | 102.1 | 106.9 | 95.8 | 114.7 | 102.7 | 113.6 | 149 | 172.9 | 212.5 | 206.1 |
| Business | | | | | | | | | | | |
| Sea | 4 | 4.1 | 4.9 | 4.8 | 5.2 | 5.5 | 13.3 | 15.5 | 14.6 | 11.3 | 13.6 |
| Air | 75.8 | 71.4 | 70.3 | 80.3 | 63.8 | 85.3 | 96.9 | 103.3 | 122.2 | 123.0 | 123.0 |
| 'Other' ^c | | | | | | | | | | | |
| Sea | 7.3 | 4.4 | 5.5 | 3.9 | 9.2 | 8.4 | 11.5 | 7.7 | 10.4 | 11.1 | 6.1 |
| Air | 47.9 | 43.6 | 41.3 | 38.8 | 39 | 40.6 | 39.8 | 49.7 | 49.1 | 51.1 | 79.5 |
| Total | | | | | | | | | | | |
| Sea | 73.9 | 96.6 | 114.1 | 112.2 | 109.7 | 110.8 | 179 | 166.2 | 146.3 | 140.8 | 127.8 |
| Air | 409.2 | 404.8 | 409.8 | 419.4 | 410.5 | 409 | 473.2 | 573.5 | 611.2 | 671.7 | 699.3 |

Note: Data collected by survey and subject to sampling error.

a. Excludes minors and day trippers.

b. Includes passengers on the Sydney–Devonport services from 13 January 2004.

c. Includes attendance at conferences, other purposes and not specified.

Sources: Tourism Tasmania 'Tasmanian Visitor Survey'—personal communications (2001; 2007).

Trends in sea passenger categories

Figure 5.1 presents data on the number of motor vehicle sea passengers and berth-only sea passengers since 1995–96 (one-way trips)—including Sydney–Devonport passengers since 2003–04.

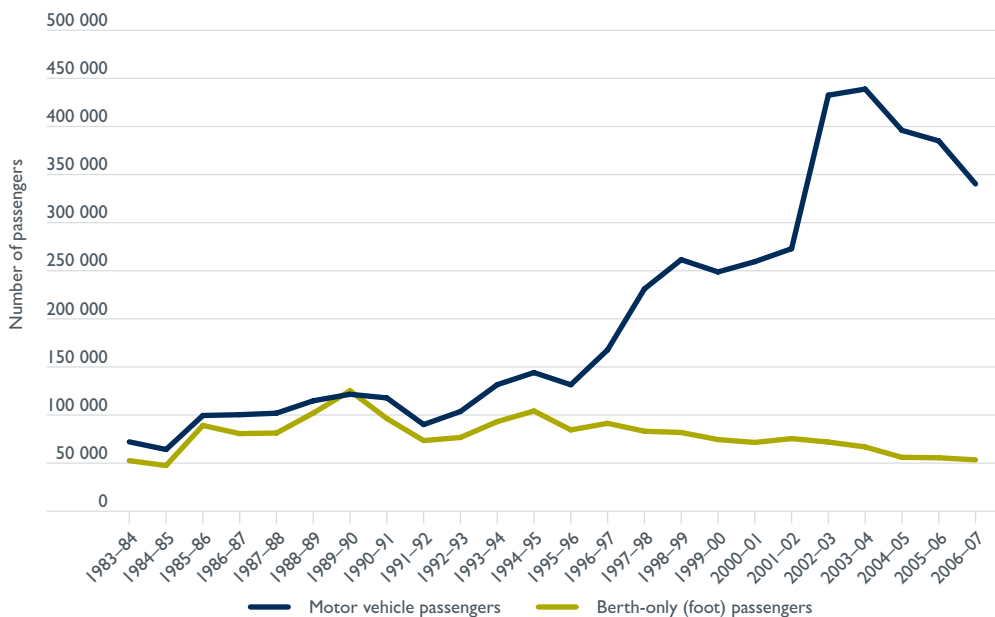
24. Tourism Tasmania visitor data are for adult visitors only, and are not directly comparable with TT-Line data which are expressed in terms of one-way trips and include children.

The average number of motor vehicle passengers per eligible vehicle has remained around 2.0 since the introduction of the Scheme, with changes in the number of motor vehicle passengers mirroring changes in the number of eligible vehicles.

The number of motor vehicle passengers since the start of the Scheme has generally risen while the number of berth-only passengers has generally declined. Motor vehicle passenger traffic rose by 227 per cent between 1995–96 and 2002–03, while berth-only passenger traffic fell by 37 per cent. The only exception to the upward trend in this period was 1999–00, when the number of motor vehicle passengers fell 5 per cent associated with engine problems on the *Spirit of Tasmania*.

Figure 5.1 shows a very large increase in the total number of passengers (155 915) carried by TT-Line in 2002–03 compared to the previous year—associated with the introduction of the new ships. This net increase in 155 915 passengers was due to an increase of 159 576 in the number of motor vehicle passengers, while the number of berth-only passengers fell by 3661.

Figure 5.1 Number of sea passengers^{a, b} carried across Bass Strait, one-way trips, 1995–96 to 2006–07



a. Includes both visitors and Tasmanian residents.

b. Data for 2003–04, 2004–05, 2005–06 and 2006–07 includes the Sydney–Devonport service.

Source: TT-Line—personal communications 2007 and earlier.

Between 1995–96 and 2002–03 the number of motor vehicle passengers—who may be eligible—generally rose while the number of berth-only passengers—not covered by the Scheme—generally declined. This indicates that the Scheme caused substitution between these types of sea travel—that is, it encouraged sea passengers to take their own motor vehicle.

Since 2003–04 motor vehicle passenger numbers have generally declined. Total sea passenger numbers have fallen by 111 962 (22.1 per cent), with the number of

motor vehicle passengers falling 98 568 (22.5 per cent) and the number of berth-only passengers down 13 394 (20.1 per cent).

Types of eligible vehicles

A breakdown of eligible vehicles for which reimbursements were paid from 2001–02 to 2006–07 (Table 5.3) shows cars have declined as a proportion of all eligible vehicles since the Scheme was broadened in September 2002.

Other vehicle types increased from 5 per cent of all eligible vehicles in 2001–02 to 15 per cent in 2006–07 (also 15 per cent in 2005–06).

Table 5.3 Eligible vehicles for which reimbursements paid, 2001–02 to 2006–07

| Eligible vehicles | Number of eligible vehicles | | | | | | Change from 2005–06 to 2006–07 |
|-----------------------------|-----------------------------|---------|---------|---------|---------|---------|--------------------------------------|
| | 2001–02 | 2002–03 | 2003–04 | 2004–05 | 2005–06 | 2006–07 | |
| Motor cars | 128 353 | 196 871 | 199 902 | 188 757 | 179 955 | 160 823 | –10.6% |
| Eligible vehicles + caravan | 0 | 7 359 | 9 648 | 10 186 | 10 798 | 10 969 | 1.6% |
| Motorcycles | 6 303 | 7 023 | 8 699 | 8 791 | 11 402 | 7 720 | –32.3% |
| Motor homes | 0 | 5 991 | 9 023 | 7 870 | 7 891 | 8 177 | 3.6% |
| Pushbikes | 0 | 1 188 | 431 | 992 | 692 | 692 | 0.0% |
| Buses | 324 | 474 | 791 | 365 | 370 | 311 | –15.9% |
| Total | 134 980 | 218 906 | 22 8494 | 216 961 | 211 108 | 188 692 | –10.6% |

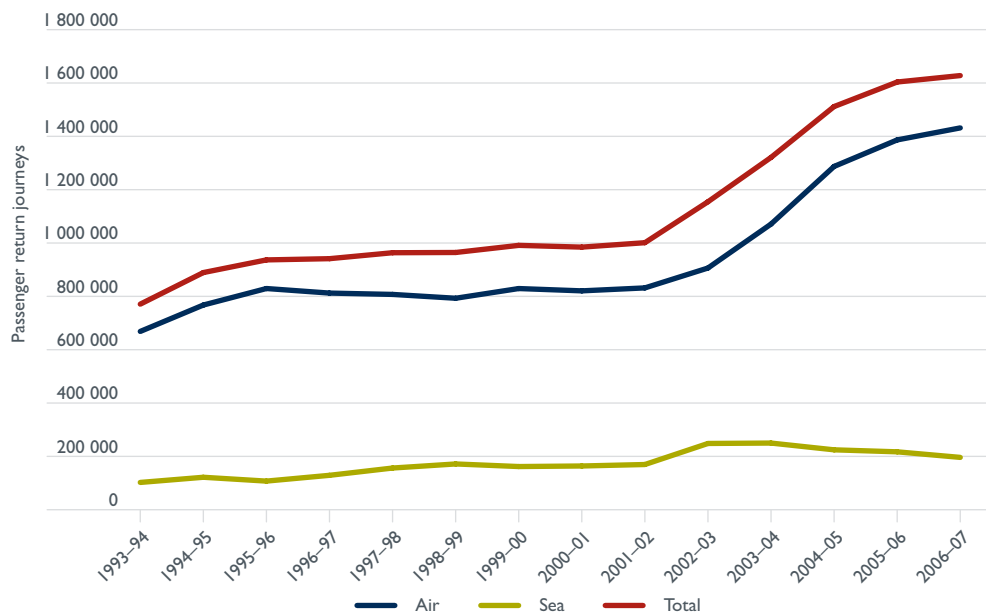
Sources Tasmanian Assistance Services—personal communications 2003–2007.

Air and sea traffic trends

Figure 5.2 shows the number of sea passengers—who are mainly covered by the Scheme—and air passengers carried between the mainland and Tasmania since 1993–94. Up to 1995–96, air traffic grew strongly while sea traffic increased slightly.

The Scheme applied to travel from 1 September 1996. In the period from 1995–96 to 1998–99, sea traffic grew 60 per cent while air traffic declined 4 per cent.

Figure 5.2 Sea and air passengers carried across Bass Strait, return journeys, 1993–94 to 2006–07



Note: Data includes day trippers and minors.

Source: Tourism Tasmania Tasmanian Visitor Survey—personal communications.

Over the period from 1998–99 to 2001–02 there was a decline in sea traffic of one per cent—at least partly due to the breakdown of the *Spirit of Tasmania*—while air traffic increased by five per cent. From 2001–02 to 2002–03, sea traffic grew 47 per cent and air traffic grew nine per cent—reflecting in large part the introduction of the new *Spirit of Tasmania I* and *II* in September 2002.

Between 2002–03 and 2003–04 this growth pattern reversed. The number of air passengers grew by 18 per cent while sea passenger numbers grew less than one per cent—despite the Sydney–Devonport service which started in January 2004.

In 2004–05 air passenger numbers continued to grow whereas sea passenger numbers declined. This reduction in the number of sea passengers was associated with significant falls in discount air fares. This trend continued in 2005–06 and 2006–07 with growth in air passenger numbers and a decline in sea passenger numbers.

The period since 2002 has seen major changes in both the air market (entry and expansion of both Virgin Blue and Jetstar) and sea market (the replacement of the *Spirit of Tasmania* with the *Spirit of Tasmania I* and *II* in September 2002, the introduction of the Sydney–Devonport service in January 2004 and subsequent cessation in August 2006).

While the entry of low cost carriers and reduction in air fares helps explain the drop in sea passenger numbers since 2003–04, the reduction in 2006–07 sea passenger numbers may be explained by a combination of an increase in sea fares and cessation of the Sydney–Devonport service.

Assessing the impact of the Scheme on tourism

When the Scheme was introduced in 1996 the tourism industry was cited as an area where there would be direct benefits of increased demand for sea travel (Chapter 1).

The number of new leisure or holiday visitors who travelled because of the rebate, and their additional spending in Tasmania, is an important—albeit partial—indicator of the impact of the Scheme.

The number of motor vehicle passengers grew substantially between 1996 and 2003–04. Other trends indicate that some of this growth has been at the expense of other travel demands—notably the continued decline in berth-only passengers, but also potentially reduced air traffic demand.

While lower sea fares may have had an impact on some categories of air travel, BITRE has not adjusted for any reduction in air travel demand as the econometric model of the Melbourne–Tasmania air market found no statistically significant relationship between air travel demand and the price of sea travel (BTRE 2006b, Appendix C).²⁵

Berth-only passenger numbers have declined since the introduction of the Scheme in 1996. Before the introduction of the Scheme the ratio of berth-only to total sea passengers remained fairly steady, with a small peak in 1989–90 at the time of the pilots dispute.

The trend over the next five years was for a steady overall growth in the number of berth-only passengers. Extrapolating this growth trend from 1996 provides an indicative estimate of the number of berth-only passengers that may have travelled without the Scheme.

This extrapolation indicates that the rebate may have reduced the number of berth-only sea passenger movements by approximately 46 500 in 2006–07 compared to the hypothetical situation without the Scheme.

Assuming the Scheme resulted in these berth-only sea passengers choosing to become motor vehicle sea passengers, BITRE has subtracted this estimate of 46 500 fewer berth-only passenger movements from the econometric estimate of just over 61 700 additional motor vehicle passenger movements—that is, 75 per cent of the additional motor vehicle sea passengers may have travelled anyway as berth-only sea passengers.

The net effect of the Scheme may therefore have resulted in a 15 000 increase in one-way motor vehicle sea passengers between Melbourne and Devonport in 2006–07. Assuming each passenger made a return trip with their vehicle, this equates to an estimated 7500 return motor vehicle passengers.

Tourism Tasmania visitor survey data indicates that approximately half of these new passengers are likely to have been tourists—that is, visitors to Tasmania travelling for holiday or leisure purposes (Table 2.1).²⁶

25. Possible explanations include data limitations and limited substitutability of sea travel for most air passengers.

26. That is, sea passenger numbers minus the estimated number of Tasmanian residents and visitors travelling for non-leisure reasons (including visiting friends/relatives and business reasons).

The indicative number of new leisure visitors who travelled by sea between Melbourne and Devonport is therefore approximately 3750.

If each of these new visitors spent an average of \$2332 per person,²⁷ then the total additional new tourism spending would have been \$8.7 million.

It is important to note that this estimate is indicative as it is derived by extrapolating pre-Scheme trends in the number of berth-only passengers on the Melbourne–Devonport service only. Further, it does not include:

- benefits to Tasmanian residents who travelled by sea who may have been eligible, or benefits to eligible visitors travelling for non-leisure purposes
- benefits to passengers using the Sydney–Devonport ferry service
- any incremental spending related to longer stays by berth-only visitors who decide to take a car, or by visitors switching from air to sea transport who decide to stay longer in Tasmania as a result.

Given an average spend of \$2332, the Scheme would need to have increased the number of additional visitors to Tasmania by 12 100 in 2006–07 for the increase in spending to equal the total rebate paid.

Summary

- The rebate reduces the cost of freighting an accompanying vehicle for eligible passengers. In 2006–07 the \$150 standard rebate represented 20.2 per cent of BITRE’s benchmark one-way Melbourne–Devonport sea fare for a couple travelling with an eligible passenger car (22.4 per cent in 2005–06).
- BITRE’s econometric modelling indicates the Scheme increased one-way motor vehicle passenger numbers between Melbourne and Devonport by an estimated 61 700 additional one-way trips in 2006–07.
- The proportion of Melbourne–Devonport motor vehicle passengers attributed to the Scheme was 22.6 per cent in 2006–07—down from 33.1 per cent of motor vehicle passengers when the Scheme was introduced in 1996–97.
- In 2006–07, total sea passengers between the mainland and Tasmania declined while total air passengers continued to grow. Since 2003–04, the number of adult sea passenger numbers travelling for holiday/leisure purposes has declined.
- While the entry of low cost carriers and reduction in air fares helps explain the drop in sea passenger numbers since 2003–04, the reduction in 2006–07 sea passenger numbers may be explained by a combination of an increase in sea fares and cessation of the Sydney–Devonport service.
- Traffic trends since 1996 indicate that the Scheme has encouraged berth-only sea passengers to take their own motor vehicle. Approximately 75 per cent of the 61 700 additional motor vehicle sea passengers may have travelled anyway as berth-only sea passengers.

27. The average spending by sea passengers (for all journey purposes) was \$2332 per trip in 2006–07 (Tourism Tasmania, personal communication 2007).

- BITRE's indicative estimate of the number of new leisure visitors who travelled by sea from Melbourne in 2006–07 as a result of the Scheme is approximately 3750. If each new leisure visitor spent an average \$2332 then the additional new tourism spending would have been \$8.7 million in 2006–07. This estimate does not include spending by visitors travelling for business purposes, to visit friends or relatives, or for 'other' purposes.

Chapter 6 Operator revenue and expenses

The Ministerial Directions require BITRE's annual monitoring report to have specific regard to service operators' financial performance. This chapter focuses on TT-Line, which accounts for over 99 per cent of payments under the Scheme.

TT-Line performance in 2006–07

TT-Line reported a net profit of \$10.6 million in 2006–07.

The underlying operating profit was \$4.2 million, compared with an underlying operating loss of \$33.5 million²⁸ for 2005–06. According to TT-Line this reversal was due to the cessation of the Sydney service and return of the Melbourne service to operating profitability.

On 5 June 2006, the Tasmanian Government decided to sell the *Spirit of Tasmania III* and cease the Sydney service (TT-Line 2006a). The ferry was subsequently sold to Corsica Ferries for \$111.475 million, recouping all acquisition costs (TT-Line 2006b). *Spirit of Tasmania III* carried more than 175 000 passengers over 2.5 years, with the final service departing Sydney on 27 August 2006 (TT-Line 2006c).

Total passenger and vehicle numbers fell in 2006–07 (see Chapter 2). According to TT-Line, factors having an impact in 2006–07 besides the cessation of the Sydney service were increased passenger and vehicle fares, with discounted rates for off-peak periods and daylight summer sailings (TT-Line 2007).

TT-Line operating revenues were \$155.34 million in 2006–07, down \$3.5 million (2.2 per cent). Operating expenses were \$151.8 million, down \$40.6 million (21.1 per cent) compared to 2005–06 values adjusted for ship revaluations. Significant changes in operating expenses in 2006–07 included:

- hotel services—down 23.0 per cent (–\$7.941 million).
- ship depreciation—down 38 per cent (–\$5.452 million).
- finance costs (interest on loans)—down 44 per cent (–\$5.436 million).

During the financial year the TT-Line Company directors decided to lengthen the useful lives of the ships from 25 to 30 years. The financial effect of this was to reduce the depreciation expense in the current year by \$3.285 million (TT-Line 2007, p.40).

The Tasmanian Government injected an additional²⁹ \$22.5 million into TT-Line in 2006–07 to make debt repayments/reductions (TT-Line 2007, p. 16), bringing the total funds injected to \$160.2 million over the last three years.

28. \$27.7 million of the 2005–06 loss was attributable to the *Spirit of Tasmania III* (TT-Line 2006c, p. 4)

29. In addition to the \$75.2 million capital injection in 2004–2005 and \$62.5 million in 2005–06.

Table 6.1 Selected financial information for TT-Line, 1996–97 to 2006–07 (\$)

| Category | 1996–97 | 1997–98 | 1998–99 | 1999–00 | 2000–01 | 2001–02 | 2002–03 | 2003–04 | 2004–05 | 2005–06 | 2006–07 |
|---------------------------|-------------|---------------------|---------|---------|---------|---------|----------------------|---------|---------|---------|---------|
| | (thousands) | | | | | | | | | | |
| Total operating revenue | 61 766 | 73 325 ^a | 80 607 | 77 511 | 81 842 | 86 236 | 195 518 ^b | 154 250 | 154 874 | 158 882 | 155 336 |
| Operating expenses | | | | | | | | | | | |
| Operations: general | 22 357 | 22 724 ^a | 33 932 | 40 865 | 42 864 | 42 402 | 69 454 | 90 900 | 118 603 | 120 798 | 93 187 |
| Operations: write down | 0 | 0 | 0 | 0 | 0 | 30 887 | 0 | 0 | 43 237 | -43 237 | 0 |
| Ship sale carrying value | 0 | 0 | 0 | 0 | 0 | 0 | 62732 | 0 | 0 | 0 | 0 |
| Hotel services | 15 296 | 15 464 | 17 783 | 16 924 | 17 782 | 18 130 | 27 708 | 33 878 | 34 306 | 34 575 | 26 634 |
| Customer acquisition | 4 893 | 4 698 | 6 015 | 5 900 | 6 261 | 6 680 | 11 437 | 10 574 | 13 222 | 16 234 | 16 466 |
| Administration | 6 098 | 6 219 | 5 707 | 4 889 | 6 871 | 7 462 | 8 902 | 8 340 | 8 593 | 8 478 | 8 665 |
| Other | 10 556 | 22 406 | 9 793 | 8 697 | 2 696 | 1 958 | 12 673 | 13 954 | 16 192 | 12 245 | 6 809 |
| Total operating expenses | 59200 | 71 511 | 73 230 | 77 275 | 76 474 | 107 519 | 192 906 | 157 646 | 234 153 | 149 093 | 151 761 |
| Operating profit/loss | 2 566 | 1 814 | 7 377 | 236 | 5 368 | -21 283 | 2 612 | -3 396 | -79 279 | 9 789 | 3 575 |
| Abnormals/extraordinaries | 0 | 780 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Profit/loss | 2 566 | 1 034 | 7 377 | 236 | 5 368 | -21 283 | 2 612 | -3 396 | -79 279 | 9 789 | 3 575 |

a. Ferry revenue and operations-general expenses in 1997–98 include the impact of the Devil Cat/catamaran trial.

b. Total operating revenue in 2002–03 included gross proceeds of \$61.2 million from the sale of the *Spirit of Tasmania*.

c. The 2004–05 write down in ship values reflected the change from a 'cost' to a 'valuation' accounting method.

d. In 2005–06, the ships were re-valued based on market values for similar vessels in Europe—the major market for this type of roll-off ferry—and converted from Euros to Australian dollars using the exchange rates as at 30 June 2006. TT-Line (2006d, pp 1–2) states that—while the underlying value of the ships did not change—the translation into Australian dollars increased the value of the ships in the company accounts.

Source: TT-Line Annual Report (2007) and previous annual reports; TT-Line (2006d, pp 1–2); TT-Line (personal communication January 2001).

Financial indicators

Table 6.2 presents a series of selected TT-Line financial indicators adjusted for ship write downs and revaluations.

Table 6.2 Financial indicators (adjusted) for TT-Line, 1996–97 to 2006–07

| Indicator | 96–97 | 97–98 | 98–99 | 99–00 | 00–01 | 01–02 | 02–03 | 03–04 | 04–05 | 05–06 | 06–07 |
|---|---------|---------|---------|---------|---------|----------------------|----------------------|---------|----------------------|----------------------|---------|
| Operating revenue per voyage ^a | 197 335 | 166 648 | 159 618 | 170 354 | 171 218 | 177 806 | 158 710 ^c | 149 903 | 147 219 | 156 380 | 189 897 |
| Operating expenses ^b per passenger | 228 | 228 | 213 | 239 | 231 | 220 ^d | 258 ^d | 312 | 422 ^e | 437 ^f | 385 |
| per voyage | 189 137 | 162 525 | 145 010 | 169 835 | 159 987 | 158 004 ^d | 153 870 ^d | 153 203 | 181 479 ^e | 189 301 ^f | 185 527 |

a. Total revenue divided by the number of voyages.

b. Incorporates expenses for passengers, vehicles and freight.

c. Revenue adjusted to exclude gross proceeds from the sale of *Spirit of Tasmania* in 2002–03.

d. Expenses adjusted to exclude write-down in carrying value of *Spirit of Tasmania* in 2001–02 and carrying value of this ship in 2002–03.

e. Expenses adjusted to exclude write-down of \$43.24 million in the total value of all three ships.

f. Expenses adjusted to exclude asset revaluation of \$43.2 million.

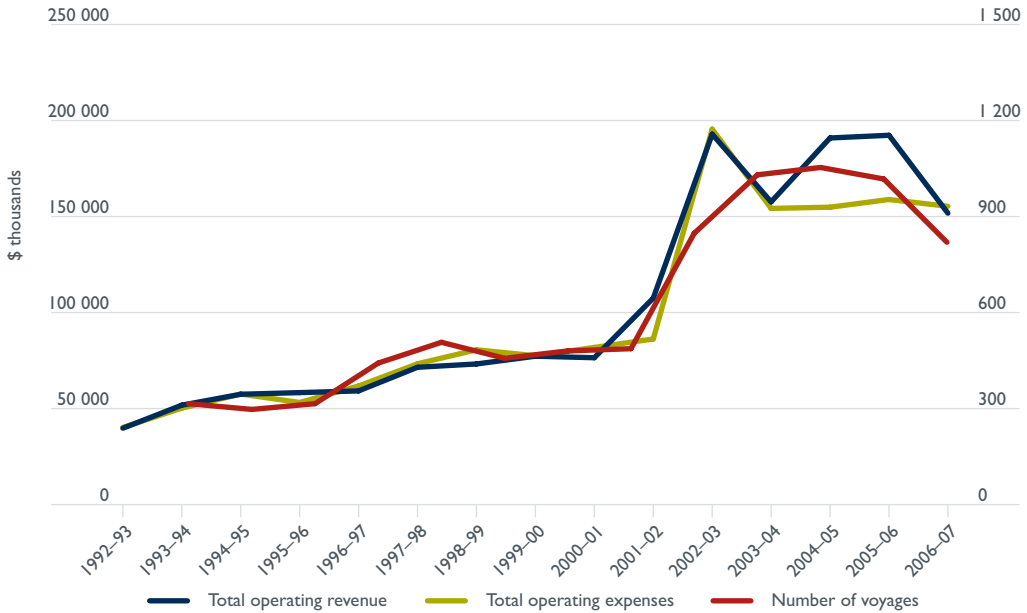
Source: TT-Line Annual Report (2007) and previous annual reports; BITRE estimates.

After adjusting for capital items:

- Average revenue per voyage has risen for the second consecutive year.
- Average voyage operating expenses in 2006–07 decreased by 19.9 per cent, reflecting the cessation of Sydney services.
- The average cost per passenger decreased by 27.9 per cent.

Figure 6.1 shows the gap between operating revenue and operating costs and the decreasing number of TT-Line voyages (excluding the \$43.2 million write down in ship values in 2004–05 and the 2005–06 asset revaluation).

Figure 6.1 TT-Line operating revenue, expenses and number of voyages



Note: 2004–05 operating expenses exclude asset devaluation, and 2005–06 operating expense excludes asset revaluation.

Source: TT-Line Annual Report (2007) and previous annual reports.

Table 6.3 shows reimbursements to TT-Line and their operating revenue.

Scheme reimbursements increased from \$8.47 million (17.6 per cent of revenue) in 1997–98, the first full year of application of the Scheme, to a peak of \$34.24 million (22.2 per cent of revenue) in 2003–04.

Reimbursements totalled \$28.3 million by 2006–07 (Figure 6.2). The decline in 2006–07 reimbursements was largely due to the fall in eligible vehicle numbers brought about by the closure of the Sydney service.

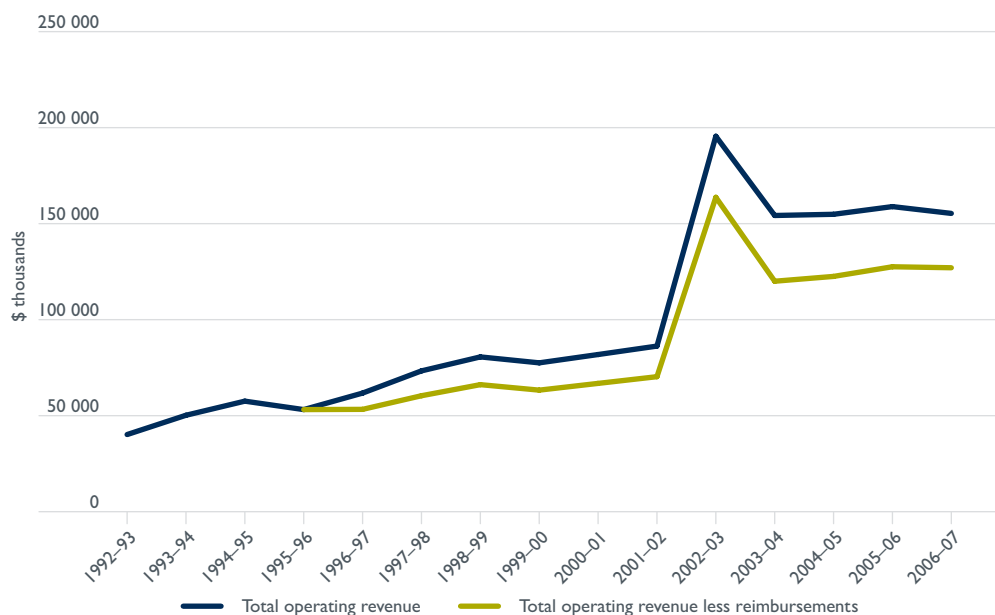
Rebates as a proportion of total TT-Line revenue had reached a peak of 23.7 per cent in 2002–03. In 2006–07, reimbursements again declined as a proportion of TT-Line operating revenue to 18.2 per cent, the fourth successive annual decline.

Table 6.3 TT-Line reimbursements and (adjusted) operating revenue, 1996–97 to 2006–07

| Year | Reimbursements paid to TT-Line (\$) | TT-Line operating revenue (\$) | Reimbursements as a proportion operating revenue (per cent) |
|---------|-------------------------------------|--------------------------------|---|
| 1996–97 | 8 474 915 | 61 766 000 | 13.7 |
| 1997–98 | 12 938 565 | 73 325 000 | 17.6 |
| 1998–99 | 14 446 755 | 80 607 000 | 17.9 |
| 1999–00 | 14 211 445 | 77 511 000 | 18.3 |
| 2000–01 | 15 030 670 | 81 842 000 | 18.4 |
| 2001–02 | 15 932 170 | 86 236 000 | 18.5 |
| 2002–03 | 31 793 065 | 134 269 000 ^a | 23.7 |
| 2003–04 | 34 235 612 | 154 250 000 | 22.2 |
| 2004–05 | 32 349 808 | 154 874 000 | 20.9 |
| 2005–06 | 31 331 361 | 158 882 000 | 19.7 |
| 2006–07 | 28 304 136 | 155 336 000 | 18.2 |

a. Excludes gross proceeds (\$61.2 million) from the sale of *Spirit of Tasmania* in 2002–03.

Source: TT-Line Annual Report (2007) and previous annual reports.

Figure 6.2 Adjusted TT-Line revenue and revenue net of Scheme rebates, 1992–93 to 2006–07

Note: Excludes gross proceeds (\$61.2 million) from the sale of *Spirit of Tasmania* in 2002–03.

Source: TT-Line Annual Report (2007) and previous annual reports.

Summary

- TT-Line reported a net profit of \$10.6 million in 2006–07.
- The underlying operating profit was \$4.2 million for 2006–07, compared with an operating loss of \$33.5 million for 2005–06.
- According to TT-Line this reversal was due to the return of the Melbourne service to operating profitability and cessation of the Sydney service in August 2006. The *Spirit of Tasmania III* was subsequently sold.
- TT-Line operating revenues were \$155.34 million, down 2.2 per cent. Adjusted operating expenses were \$151.8 million, down 21.1 per cent (compared to 2005–06 values adjusted for ship revaluations).
- The Tasmanian Government injected an additional³⁰ \$22.5 million into TT-Line in 2006–07 to make debt repayments/reductions, bringing total funds injected to \$160.2 million over the last three years.
- During 2006–07 the TT-Line Company directors decided to lengthen the useful lives of the remaining ships from 25 to 30 years. The financial effect was to reduce the depreciation expense by \$3.285 million.
- TT-Line average revenue per voyage rose for the second consecutive year.
- The average cost per passenger decreased and average voyage operating expenses in 2006–07 decreased by 19.9 per cent, reflecting the cessation of Sydney services.
- In 2006–07, Scheme rebates fell to 18.2 per cent of TT-Line operating revenue—the fourth successive decline.

30. In addition to the \$75.2 million capital injection in 2004–2005 and 62.5 million in 2005–06.

Appendix A Monitoring provisions in 2002 Ministerial Directions

- 1.1 A Service Operator who claims reimbursement under the Scheme shall be subject to monitoring by the Bureau.
- 1.2 The Bureau shall, on an annual basis, monitor the effectiveness of the Scheme, with specific regard to:
 - (a) movement in a Service Operator's annual operating costs;
 - (b) movement in an Operator's revenue; and
 - (c) the number of eligible passengers, eligible passenger vehicles and number of passengers travelling under related bookings, carried per annum by the Operator.
- 1.3 A Service Operator shall comply with all reasonable requests by the Bureau for information or access to documentation, in relation to the Bureau's monitoring function.

Appendix B Model of sea passenger traffic

This appendix outlines the re-estimated model that was used to assess the impact of the Scheme on the Melbourne–Devonport sea route.

The Melbourne–Devonport model

The model is specified in terms of population, income, own-price and cross-price variables in the following equation:

$$\ln V_t = \ln Y_t * \ln P_t * \ln Q_t * DGW_t * DSP_t * DSY_t * u_t$$

where

V = per capita number of motor vehicle passenger movements;

Y = per capita real household disposable income of motor vehicle passengers;

P = one-way package sea fare (including reductions under the Scheme from 1996–97);

Q = one-way economy air fare from Melbourne to Hobart;

DGW = Dummy Gulf War—dummy variable to take account of the influence of the 1991–92 Gulf War on the number of motor vehicle passengers;

DSP = dummy *Spirit of Tasmania*—dummy variable to take account of the influence of an increase in the passenger capacity of TT-Line following the introduction of the *Spirit of Tasmania III*;

$DSYD$ = dummy Sydney service—a new dummy variable to account for changes in 2004–05, 2005–06 and 2006–07 including the new Sydney service;

u = error term;

t = time period.

The influence of population on the number of motor vehicle passenger movements is included by specifying the model on a per capita basis using the population of Australia. BITRE re-estimated the model using annual time series data from 1985–86 to 2006–07. The time series data are contained in Table B1.

Table B1 Time-series data used to re-estimate the Melbourne–Devonport econometric model

| Year | Motor vehicle passengers (one-way) ^a (thousands) | Air fare Index ^{b,d} | Sea fare ^{c,d} (\$ per package) | Real Income ^e (\$ billion) | Population ^f (millions) |
|---------|---|-------------------------------|--|---------------------------------------|------------------------------------|
| 1985–86 | 99.5 | 38.6 | 291 | 348.3 | 15.7 |
| 1986–87 | 100.3 | 41.9 | 317 | 349.8 | 15.9 |
| 1987–88 | 101.9 | 44.5 | 317 | 354.8 | 16.1 |
| 1988–89 | 114.8 | 47.0 | 353 | 372.3 | 16.8 |
| 1989–90 | 121.6 | 52.0 | 390 | 397.9 | 17.1 |
| 1990–91 | 117.8 | 57.0 | 427 | 391.0 | 17.3 |
| 1991–92 | 90.1 | 60.9 | 450 | 390.5 | 17.5 |
| 1992–93 | 103.6 | 56.4 | 413g | 399.1 | 17.7 |
| 1993–94 | 131.5 | 61.2 | 413g | 411.2 | 17.9 |
| 1994–95 | 144.1 | 61.2 | 445 | 429.8 | 18.1 |
| 1995–96 | 131.5 | 63.3 | 445 | 445.1 | 18.3 |
| 1996–97 | 167.8 | 67.4 | 355 | 454.7 | 18.5 |
| 1997–98 | 231.1 | 70.9 | 371 | 461.7 | 18.7 |
| 1998–99 | 261.5 | 73.7 | 392 | 479.0 | 18.9 |
| 1999–00 | 248.7 | 74.1 | 402 | 500.8 | 19.2 |
| 2000–01 | 259.4 | 82.6 | 475 | 520.9 | 19.4 |
| 2001–02 | 272.9 | 89.6 | 475 | 531.3 | 19.7 |
| 2002–03 | 432.5 | 91.8 | 497 | 533.8 | 19.9 |
| 2003–04 | 409.1 | 91.1 | 509 | 561.9 | 20.1 |
| 2004–05 | 343.3 | 94.3 | 515 | 590.8 | 20.4 |
| 2005–06 | 312.3 | 93.4 | 519 | 617.4 | 20.7 |
| 2006–07 | 335.4 | 100.0 | 592 | 646.6 | 21.0 |

a. Motor vehicle passengers carried across Bass Strait between Melbourne and Devonport.

b. Average one-way economy air fare index from Melbourne to Hobart (nominal dollars).

c. Average one-way package net fare during peak season (nominal dollars). The package net fare includes two adults, two meals and a standard vehicle.

d. The air fare and sea package fare indices are in nominal rather than real dollars—this implies the expenditure on travel is not a direct substitute for other goods and services.

e. Real household disposable income of Australians at current (2006–07) prices.

f. Population of Australia.

g. The representative passenger fare declined as a meal was not included in the price of a ticket in these two years. The lower fare is used in the analysis as it is the fare on which travellers based their travel decisions.

Source: TT-Line Annual Report (2007) and previous annual reports. TT-Line—personal communications (2007), ABS (2008), BTRE (2006a; 2006b).

Results of the Melbourne–Devonport sea model

The estimated regression results are presented in Table B2. The adjusted R² value of 0.95 (previously 0.95) suggests that the model is a good fit. It indicates that 95 per cent of the variation in motor vehicle passenger numbers over the period is explained by the variables included in the model (population, income, sea fare, air fare, the Gulf War, the Sydney–Devonport service dummy and increased ship capacity). Around 5 per cent of the traffic variation is therefore attributable to factors not specified in the model, such as:

- movements in A\$ exchange rates (affecting relative costs of Australian overseas travel and travel by foreign tourists to Australia)
- changes in community perceptions of Australian and overseas security risks
- expenditure on tourism promotion activities for Tasmania and other parts of Australia
- aspects of local and overseas economic conditions such as unemployment, interest rates and fuel prices.

All of the estimated coefficients are of the expected sign and are significant. The Gulf War dummy (1991–92) variable is significant at or about the 20 per cent level. This dummy variable has been retained as (*a priori*) it is important—sea passenger numbers fell during the first Gulf War—and including it does improve the model.

Table B2 Regression results for the Melbourne–Devonport sea model

| Variable | Estimated coefficient | T-Statistics |
|--|-----------------------|--------------|
| Y—Real Income | 2.38 | 2.34 |
| P—Sea Fare | -1.12 | -3.93 |
| Q—Full Economy Air Fare | 0.99 | 2.70 |
| Gulf War 1991–92 (DGW) | -0.21 | -1.64 |
| Introduction of the <i>Spirit of Tasmania III</i> 2001–02 on (DSP) | 0.43 | 4.76 |
| 2004–05 dummy (DSYD) | -0.45 | -3.72 |
| Intercept | -17.45 | -3.89 |
| Adjusted R ² | 0.95 | |

Source: BITRE analysis.

In terms of the total impact on the number of motor vehicle passenger movements, the most important variable is per capita real household income, with an estimated elasticity of 2.4 (previously 2.4). This means that a 1 per cent increase (decrease) in the level of per capita real household income will result in a 2.4 per cent increase (decrease) in the number of motor vehicle passenger movements.

The second most important variable is the sea fare (own-price), with an estimated elasticity of -1.12 (previously -1.07). The own-price elasticity indicates that a 1 per cent decrease (increase) in the price of sea travel will result in a 1.12 per cent increase (decrease) in the number of motor vehicle passenger movements.

The coefficient of the full economy air fare variable reported in the annual model in Table B2 is significant and of the expected sign. Full economy fares have been used because of the lack of discount fare data series (prior to October 1992). Full economy

fares have increased since budget airlines entered the Tasmanian market, rather than decreased. *A priori*, an increase in competition would be expected to reduce air fares, thereby increasing motor vehicle passenger numbers. While discount air fares have fallen substantially, the discount air fare series is generally not significant³¹ in explaining sea passenger movements.

The cross-price (air fare) elasticity is 0.99 (Table B2)—previously 0.96. This indicates a 1 per cent increase (decrease) in the full economy air fare will result in a 0.99 per cent increase (decrease) in the number of motor vehicle passenger movements travelling by sea on the Melbourne–Devonport route.³²

The estimated coefficient of the dummy variable DGW indicates that the Gulf War in 1991–92 adversely affected the number of motor vehicle passengers on the Melbourne–Devonport route.

The estimated coefficient of the dummy variable DSP indicates the increased ship capacity provided by TT-Line’s new ships positively affected the number of motor vehicle passengers on the Melbourne–Devonport route.

The dummy variable for the Sydney–Devonport service (DSYD) was significant and negative in sign, indicating that the service reduced Melbourne–Devonport passenger numbers.

The detailed results on the Melbourne–Devonport econometric model should be interpreted with some caution, as the analysis is constrained by data limitations and other factors. For example, the time series annual data cover a period of only 20 years, with the Scheme operating for just eight of these years. In addition, the data are annual rather than monthly or quarterly, and the sea fare and air fare data are based on a specific season and ticket category.

Despite these limitations, the model provides empirical support for the view that the Scheme has contributed to the number of motor vehicle passengers travelling by sea on the Melbourne–Devonport route since 1995–96.

31. As already noted, the discount air fare series is only available from October 1992. When this discount fare series was used the resulting air fare coefficient was not significant. This appears to reflect limitations in the fare data—the discount air fare series is volatile with large month to month variations, and may not capture the underlying relationships in an annual model. Consequently, the sea model reported here uses the full economy air fare series.

32. For 2003–04 an econometric air model was investigated to see if there was significant passenger switching between the two modes (BTRE 2006). The analysis concluded that air travellers as a group are insensitive to changes in the sea fares. Further information on the air model can be found in *BTRE Monitoring Report No. 8, 2003–04, Appendix C*.

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