

# **Maximum fares for metropolitan and outer metropolitan buses from January 2014**

Applies to contracted bus services in Sydney,  
Newcastle, Wollongong, Central Coast, Hunter  
and Blue Mountains

**Transport — Final Report**  
November 2013





Independent Pricing and Regulatory Tribunal

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# 1 Executive summary

The Independent Pricing and Regulatory Tribunal (IPART) is responsible for setting maximum fares for metropolitan and outer metropolitan bus services in NSW. This includes services provided by the Government (State Transit Authority (STA)) and private operators under contracts with Transport for NSW (TfNSW) in Sydney, Newcastle, the Central Coast, Wollongong, the Blue Mountains and Hunter regions. (A map of the regions covered is included in Appendix A.)

This final report and the accompanying determination set out annual average increases to maximum fares for these services over the next 4 years. The determination will apply from January 2014.

The remaining sections of this chapter provide an overview of the decisions set out in this report.

## 1.1 How maximum fares will change and why

Under the determination, metropolitan and outer metropolitan bus fares can increase by an average of 2.6% to 3.0% per year, including inflation.<sup>1</sup> Under these average fare changes passengers will fund around 40% of the benchmark efficient costs of providing bus services in each year of the determination period.<sup>2</sup> Taxpayers will fund around 60% of the efficient costs - 40% represents our estimate of the external benefits attributable to bus services and the remaining 20% is a subsidy for school services and concession tickets.

The main contributor to these fare increases is the cost of an ongoing government program of bus fleet expansion and replacement. The program aims to benefit passengers by providing more bus services and replacing aging buses with new, safer, air-conditioned, wheelchair accessible buses.<sup>3</sup>

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<sup>1</sup> Fare increases are 0.5% above the rate of inflation. These estimates are based on expected annual inflation of 2.1% for 2014 and 2.5% for 2015-2017.

<sup>2</sup> Our estimate of efficient costs is based on analysis of the 4 largest contract regions.

<sup>3</sup> Minister for Transport, *\$92 million for over 200 new buses and ten new routes*, media release, 7 August 2013.

Even after accounting for the increased costs associated with fleet expansion and replacement, fare increases for buses are only 0.5% above inflation per year, reflecting the improved cost control for bus services and appropriate levels of cost recovery from bus users.

Our final decisions are largely consistent with our draft decisions. However, we updated our estimates of the weighted average cost of capital (WACC) and inflation. These updates increased the annual price change slightly from 0.3% to 0.5% above inflation.

## 1.2 Overview of our decisions

Our approach to this determination is similar to our approach to making our 2010-2013 determination. However, we have decided to set an average maximum fare change rather than set individual ticket prices as we have done in the past. This is similar to our approach to setting fares for CityRail and Sydney Ferries last year.

Our determination sets out the maximum average fare change per year for a 4 year period from January 2014. We determined maximum fares for all 25 regions based on our analysis of the costs and external benefits of the 'benchmark operator' in the 4 largest regions.<sup>4</sup> We used a 'building block' approach to estimate efficient costs. We then considered the proportion of those costs that passengers should fund through fares. We determined this proportion (the 'revenue requirement') by considering the benefits of bus services to the wider community, including to those that do not use them (external benefits). We divided the revenue requirement by forecast patronage to give the required annual fare change.

Our approach yielded an increase in fares of 0.5% above inflation, which we applied to all 25 contract regions. Although a separate fare schedule applies to Newcastle, we have not considered the costs and benefits of providing Newcastle services separately and have applied the same percentage increase, based on our benchmark operator. Table 1.1 shows the summary of outcomes using our approach.

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<sup>4</sup> The 4 largest contract regions account for around 70% of all bus trips made by fare-paying passengers in the metropolitan and outer metropolitan areas.

**Table 1.1 Summary of outcomes using our approach (\$million, \$2013)**

	2014	2015	2016	2017
Total efficient costs of the benchmark operator	662	670	678	684
<i>Less the efficient cost of providing school services</i>	51	52	52	53
<i>Less non-fare revenue</i>	20	20	20	20
Net efficient costs of the benchmark operator	591	599	605	611
<i>Less value of external benefits for the benchmark operator</i>	233	236	239	242
<b>Revenue requirement</b>	<b>358</b>	<b>363</b>	<b>366</b>	<b>369</b>
<b>Annual real increase in maximum fares to meet the revenue requirement by 2017</b>	0.5%	0.5%	0.5%	0.5%
Government subsidy for concession fares	81	83	84	86
Total amount that will be funded by passengers	274	277	280	283
Share of costs that will be funded by passengers	41%	41%	41%	41%

**Note:** Columns may not add due to rounding.

### 1.3 How our determination affects what passengers pay

Under the determination, TfNSW can increase or decrease fares for individual bus tickets, so long as the overall change in fares is no greater than 0.5% per annum above the rate of inflation. This means that some passengers may have their bus fare increase by more than this amount and some by less. TfNSW may choose to charge less than the maximum determined by IPART in the early years of the determination period and more in the later years, so long as by the final year of the determination, fares have not increased by more than 2% plus inflation, compared to 2013 fares.<sup>5</sup>

### 1.4 How our determination affects the NSW Government

Under the maximum fares in our determination, the Government would contribute around 60% of the efficient costs of providing bus services. This is consistent with our estimate of the external benefits generated by the benchmark operator and the expected level of concession funding over the determination period.

The determination gives TfNSW the flexibility to change the price of individual bus tickets as it sees fit, provided the overall average change in prices across all

<sup>5</sup> The MyMulti DayPass, MyMulti2 and MyMulti3 tickets can be used to travel on buses, but they are primarily used on rail and ferry services. These fares are set under the CityRail determination rather than the bus determination. Fares for Pensioner Excursion Tickets (PETs), NightRide and other concession tickets that can be used on bus services are also not included as they are set by TfNSW.

tickets is not more than 0.5% per annum above the rate of inflation. We chose this approach for a number of reasons, including to facilitate the introduction of Opal – the Government’s electronic ticket for public transport services in the greater Sydney area. It is likely that the structure and level of some fares will need to be adjusted to optimise the efficiency of electronic ticketing and we do not wish to prevent this from happening.

## 1.5 Our review process

The process we followed in conducting this review included public consultation and detailed analysis. As part of this process, we:

- ▼ released an issues paper in May 2013, which outlined our proposed approach to the review, discussed the key issues to be considered and invited all interested parties to make a submission in response to this paper
- ▼ released a draft report and draft determination in September 2013 and invited all interested parties to make a submission in response to the report
- ▼ held a public hearing on 15 October 2013
- ▼ considered all submissions and stakeholder comments we received.

## 1.6 Structure of this report

This report explains our decisions and the reasons for them in detail. The report is structured as follows:

- ▼ Chapter 2 sets out the context and scope for the review
- ▼ Chapter 3 explains the approach we used, including our decision to set a 4 year determination, to focus on the benchmark operator and why we consider this is the best way to set maximum fares
- ▼ Chapter 4 explains our analysis of the efficient costs of providing bus services provided by the benchmark operator over the next 4 years
- ▼ Chapter 5 explains our estimate of the external benefits of bus services provided by the benchmark operator over the next 4 years
- ▼ Chapter 6 discusses our estimate of patronage growth for the benchmark operator over the next 4 years
- ▼ Chapter 7 outlines the fare change under our determination and discusses our decision to determine a maximum average fare change rather than to set a maximum fare for each individual ticket
- ▼ Chapter 8 discusses the impact that the fare change in our determination would have for the affordability of fares, the Government and the environment.

## 2 Context and scope for this review

This review focuses on maximum fares for metropolitan and outer metropolitan bus services in NSW. These services are delivered through contracts with a number of bus operators across 25 regions. However, the same fares apply to all regions (except in Newcastle, which have time based fares) in accordance with the Government's fare harmonisation policy.<sup>6</sup>

The sections below explain how the NSW Government contracts with different operators to provide bus services in different regions, how fares and services have changed in recent years and planned investments for the future.

It also explains the scope of our review including:

- ▼ the bus fares that are included under our determination
- ▼ why we have not reviewed train or ferry fares under this determination
- ▼ that fares cannot be used to provide incentives for operators to improve services because operators do not keep the fare revenue they collect.

### 2.1 How bus services are provided

Transport for NSW (TfNSW) is responsible for providing bus services in the Sydney metropolitan and outer metropolitan regions. These services are delivered through contracts with a number of bus operators. Operators hold a contract for a particular region or regions and are paid a monthly payment by the Government to provide bus services in that region. The payments are determined according to a formula that is designed to compensate operators for the costs incurred in fulfilling their service obligations under their contract. The operators must report on their service performance regularly to TfNSW.

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<sup>6</sup> This policy began in 2008 and fares were fully harmonised in 2010. See IPART, *Fact Sheet – Review of fares for Sydney metropolitan and outer-metropolitan buses and Newcastle bus and ferry services from 2 January 2008*, p 6, [http://www.ipart.nsw.gov.au/files/d918db82-756a-44ba-944c-9f2400b45d9f/Fact\\_sheet\\_-\\_final\\_decisions\\_-\\_2007\\_review\\_of\\_bus\\_fares\\_-\\_December\\_2007\\_-\\_website\\_version.pdf](http://www.ipart.nsw.gov.au/files/d918db82-756a-44ba-944c-9f2400b45d9f/Fact_sheet_-_final_decisions_-_2007_review_of_bus_fares_-_December_2007_-_website_version.pdf); Transport for NSW, *Acceptable MyZone tickets on Private Bus Services*, [http://www.131500.com.au/tickets/upload/docs/private\\_bus\\_operators.pdf](http://www.131500.com.au/tickets/upload/docs/private_bus_operators.pdf)

Farebox revenue collected by bus operators is effectively returned to TfNSW. As a result, the level and structure of fares has no impact on the financial viability or incentives faced by operators.<sup>7</sup>

This regime was introduced in 2005/06 as part of the former Government's bus reform program. Contracts were issued for 7 years and the first of those expired during 2012/13. The operators holding contracts include a number of private bus operators and one public operator, the State Transit Authority of NSW (STA).<sup>8</sup>

Appendix A shows a map of the metropolitan and outer metropolitan contract regions. Appendix C provides more background on the current contract regime.

On 1 May 2012, the Government announced that:

Private bus operators in Sydney will be required to competitively tender for existing metropolitan bus contracts to drive service improvements for customers... Ms Berejiklian said the introduction of tendering for private bus operator regions will be staged over two tender rounds over three years, commencing July 2012.<sup>9</sup>

The 2 tender rounds are now complete and 8 new contracts have been awarded to private operators of metropolitan bus regions. These contracts have been awarded for 5 years, with a 3-year right of renewal subject to performance. Four of the new contracts have already begun<sup>10</sup> and the other half will commence mid-2014.<sup>11</sup> For the remaining metropolitan and outer metropolitan regions contracts have been, or will be, negotiated with existing operators.<sup>12</sup>

Table 2.1 lists the bus operators and share of total boardings by region in 2012/13.

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<sup>7</sup> More information on bus contracts is available from Transport for NSW at <http://www.transport.nsw.gov.au/content/buses-and-coaches>, 24 September 2013.

<sup>8</sup> The STA has 3 businesses that provide bus services in different areas including Sydney Buses, Newcastle Buses and Ferries and Western Sydney Buses.

<sup>9</sup> NSW Minister for Transport, *New Bus Contracts to drive improvements for customers*, 1 May 2012.

<sup>10</sup> Ibid.

<sup>11</sup> NSW Minister for Transport, *More than 60 new buses and improved customer service with new bus contracts*, 29 August 2013.

<sup>12</sup> More information on bus contracts is available from Transport for NSW at <http://www.transport.nsw.gov.au/content/buses-and-coaches>, 24 September 2013.

**Table 2.1 Operator and share of boardings by region (2012/13)**

Metropolitan buses			Outer metropolitan buses		
Region	Operator	Share of boardings	Region	Operator	Share of boardings
1	Busways Blacktown	3.9%	1	Rover Motors	0.1%
2	Ingleburn Bus Services	1.2%	2	Hunter Valley Buses	0.3%
3	Transit (NSW) Liverpool	2.7%	3	Port Stephen Coaches	0.1%
4	Hillsbus Co.	6.2%	4	Hunter Valley Buses	0.3%
5	Punchbowl Bus Co.	1.1%	5	STA – Newcastle	2.2%
6	STA south (Sydney Buses)	21.1%	6	Busways Central Coast	1.6%
7	STA west (Sydney Buses)	11.2%	7	Red Bus Services	0.9%
8	STA north (Sydney Buses)	10.0%	8	Pearce Omnibus	0.2%
9	STA east (Sydney Buses)	27.6%	9	North Wollongong Area Management (Dions Buses)	0.3%
10 + 11	Transdev NSW	2.1%	10	Premier Illawarra	1.1%
12	Transdev NSW	0.7%			
13	Transdev NSW	2.6%			
14	Forest Coach Lines	1.2%			
15	Nevilles Bus Services	1.1%			
	All operators	92.8%		All operators	7.2%

**Source:** Information provided by TfNSW, August 2013.

## 2.2 Historical changes to fares and services

Our 2010-2013 determination allowed for maximum fares to increase by a weighted average of around 1.4% plus inflation each year.<sup>13</sup> However, since 2010, the majority of bus fares have not increased above inflation<sup>14</sup> and fares for longer distance journeys have fallen substantially.<sup>15</sup> For example, in 2010, it cost \$6.30 to travel more than 24 km; now it costs \$4.80.<sup>16</sup> The Government's view has been that public transport fares should increase in line with CPI until there are demonstrable improvements in customer service.<sup>17</sup>

Figure 2.1 shows the current cost of making a single bus journey in Sydney compared to other capital cities.<sup>18</sup>

<sup>13</sup> IPART, *Review of fares for metropolitan and outer metropolitan bus services from January 2010, Transport – Final Report, December 2009*, p 89.

<sup>14</sup> Transport for NSW, *Public transport fare rise half IPART's recommendation*, 15 December 2011, <http://www.transport.nsw.gov.au/media-releases/public-transport-fare-rise-half-iparts-recommendation>; Transport for NSW, *Fares to increase in line with CPI*, <http://www.transport.nsw.gov.au/media-releases/fares-increase-line-cpi#>, 18 December 2012.

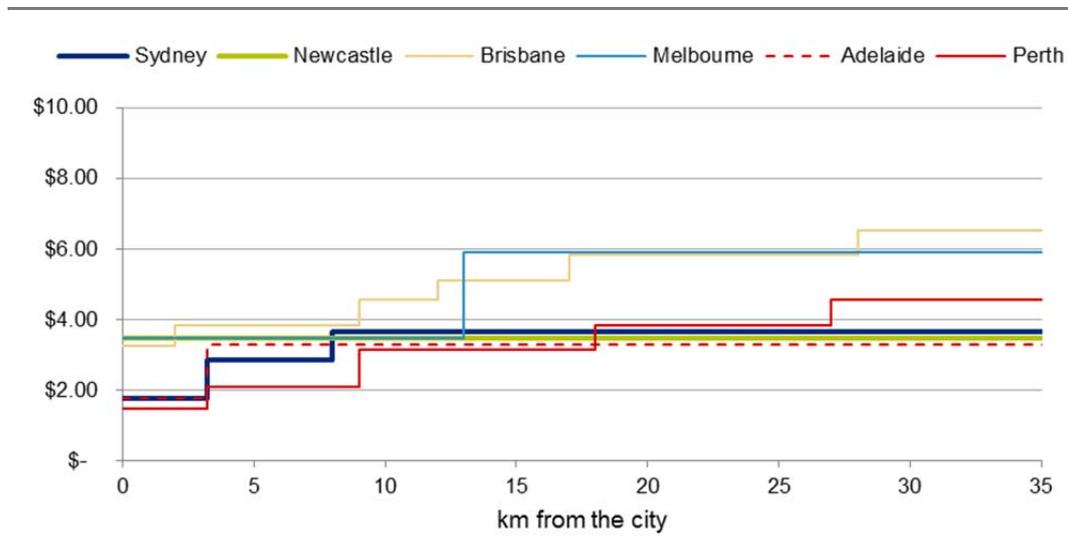
<sup>15</sup> IPART, *CityRail and Metropolitan and Outer Metropolitan Bus Services: Prices and Services Report 2010 – Final Report*, December 2010, p 8, [http://www.ipart.nsw.gov.au/files/645d4feb-d168-4645-a4ce-9f7200cd1417/Final\\_Report\\_-\\_CityRail\\_and\\_Metro\\_and\\_Outer\\_Metro\\_Bus\\_Services\\_-\\_Prices\\_and\\_Services\\_Report\\_-\\_December\\_2010.pdf](http://www.ipart.nsw.gov.au/files/645d4feb-d168-4645-a4ce-9f7200cd1417/Final_Report_-_CityRail_and_Metro_and_Outer_Metro_Bus_Services_-_Prices_and_Services_Report_-_December_2010.pdf).

<sup>16</sup> Transport for NSW, *Easier, simpler fares*, p 16, [https://www.google.com.au/url?sa=t&rc=1&q=&esrc=s&source=web&cd=3&ved=0CDgQFjAC&url=http%3A%2F%2Fwww.131500.com.au%2Ftickets%2Fupload%2Fdocs%2Fcomplete\\_myz\\_one\\_fare\\_guide.pdf%2Fat\\_download%2Ffile&ei=OHyBUtT9EsdigeNuYDwDQ&usq=AFQjCN EfyXqOjMgTGFps0mbzRvqaN-BfSg, TfNSW, All fares, http://www.131500.com.au/tickets/fares/](https://www.google.com.au/url?sa=t&rc=1&q=&esrc=s&source=web&cd=3&ved=0CDgQFjAC&url=http%3A%2F%2Fwww.131500.com.au%2Ftickets%2Fupload%2Fdocs%2Fcomplete_myz_one_fare_guide.pdf%2Fat_download%2Ffile&ei=OHyBUtT9EsdigeNuYDwDQ&usq=AFQjCN EfyXqOjMgTGFps0mbzRvqaN-BfSg, TfNSW, All fares, http://www.131500.com.au/tickets/fares/)

<sup>17</sup> NSW Minister for Transport, *Public transport fare rise half IPART's recommendation*, 15 December 2011; NSW Minister for Transport, *Fares to increase in line with CPI*, 18 December 2012.

<sup>18</sup> This is the price of a bus trip only. When a bus trip is combined with a train trip as part of the same journey, Sydney fares are relatively more expensive than those in other Australian cities.

**Figure 2.1 Comparison of the price of a bus trip by distance at 8 am (journey from city centre) by Australian cities (\$2013)**



**Note:** The most commonly used ticket for the given distance is used for this comparison (eg, Sydney single fares are based on the TravelTen ticket; in other cities the peak fare electronic tickets are used). In the case of a zonal fare structure, distance is estimated assuming travel from the CBD.

**Data source:** TfNSW, *All fares*, <http://www.131500.com.au/tickets/fares/>; Public Transport Victoria, *Metropolitan myki fares*, <http://ptv.vic.gov.au/tickets/metropolitan-myki-fares/>; Adelaide Metro, *Fares*, <http://www.adelaidemetro.com.au/Tickets/Fares>; Translink, *Current fares*, <http://translink.com.au/tickets-and-fares/fares/current-fares>; Transperth, *Transperth tickets and fares*, <http://www.transperth.wa.gov.au/TicketsandFares.aspx>

Since 2009/10, the number of bus services has increased substantially. Between 2009/10 and 2012/13, bus service kilometres grew by around 15% in metropolitan regions and 17% in outer metropolitan regions<sup>19</sup> as a result of:

- ▼ the introduction of integrated network plans, new growth buses, Metrobuses and free Shuttle bus services, increasing bus service kilometres by 8.7% in 2010/11 alone<sup>20</sup>
- ▼ additional bus services introduced and services extended in the growth areas of North West and South West Sydney<sup>21</sup>
- ▼ improvements to bus links to the employment centres of Parramatta, Liverpool, Macquarie Park, Western Sydney Employment area, North Sydney and the Sydney CBD.<sup>22</sup>

<sup>19</sup> Information provided to IPART by Transport NSW, August 2013.

<sup>20</sup> Kilometres travelled to provide bus timetable services. Excludes school services, dead running, charter and special event kilometres.

<sup>21</sup> Minister for Transport, *3000 Extra Public transport services a week for Sydney*, 20 November 2012.

<sup>22</sup> Most of this growth occurred outside the 4 largest contract regions. Between 2009/10 and 2012/13, service kilometres grew by around 9% in the 4 largest contract regions. A large proportion of this growth was in region 6, which encompasses the inner western suburbs of Sydney. IPART, *Metropolitan and Outer Metropolitan Bus Services: Prices and Services Report 2012*, December 2012, p 2.

The 2012/13 budget included government spending of \$127 million on new buses.<sup>23</sup> Real-time information for bus services has also been made available in a number of areas.<sup>24</sup>

Despite these programs, we received a number of comments from stakeholders suggesting that the bus services that are in place do not meet the needs of customers and/or that customers were not adequately consulted on service issues that are important to them when the contracts were developed.<sup>25</sup> Two of the submissions that discussed these issues focused on Newcastle buses. They stated that there continues to be poor patronage on Newcastle bus services as a result of poor service (including low frequency, graffiti and buses not running to timetable) and poorly designed routes.<sup>26</sup>

NCOSS commented more generally that there has been no opportunity for customer input into how performance and customer service are monitored.<sup>27</sup> NCOSS noted the Government's policy not to increase fares by more than CPI unless there were demonstrable improvements in service, but said it was difficult to understand whether services have actually improved and if they have, whether the improvements are meaningful to customers.<sup>28</sup>

### 2.2.1 Future investment in bus services

In 2011, the NSW Government released its NSW 2021 plan – a 10-year strategic business plan to guide its policy and budget decision making. The goals of the NSW 2021 include:

- ▼ **reducing travel times:** increase frequency of services on key corridors during peak and off-peak and reduce the difference between scheduled and actual public transport travel times
- ▼ **growing patronage on public transport by making it a more attractive choice:** increase the share of commuter trips made by public transport and consistently meet the target of 95% of Sydney buses run on time across the network
- ▼ **improving customer experience with transport services:** improve customer satisfaction and increase real time travel information to customers.<sup>29</sup>

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<sup>23</sup> NSW Government, *Budget Paper No. 3, 2012-13*, pp 9-4.

<sup>24</sup> <<http://www.131500.com.au/plan-your-trip/Info-on-the-go/apps>> accessed 13 November 2013.

<sup>25</sup> NCOSS comments at public hearing, 15 October 2013, Transcript p 26; Hunter Transport Improvement Association submission, October 2013; Rick Banyard submission, October 2013.

<sup>26</sup> Hunter Transport Improvement Association submission, October 2013; Rick Banyard submission, October 2013.

<sup>27</sup> Public Hearing, 15 October 2013, Transcript p 26.

<sup>28</sup> Ibid.

<sup>29</sup> NSW Government, *NSW 2021*, September 2011, pp 18-21.

In 2012, the Government released its *NSW Long Term Transport Master Plan* (the Master Plan), which sets directions for transport in NSW for the next 20 years. The initiatives may mean higher capital expenditure, but potentially also efficiency savings, a better service quality and increased patronage. The impact of the plans during the new determination period will depend on when and how they are implemented.

### Enhanced service coverage and frequency

The Master Plan includes a commitment to redesign the bus network to include more services to the North West and South West growth centres,<sup>30</sup> greater priority of bus services, expansion of Bus Rapid Transit systems on the busiest corridors, fleet upgrades and the roll-out of better real-time information for customers.<sup>31</sup>

Parts of the bus network will be redesigned to accommodate the new light rail routes. Further, the Government has announced changes to bus interchanges, more cross-city Metro-style routes, reconfigured bus stops and higher priority for buses on roads.<sup>32</sup>

Feasibility studies are also proposed for new bus interchanges in the CBD (at Wynyard and Town Hall) and, in the short-term, better kerbside management at major CBD interchanges.<sup>33</sup>

The Master Plan committed to the development of Regional Transport Plans across NSW that will develop bespoke transport solutions to better meet the needs of regional customers.<sup>34</sup>

### Electronic ticketing

The NSW Government is implementing electronic ticketing for Sydney's train, bus and ferry services. The Opal card was introduced at the end of 2012 and is being progressively rolled out to Sydney public transport services.<sup>35</sup> The main benefit to customers of electronic ticketing is to reduce queuing for tickets.<sup>36</sup>

<sup>30</sup> NSW Government, *NSW Long Term Transport Master Plan*, December 2012, p 206.

<sup>31</sup> *Ibid*, p 196.

<sup>32</sup> The 5.6km Inner West light rail extension, on track for completion in 2014, will extend light rail services from Lilyfield to Dulwich Hill. Light rail in the CBD and South East is proposed to run through the Sydney CBD to Randwick and Kingsford, with work expected to commence in 2014, and take 5 or 6 years to complete. NSW Government, *NSW Long Term Transport Master Plan*, December 2012, p 345. Premier and Minister for Transport, *Building for the future: light rail to reduce congestion and revitalise Sydney*, 13 December 2012.

<sup>33</sup> NSW Government, *NSW Long Term Transport Master Plan*, December 2012, pp 339 – 340.

<sup>34</sup> *ibid*, p 348.

<sup>35</sup> [Link to information about Opal](#), 24 September 2013.

<sup>36</sup> TfNSW, public hearing transcript, 15 October 2013, p 34.

The Opal card is currently available on ferry services and a limited number of train lines. The first trials on buses commenced in October 2013. It is currently expected that it will be available on all metropolitan and outer metropolitan bus services by the end of 2014.<sup>37</sup>

## **2.3 Scope of this review**

### **2.3.1 Bus fares included in our determination**

Table 2.2 shows the current bus fares in the metropolitan and outer metropolitan regions that are included in our determination.

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<sup>37</sup> [Link to information about Opal](#), 24 September 2013.

**Table 2.2 Current fare schedule (2013 prices)**

<b>Ticket type</b>				
<b>MyBus fares</b>	<b>Single paper</b>	<b>Single opal<sup>a</sup></b>	<b>TravelTen</b>	
MyBus1 (up to 3.2 km)	\$2.20	\$2.10	\$17.60	
MyBus2 (3.2 km – 8 km)	\$3.60	\$3.50	\$28.80	
MyBus3 (8+km)	\$4.60	\$4.50	\$36.80	
<b>Newcastle time-based</b>	<b>1 hour</b>	<b>4 hour</b>	<b>All day</b>	<b>TimeTen 1 hour</b>
	\$3.60	\$7.00	\$10.60	\$29.00
<b>Multi Modal</b>	<b>Weekly</b>	<b>Monthly</b>	<b>Quarterly</b>	<b>Annual</b>
MyMulti1 <sup>b</sup>	\$44.00	\$168.00	\$463.00	\$1,672.00
Orange TravelPass (Newcastle) <sup>c</sup>	\$38.00	-	\$416.00	\$1,513.00
<b>School pass</b>	<b>Term</b>			
	\$50.00			
<b>Other ticket types</b>	<b>Single</b>	<b>Return</b>		
Moore Park or Randwick Racecourse shuttle (special event ticket) <sup>d</sup>	\$3.50	\$6.00		
Moore Park Link <sup>e</sup>	\$3.50	\$6.00		
Bondi Link <sup>f</sup>	\$2.20	\$4.40		

<sup>a</sup> After 8 journeys made in a week, all journeys are free. <https://www.opal.com.au/en/fare-information/>

<sup>b</sup> For use across the entire bus network and up to 10 km on rail from the Sydney CBD. The MyMulti1 fare is set under the CityRail 2012 determination. However, we have taken MyMulti1 journeys into account in our price cap, because a significant number of bus journeys are made using this ticket type.

<sup>c</sup> Unlimited travel on STA bus services in Newcastle and unlimited travel on the Stockton Ferry <http://www.131500.com.au/tickets/buy/terms-and-conditions#newcastle-time-based-fares>

<sup>d</sup> For Event buses that operate during major sporting and music events at Moore Park or Randwick Racecourse. <http://www.131500.com.au/tickets/fares/moore-park-shuttle>

<sup>e</sup> Bus component only for a connecting bus service to the Moore Park precinct (which includes the Entertainment Quarter, Allianz Stadium, Sydney Cricket Ground and the Randwick Racecourse) from any train to Central Station. <http://www.131500.com.au/tickets/fares/link-tickets>.

<sup>f</sup> Bus component only for a connecting bus service to Bondi Beach from any train to Bondi Junction. <http://www.131500.com.au/tickets/fares/link-tickets>.

**Source:** IPART, Compliance Statement for CityRail, Sydney Ferries, Metro and Outer Metro Bus services from January 2013. [http://www.ipart.nsw.gov.au/files/e88bf9eb-c0f0-441f-8774-a12c00b9c05b/Compliance\\_Statement\\_for\\_CityRail\\_Sydney\\_Ferries\\_Metro\\_and\\_Outer\\_Metro\\_Bus\\_services\\_from\\_January\\_2013.pdf](http://www.ipart.nsw.gov.au/files/e88bf9eb-c0f0-441f-8774-a12c00b9c05b/Compliance_Statement_for_CityRail_Sydney_Ferries_Metro_and_Outer_Metro_Bus_services_from_January_2013.pdf)

Bus fares not considered in this review include:

- ▼ MyMulti DayPass, MyMulti2, MyMulti3 and Green TravelPass (Newcastle), which are primarily used for ferry and rail travel
- ▼ concession fares, including the pensioner excursion ticket (PET), which are a matter for Government policy
- ▼ other tickets, such as the Funday Sunday ticket, School Student Transport Scheme free pass, NightRide ticket and bus travel allowed as part of specific event tickets.

### 2.3.2 Why train and ferry fares have not been reviewed as part of this determination

The Opal fares are based on, but are not exactly the same as, the current MyZone fares (which, in some cases, are below the maximum fares determined by IPART). For many journeys, Opal users receive a discount compared to the price of existing paper tickets.

Several stakeholders considered that a single set of fares should apply across all modes of transport under the Opal. That is, for a given distance travelled, the fare would be the same regardless of whether the customer uses a bus, train or ferry or a combination of these modes.<sup>38</sup>

Action for Public Transport stated that Sydney's different fares for each mode is inconsistent with other states, where passengers buy a ticket from A to B and can board any mode of transport using that ticket.<sup>39</sup> Action for Public Transport noted that there is cross-subsidisation *within* a mode of transport (eg, passengers travelling on the well-patronised route to Bondi cross-subsidise passengers travelling from Warragamba Dam to Penrith), therefore cross-subsidies *between* modes would not be unfair.<sup>40</sup>

Mr Powell stated that passengers are inconvenienced when there is not a single route configured to take a passenger where they want to go – and so they should not be penalised further with higher fares for switching transport modes.<sup>41</sup>

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<sup>38</sup> Action for Public Transport submission to draft report, 25 October 2013, pp 2-3; David Powell submission to draft report, 25 October 2013, p 1; S Lovell submission to draft report, 25 October 2013, p 1.

<sup>39</sup> Action for Public Transport, submission to draft report, 25 October 2013, p 3.

<sup>40</sup> Action for Public Transport, public hearing transcript, 15 October 2013, p 31.

<sup>41</sup> Mr David Powell, submission to draft report, 25 October 2013, p 1.

Historically, different fares have applied to different modes of transport in Sydney and our powers to determine these fares come from different legislation depending on the mode of transport or contracting arrangements in place. For example, we determine rail and Stockton Ferry fares under section 11 of the IPART Act, Sydney Ferry fares under section 16AE of the Passenger Transport Act and bus fares under section 28J of the Passenger Transport Act. This legislation is currently being reviewed.<sup>42</sup> The discussion paper on the review of this legislation states that:

The current “objects” are narrowly-focused and specific to particular modes of transport. The Review proposes a new set of objectives that match the new vision for transport in NSW by emphasising outcomes for customers rather than the vehicles providing the service.

The Review also proposes to cover all passenger transport services with a single revised passenger transport act and regulation.

Both proposals will increase the ability of Government to deliver flexible and innovative transport solutions.<sup>43</sup>

As we explain further in Chapter 3, we have only considered the costs and benefits associated with **bus services** for this determination to set **bus fares** under section 28J of the Passenger Transport Act and section 11 of the IPART Act.<sup>44</sup> However, Chapter 5 explains that we think there is merit in considering the external benefits of public transport services as a whole, rather than each mode individually. As part of this process we may also consider whether there is merit in considering costs of public transport services as a whole, rather than mode by mode.

However, we note that in general, bus fares are the cheapest of all public transport fares. Using our current building block approach to setting fares, if we considered a single fare across all modes in future, it is likely that this fare would be more expensive than the existing bus fares to recover the higher costs of train and ferry services.

Alternatively, setting a single fare for all modes commensurate with the existing levels of bus fares would mean that TfNSW would recover less of the efficient costs from fares. Taxpayers would have to contribute a greater share of efficient costs than justified by the external benefits they receive from public transport.

<sup>42</sup> Transport for NSW, *NSW Passenger Transport Legislation Review*, 2 August 2013, <http://www.transport.nsw.gov.au/nsw-passenger-transport-legislation-review>, accessed 12 November 2013.

<sup>43</sup> Transport for NSW, *Review of NSW passenger transport legislation, Discussion Paper*, September 2012, p 3, <http://www.transport.nsw.gov.au/sites/default/files/b2b/publications/discussion-paper-review-of-nsw-passanger-transport-legislation.pdf>

<sup>44</sup> Although, some multi-modal fares (eg the Newcastle Orange TravelPass, which also allows travel on the Stockton ferry) are also set under section 28J and section 11 of the IPART Act.

### 2.3.3 Why our determination does not affect the incentives for operators to improve services

The Hunter Transport Improvement Association stated that Newcastle Buses is overly reliant on fare increases and until the possibility of fare increases is withdrawn, there is no incentive for Newcastle Buses to improve the level of its service.<sup>45</sup> Mr Banyard suggested that IPART should set key performance indicators that require operators to either grow their patronage or relinquish their contracts.<sup>46</sup>

Under the current bus contracts, operators do not receive the fares they collect (fares go to the Government to offset the cost of monthly contract payments to operators, which do not depend on patronage). This means that incentives to increase patronage come directly from the contracts themselves and are not affected by IPART's fare determination.

NCOSS suggested that there may be a role for IPART to increase the transparency around how customer service is measured.<sup>47</sup> Like other elements of the service contracts, TfNSW is responsible for the structure, incentives and performance requirements they contain. From 2013, new service contracts include additional KPIs compared with earlier contracts. These include measures of passenger crowding, information provision and the presentation of buses. The new contracts also include greater detail around KPIs for punctuality and handling of customer complaints.

IPART does not have a role in enforcing the contracts, but we are required to take service performance into account when determining maximum fares (see Appendix E for a summary of the KPIs reported by operators). We consider that it is important that TfNSW collects accurate information on how the different operators measure up against the KPIs in their contracts and analyses and publishes this information on a regular basis.

In past years, we have drawn upon the findings of annual surveys of public transport passengers to provide a more complete picture of customer satisfaction with bus services.<sup>48</sup> However, TfNSW has released the results of its 2012 and 2013 passenger surveys too late for any analysis to be included in this report. These surveys provide valuable information about customers' perceptions of the service and what service related factors they consider most important. Publication of this information on a regular and timely basis would increase transparency and accountability and would address some of the concerns raised with us in this review. Further, we recommend that TfNSW should consult passengers in its survey development.

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<sup>45</sup> Hunter Transport Improvement Association, submission to draft report, 25 October 2013, p 1.

<sup>46</sup> Mr R. Banyard submission to draft report, 25 October 2013, p 2.

<sup>47</sup> NCOSS, public hearing transcript, 15 October 2013, p 26.

<sup>48</sup> The 2012 passenger survey was undertaken by the Bureau of Transport Statistics. In 2013 TfNSW took on responsibility for the passenger survey.

## 3 Our approach to setting maximum fares

Our approach to determining bus fares is similar to the one we took in our 2010-2013 determination. It is also consistent with our approach to setting maximum fares for rail and ferry services. It takes account of all the matters we are required by legislation to consider in determining bus fares, as well as the contextual factors discussed in Chapter 2.

The sections below explain and set out our final decisions on our fare setting approach.

### 3.1 Final decisions on our fare setting approach

#### Final Decisions

- 1 Our fare-setting approach is to:
  - set a 4-year determination from 2014 to 2017
  - use a building block model to determine the efficient costs of providing bus services based on our benchmark operator
  - determine the passenger share of those costs after considering the external benefits generated by bus services based on our benchmark operator
  - decide how much fares should change over the next 4 years, having regard to the costs to be funded by passengers, expected patronage and the implications of fare changes for passengers, the Government and the environment
  - apply a maximum average price cap, rather than set the fares for individual ticket types.

### 3.2 Overview of our approach to setting maximum fares

We determined maximum fares so that passengers and taxpayers each pay a fair share of the efficient costs of providing bus services. We estimated the efficient costs and the external benefits of bus travel to calculate the amount of revenue that should be collected from fares – the ‘revenue requirement’. This recovers some of the costs of providing bus services, with the remaining costs paid for by taxpayers.

Our approach involved the following steps:

1. Estimate the efficient costs of providing bus services using a 'building block' model and focussing our analysis on the benchmark operator of the 4 largest regions, net of:
  - a) the costs of providing school student bus services in these regions
  - b) a portion of revenue earned in these regions through advertising, charter services, and other sources.
2. Subtract a government subsidy equal to the value of the external benefits generated by expected use of these services.
3. Taking into account expected changes in patronage; use a 'glide path' to calculate annual fare increases so that in 2017, which is the final year of our determination, the amount recovered from fares is equal to the revenue requirement.<sup>49</sup>

We then determined what annual change in maximum fares should apply after considering the implications of fare changes on passengers, the Government and the environment.

Rather than setting bus fares to reflect the costs and benefits of providing bus services, NCOSS considered that fares should be set to encourage patronage growth and a modal shift – that is, shifting people from private motor cars to public transport.<sup>50</sup>

As we discuss in more detail in Chapter 8, fare levels are only one factor in a person's decision to use public transport. Factors such as convenience, accessibility, frequency, reliability and comfort of service also influence this decision. These service levels are specified in Transport for NSW's (TfNSW) contracts with bus operators. As noted in Chapter 2, we have no role in setting or enforcing the service levels in the bus contracts. Furthermore, because bus operators do not keep the revenue generated from fares, we have no ability to influence the incentives for bus operators to increase patronage through the fares we set.

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<sup>49</sup> In each year prior to 2017, there is a small under recovery from fares.

<sup>50</sup> NCOSS, public hearing transcript, 15 October 2013, p 27.

### 3.2.1 The length of the determination period

Our determination is for a 4-year period, the same length as the current determination. A determination that runs for several years provides greater certainty to passengers about the maximum fares that may be charged compared with a shorter period (eg, an annual fare determination). It also provides greater certainty to TfNSW to plan and implement the Opal card.

### 3.2.2 Contract regions included in the building block analysis

Although there are 25 metropolitan and outer metropolitan contract regions, we focussed our cost and benefit analysis on our benchmark operator, the NSW government-owned State Transit Authority (STA), which is responsible for operating the 4 largest regions. These regions cover Sydney's eastern suburbs, northern beaches, inner west and lower northern suburbs. Together they account for around 70% of all bus trips made by fare-paying passengers (see Table 2.1).

In his submission, Mr Banyard stated that our benchmark operator may have a different level of operation compared to those in Newcastle and that it may not be appropriate to use the costs and benefits in those regions to determine fares for Newcastle.<sup>51</sup>

We acknowledge that there are substantial differences in the operating costs and conditions between regions. These differences arise from the number and proportion of full fare-paying and concession passengers, kilometres, terrain and traffic congestion among other factors. Typically, operators in those regions outside the 4 largest regions face higher costs, lower external benefits (due to lower congestion benefits) and lower patronage than the benchmark operator.<sup>52</sup>

If we determined maximum fares for Newcastle tickets based on the costs and benefits of bus travel in Newcastle, our recommended maximum fares would be higher. Whilst being more cost reflective, this may have the result of discouraging patronage further on Newcastle buses. It would also be inconsistent with our approach to determining maximum fares in other contract regions, which are based on the costs and benefits of the benchmark operator.

We consider that setting maximum fares for all regions based on the costs, external benefits and bus use for our benchmark operator results in most passengers making a fair contribution to costs.

<sup>51</sup> Mr R. Banyard submission to draft report, 24 October 2013, p 2.

<sup>52</sup> IPART, *Review of fares for metropolitan and outer metropolitan bus services from January 2010, Final Report*, December 2009, Appendix C, p 153.

### 3.2.3 Estimating the efficient costs of providing bus services

The benchmark operator (STA) is a government-owned entity, integrated within TfNSW. In July 2013, STA negotiated new contracts with TfNSW for the right to operate bus services in the 4 largest regions for a 5-year period. TfNSW advised us that the contracts were not opened up to a competitive tender, but that TfNSW negotiated a contract payment reduction with STA. TfNSW provided information on historical costs and the payments and service requirements under the contracts.

While the contract payments made by TfNSW to STA provide relevant information on the level of efficient costs, they do not cover all relevant bus-related costs as some bus-related costs are now incurred outside STA. Therefore, the contract payments were not sufficient to rely on in estimating efficient costs.

Since 2011/12, the establishment of TfNSW and subsequent reform of corporate and shared services resulted in a number of corporate functions being transferred from the benchmark operator to TfNSW. These include bus service planning, marketing, payroll, recruitment, workers compensation and ticketing. Further reform of non-service delivery functions including human resources, IT, finance, audit and risk was to take place from 2012/13.<sup>53</sup> These costs are no longer incurred by the operator and as such, are not reflected in contract payments. However, these costs are still relevant to the provision of bus services and in our view, should be included in our efficient cost estimate.

TfNSW did not have a detailed breakdown of its expenditure on these functions. As a result, we did not engage a consultant to conduct a review of the costs incurred by the benchmark operator or TfNSW. We decided to use the efficient operating cost estimate that was produced by our cost consultant, Indec Consulting, for our 2010-2013 determination. This estimate captures costs incurred by the benchmark operator, as well as the cost of bus-related functions that have recently been transferred to TfNSW.

We adjusted Indec's efficient cost estimate (which included all relevant functions) for inflation and to account for the increased service obligations in place under the benchmark operator's new contracts. We then kept it constant in real terms for the remainder of the determination period.

We estimated forecast capital costs based on historical capital expenditure or forecast capital expenditure where it was known.

We also considered the efficient costs of providing bus services that were incurred by Roads and Maritime Services (RMS). We used our 2010-2013 determination estimates of RMS-incurred operating costs in providing and maintaining bus priority infrastructure.

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<sup>53</sup> STA, *Annual Report 2011/12*, October 2012, p 3.

Lastly, we made adjustments for the efficient costs of providing bus travel for school students and for a portion of commercial revenue earned by the benchmark operator.

#### **3.2.4 Share of costs to be recovered from passengers**

We determined how much of the efficient costs passengers should contribute by considering the benefits of bus services to the wider community and deducting the value of these benefits from efficient costs.

Since 2008, we have engaged Sapere Research Group (formerly LECG) to estimate the external benefits associated with either rail, bus or ferry services as relevant at each fare review.

On further consideration, we decided that it would be more consistent to consider the external benefits of all modes of public transport simultaneously. This work will be undertaken separately to this review. In the meantime, we used the external benefit value from our 2010-2013 determination, updating it to take into account:

- ▼ changes in the number of full-fare, concession and student passengers
- ▼ the change in dollar value of the benefits using a weighted average of the Wage Price Index (WPI) (75%) and the Consumer Price Index (CPI) (25%).

#### **3.2.5 Patronage growth**

We estimated the number of passengers that will travel on buses over the determination period, as this is used to translate the revenue requirement into fares. We asked the Bureau of Transport Statistics (BTS) to provide a long-term forecast of bus patronage growth in the 4 largest regions. We considered the estimates provided by BTS as well as historical patronage growth to form an on-balance judgment about the expected change in patronage over the next 4 years.

#### **3.2.6 Deciding on the maximum average change in fares**

We considered the outcome of the building block analysis described above and decided on maximum fares that result in passengers and taxpayers each paying a fair share of the efficient costs. We considered the implications of fare changes for passengers, the Government and the environment.

We then set a maximum average price change, consistent with our fare determinations for rail and ferry services.

## 4 Efficient costs of providing bus services

As Chapter 3 explained, we used a building block approach to estimate the efficient costs of providing bus services for the benchmark operator. In our view, the relevant efficient costs are what a stand-alone benchmark operator would incur in providing bus services in the quantity and at the level of service specified in the service contract. These costs include operator-incurred costs, as well as costs relevant to the provision of bus services that are incurred by Roads and Maritime Services (RMS) and Transport for NSW (TfNSW). They also include a return on assets, regulatory depreciation and an allowance for taxation in line with our decision to base the rate of return on a post-tax WACC.

We estimated the efficient cost of providing bus services for school students. This cost was deducted from the overall cost estimate, along with a portion of commercial revenue earned by the benchmark operator.

The sections below provide an overview of our final decision on each efficient cost component and explain how we updated or calculated these costs.

### 4.1 Final decision on efficient costs

The efficient costs of providing bus services for the benchmark operator are as shown in Table 4.1.

**Table 4.1 Final decision on efficient costs of providing bus services for the benchmark operator (\$'000, \$2013/14)**

	2013/14	2014/15	2015/16	2016/17
Operating expenditure	538,236	538,236	538,236	538,236
Allowance for depreciation	66,687	72,563	78,246	83,219
Allowance for return on capital	57,883	60,449	62,533	63,206
Allowance for return on working capital	-1,145	-1,284	-1,096	-1,112
Allowance for tax	4,285	4,717	5,343	5,892
<b>Total efficient costs</b>	<b>665,947</b>	<b>674,681</b>	<b>683,262</b>	<b>689,441</b>

## 4.2 Efficient operating expenditure for the benchmark operator

For our 2010-2013 determination, we engaged Indec Consulting to conduct a total cost review of bus services for our benchmark operator. Indec recommended efficient levels of expenditure required to provide the quantity and quality of services specified in the contracts. We implemented a transition path to Indec's level of efficient costs, taking into account Indec's recommendations about the ability of the operator to make changes to its operating and management practices with the support of the Government.

Consistent with our draft report, for this determination, we:

- ▼ adopted Indec's recommended efficient cost estimate for 2013/14 and inflated the estimate by the expected change in the CPI over the determination period
- ▼ adjusted the efficient cost estimate to take into account differences in service requirements between what was considered in our 2010-2013 determination and what is required by the benchmark operator's new service contracts.

### 4.2.1 Using Indec's recommended efficient cost estimate

In our 2010-2013 determination, we used a transition path that resulted in costs being between the benchmark operator's actual costs at the time and Indec's efficient cost estimates. At the time, the benchmark operator's costs were significantly higher than Indec's recommended efficient costs. The transition path represented the annual savings that Indec considered were achievable, taking account of the ability of the operator to make changes to its operating and management practices with the support of the Government.

In July 2013, TfNSW negotiated a contract payment reduction with the benchmark operator. This indicated to us that annual savings have been made at a greater rate than suggested by our previous cost transition path. Therefore, we considered it appropriate to use Indec's efficient costs (adjusted by CPI to bring them into \$2013/14), rather than the existing transition path.

### 4.2.2 Increased service requirements

Indec assumed an average 1.5% per annum increase in bus kilometres over the 2010-2013 determination – or a cumulative increase of 7.8% from 2008/09 to 2013/14.<sup>54</sup>

Under the benchmark operator's new contracts, the service kilometres required in 2013/14 are around 2.4% higher than those implied by Indec's forecast.<sup>55</sup> These service kilometres are a condition of service that must be provided. Service kilometres are a major cost driver (ie, influencing fuel costs and repair and

<sup>54</sup> Information provided by Indec, 2009.

<sup>55</sup> Information provided by TfNSW, August 2013.

maintenance on vehicles). As such, we adjusted Indec's efficient cost estimate to reflect these additional service requirements.

We used the unit cost estimates developed by Indec and recalculated the efficient cost estimate based on a 2.4% increase to the 2013/14 service kilometres. This resulted in a 0.6% increase in the efficient operating cost allowance for 2013/14.

### 4.3 Roads and Maritime Services' operating expenditure

Consistent with our draft report, we included an annual allowance for RMS to provide and maintain bus priority measures. These measures include priority traffic signals and the Public Transport Information and Priority System (PTIPS) which aims to improve bus reliability by giving buses traffic signal priority. These measures provide a benefit to passengers through shorter journey times.

RMS did not separately identify operating expenditure on bus priority measures. As such, we used the allowance for RMS-incurred operating expenditure from our 2010-2013 determination, keeping it constant in real terms over the determination period.

### 4.4 Allowances for depreciation and return on assets

Various assets are used to provide bus services, including buses, depots and ticketing infrastructure, as well as bus lanes, priority traffic signals and bus bays along major corridors. We included an allowance for depreciation of these assets as a way of spreading the cost of the assets over their expected life.

We also included an allowance for a return on these assets to compensate the investor (in this case, TfNSW) for investing in the capital required to provide bus services. This recognises that the investor bears risks associated with providing bus services.

Consistent with our draft report, to make our final decision we:

- ▼ calculated an annual value (known as the Regulatory Asset Base (RAB)) for the total pool of assets used to provide bus services by the benchmark operator
- ▼ decided on the appropriate methodology for depreciating the RAB, including the length of the asset lives
- ▼ decided on an appropriate rate of return.

Each of these issues is discussed in more detail below.

#### 4.4.1 Value of assets used to provide bus services in the 4 largest regions

We updated the RAB to take into account actual capital expenditure, depreciation and disposals over the last 4 years. We forecast the RAB in each year of the upcoming determination period based on our forecast of capital expenditure for the operator and RMS over the determination period.

The value of assets used in providing bus services for the benchmark operator is shown in Table 4.2.

**Table 4.2 Final decision on the value of assets used in providing bus services for the benchmark operator (\$million, \$2013/14)**

	2013/14	2014/15	2015/16	2016/17
Regulatory asset base	1,044	1,100	1,166	1,175

#### Historical capital expenditure

The value of the capital expenditure to be incorporated into the RAB from 30 June 2013 is shown in Table 4.3.

**Table 4.3 Final decision on historical capital expenditure to be incorporated into the RAB (\$'000, \$nominal)**

	2009/10	2010/11	2011/12	2012/13
Buildings and improvements	55,180	5,951	8,484	10,596
Buses	71,506	156,237	37,508	49,739
Other assets	5,839	8,605	3,196	4,089
RMS bus priority measures	39,144	30,924	36,446	21,941
Inner West Busway	0	94,382	0	0
<b>Total</b>	<b>171,669</b>	<b>296,099</b>	<b>85,634</b>	<b>86,365</b>

#### Operator-incurred expenditure

We included all operator-incurred capital expenditure in the RAB. Around 75% of this expenditure was on buses. In 2010/11, the benchmark operator acquired a large number of growth buses, including for its cross-regional Metrobus routes.

#### RMS-incurred expenditure

We included all RMS-incurred expenditure in the RAB. This included 50% of the cost of duplicating the Iron Cove Bridge (inner west bus way).

#### Forecast capital expenditure

The value of the forecast capital expenditure to be incorporated when updating the RAB to the end of the determination period is shown in Table 4.4.

**Table 4.4 Final decision on forecast capital expenditure over the 2014 determination period (\$'000, \$2013/14)**

	2013/14	2014/15	2015/16	2016/17
Buildings and improvements	21,838	21,838	21,838	21,838
Buses (replacement + growth)	51,154	63,105	41,592	49,719
Other assets	5,820	5,820	5,820	5,820
RMS forecast capital expenditure on bus priority measures	17,942	19,512	20,940	21,358
Western Sydney bus depot (70% of total cost)	-	31,441	-	-
<b>Total</b>	<b>96,754</b>	<b>141,717</b>	<b>90,190</b>	<b>98,736</b>

We forecast capital expenditure in the following way:

- ▼ **Buildings and improvements and other assets:** We averaged the last 4 years of capital expenditure and kept it constant in real terms over the determination period.
- ▼ **Buses:** We used the actual number of replacement buses to be acquired under the benchmark operator's contracts and a 4-year average of the annual number of growth buses (excluding 2010/11), multiplied by the average panel purchase price for 2012/13 as advised by TfNSW.

#### Forecast expenditure on buses

In 2009, the Government commenced a 10-year program of delivering growth buses to metropolitan and outer metropolitan operators. Forecasting the number of growth buses is difficult as it is determined on an annual needs basis. Over the last 4 years, the benchmark operator acquired the following number of growth buses (Table 4.5).

**Table 4.5 Number of growth buses commissioned in the 4 largest contract regions**

	2009/10	2010/11	2011/12	2012/13
Growth buses	52	164	0	0

Source: Information provided by TfNSW.

A large number of buses was approved for the benchmark operator in the first 2 years of the Government's growth buses program, but none in the last 2 years. We considered that averaging the last 4 years to forecast the number of growth buses expected over the 2014 determination period would lead to an unrealistically high level of expenditure, given forecast patronage growth (see Chapter 6). In 2010/11, the benchmark operator acquired a large number of growth buses corresponding to the introduction of its cross-regional Metrobus routes.<sup>56</sup> This was a one-off event, so we excluded the 2010/11 bus purchases from our 4-year average.

Buses are manufactured and sold in a global market as so the price paid depends on a number of factors, including the global price of materials, supply and demand and the relative value of the Australian dollar. In 2012/13, TfNSW changed its policy on the way buses must be purchased by the benchmark operator. All new buses must be supplied, manufactured or purchased from TfNSW's Bus Procurement Panel for the supply and manufacture of buses. In 2012/13, the average bus purchase price (through the Bus Procurement Panel) was \$465,956 (\$2012/13).<sup>57</sup>

### **RMS forecast expenditure and major projects**

We included an allowance for RMS' forecast expenditure on bus priority infrastructure as advised by RMS. We also included a proportion of the cost of the new Western Sydney bus depot. We consider that the depot will provide benefits to bus passengers and so the cost should be taken into account when determining fares. TfNSW advised us that the depot will be used by a number of metropolitan bus operators, including the benchmark operator. We have apportioned the expenditure based on the share of total passenger boardings for the benchmark operator (approximately 70% as shown in Table 2.1).<sup>58</sup>

#### **4.4.2 Asset disposals and depreciation**

We made a final decision to use the straight line depreciation method and the asset lives shown in Table 4.6 to calculate the depreciation to be deducted when updating the RAB and the allowance for depreciation to be included in the operating expenditure.

<sup>56</sup> According to Sydney Buses' website: Sydney's Metrobus network comprises of 13 routes, providing high-frequency, high-capacity links between key employment and growth centres across Sydney. These extra Metrobus routes provide 400,000 additional bus passenger spaces a week. <[www.sydneybuses.info/metrobus/metrobus.htm](http://www.sydneybuses.info/metrobus/metrobus.htm)> accessed 5 September 2013.

<sup>57</sup> IPART calculations based on information provided by TfNSW, August 2013.

<sup>58</sup> In line with our usual treatment of major projects, we have included expenditure on the Western Sydney bus depot from 2014/15 (the expected year of completion). We consider that bus passengers will not benefit from the expenditure until the project is completed so it is not appropriate to incorporate the expenditure until that time. This is consistent with our treatment of the costs of the South West Rail Link in our 2013 CityRail determination.

**Table 4.6 Final decision on the expected economic lives and remaining lives of assets used to calculate depreciation (years)**

	Expected lives (years)	Remaining lives (years)
Buildings and improvements	22.0	25.5
Buses	17.5	12.4 <sup>a</sup>
Other assets	11.6	5.0
Inner west bus way	75.0	72.2
RMS bus priority measures	20.0	18.0
Western Sydney bus depot	40.0	n/a

<sup>a</sup> This is a weighted average of the remaining asset values for buses purchased before 2005 and buses purchased after 2005.

We used the straight line method to calculate the depreciation to be deducted when updating the RAB and the allowance for depreciation. We multiplied the annual value of each asset group by the depreciation rate using the appropriate asset lives. We made an adjustment for asset disposals in line with our standard approach.

### Expected asset lives

The service contracts stipulate that the average age of the operator's bus fleet must be no greater than 12 years and no individual bus should be older than 25 years. New buses are leased over a period of 15 years while the benchmark operator's estimate of the average expected life of a new bus is 20 years, compared to 25 years under private bus contracts. On balance, we consider that 17.5 years is a reasonable estimate of the expected life of a new bus and is consistent with what we used in our 2010 determination.

Data provided for this review includes building refurbishments, which have an average asset life of 5 to 10 years, in the 'buildings and improvements' category, whereas previously it was not included.<sup>59</sup> This reduces the average expected asset life from 40 years (used in our 2010 determination) to 22 years. We have adopted a 22 year expected asset life for buildings and improvements.

We consider that expenditure associated with the Western Sydney bus depot should be depreciated based on an asset life of 40 years consistent with the expected asset life of buildings.

### Remaining asset lives

We calculated the remaining asset lives of existing assets according to the proportion of the historical cost yet to be depreciated and on the economic lives for equivalent new assets.

<sup>59</sup> Information provided by TfNSW, July 2013.

#### 4.4.3 Allowance for a return on assets

The included a rate of return on the assets used to provide bus services to recognise the cost to the investor of the capital invested in those assets. We determined an appropriate rate of return and multiplied the value of assets in each year by this rate.

For the purpose of calculating the allowance for a return on assets, a real post-tax WACC of 5.3% is appropriate, based on the parameters in Table 4.7.

**Table 4.7 Final decision on weighted average cost of capital (WACC)**

Parameter	Short-term	Long-term
Nominal risk free rate	3.3%	4.9%
Inflation adjustment	2.5%	2.7%
Debt margin	2.2 to 3.0%	2.5%
Market risk premium	8.2 to 8.2%	5.5 to 6.5%
Debt to total assets (gearing)	60.0%	60%
Gamma	0.25	0.25
Equity beta	0.7 to 1.0	0.7 to 1.0
Cost of equity (nominal post-tax)	9.0 to 11.5%	8.8 to 11.4%
Cost of debt (nominal pre-tax)	5.5 to 6.3%	7.4 to 7.4%
WACC range (real pre-tax)	5.3 to 7.0%	6.1 to 7.5%
WACC midpoint (real pre-tax)	6.1%	6.8%
WACC range (real post-tax)	4.3 to 5.7%	5.1 to 6.2%
WACC midpoint (real post-tax)	5.0%	5.6%
<b>Decision</b>	<b>5.3%</b>	

**Note:** The 2010 determination did not use a real post-tax WACC. The pre-tax WACC has been converted into a real post-tax WACC for comparison only.

**Source:** IPART, Review of fares for metropolitan and outer metropolitan bus services from January 2010 - Final Report, December 2009; IPART modelling.

The WACC captures the required rate of return for a stand-alone benchmark operator. We calculated the WACC using IPART's standard parameter valuations and methodologies, as set out in the June 2013 Interim Methodology Paper.<sup>60</sup> The recommended WACC is the mid-point of:

- ▼ the upper bound of the range, calculated as the mid-point of the WACC range using long term averages of market data
- ▼ the lower bound of the range, calculated as the mid-point of the WACC range using short-term averages of market data.

<sup>60</sup> IPART, *WACC methodology – Interim Report*, June 2013.

We updated the parameters that determine the WACC between our draft and final report. Since the draft report, there has been an increase in the market-based parameters estimated using current market data. In particular, the:

- ▼ 40-day average of the risk-free rate increased from 3.0% to 3.3%
- ▼ 40-day average of Bloomberg's market risk premium increased from 7.9% to 8.2%.

This results in a slight increase in the WACC from 5.1% to 5.3%.

Our approach to calculating the WACC is explained in more detail in Appendix D.

### Working capital

The allowance for a return on working capital recognises that some businesses incur costs in funding the short-term capital required for the day-to-day activities of the business (such as accounts payable, inventories and accounts receivable). If the business' net working capital is positive, it has invested capital to facilitate its day-to-day activities and should earn a return on that capital. However, if the business' net working capital is negative, then its trade creditors are providing working capital to the business and it should earn a negative return to offset returns being earned on the capital provided by other parties.

Consistent with our past practice to calculating working capital, we used:

- ▼ Receivables = 20 days of required revenue (including revenue from fares and government payments).
- ▼ Inventory = 6 days of operating expenditure plus capital expenditure.
- ▼ Payables = 30 days of operating expenditure plus capital expenditure.

#### 4.4.4 Allowance for taxation

We included an allowance for tax costs in line with our move to a post-tax financial model. The tax expense has been calculated as follows:

- ▼ The tax asset base was set equal to the RAB for 2013/14.
- ▼ The tax asset base is updated by adding nominal capital expenditure and deducting nominal depreciation (based on the same depreciation rates as allowed in the regulated asset base) and nominal asset disposals.
- ▼ The tax deductible interest is calculated from the nominal cost of debt and applied to an amount of debt that reflects the level of gearing used in the WACC multiplied by the nominal RAB.
- ▼ No capital contributions are included and the value of franking credits (gamma) is set at 0.25.

## 4.5 Removing the efficient costs of providing school student travel

Under the SSTS, bus operators provide free services to students travelling to and from school. Students not eligible for a free SSTS pass may apply for a government-subsidised School Student Term Pass.<sup>61</sup> In 2012, the benchmark operator provided around 8.9 million journeys for school students, which was about 5.4% of all passenger journeys.

Consistent with our draft report, to ensure that fare-paying passengers do not have to pay for these free and subsidised services to students, we deducted the estimated efficient costs attributable to school student travel (Table 4.8) from the overall cost estimate.

**Table 4.8 Efficient cost of SSTS (\$million, \$2013)**

	2014	2015	2016	2017
Costs of providing school student travel	51	52	52	53

These costs include:

- ▼ efficient operating costs for:
  - **dedicated school services**, based on Indec's estimates for our 2010-2013 determination and increased by inflation
  - **non-dedicated services**, based on the average operating costs per boarding for passengers and the number of school student boardings on non-dedicated services
  - **RMS operating costs attributable to school student boardings**, based on the average RMS operating costs per boarding for passengers and the number of school student boardings
- ▼ efficient capital costs attributable to school student boardings, based on the proportion of total operating costs attributable to school student services, and using the same proportion of capital costs.

We applied the percentage increase in total costs to total student costs.

The total cost of providing services for school students has fallen slightly over the past 4 years, because our data shows that there were fewer school student boardings (11.2 million journeys in 2008/09 compared to 8.9 million journeys in 2012).

<sup>61</sup> For more information on SSTS and the School Student Term Pass see <http://www.transport.nsw.gov.au/ssts> and <http://www.transport.nsw.gov.au/content/school-student-term-bus-pass> accessed 12 November 2013.

#### 4.6 Adjusting costs to reflect other revenue earned by the benchmark operator

Consistent with our draft report, we subtracted 50% of the net revenue earned from advertising, charter services, and other sources/activities and the profit made from the disposal of assets. This revenue is unregulated income that is not determined by IPART.

We also subtracted all of the unregulated fare revenue (such as the portion of the ticket price for the Easter show), because it is largely intended to offset the costs of providing bus services (Table 4.9).

**Table 4.9 Non-fare revenue (\$'000, \$2013)**

	2014	2015	2016	2017
Charter revenue	3,759	3,759	3,759	3,759
Advertising revenue	8,520	8,520	8,520	8,520
Other commercial revenue	2,941	2,941	2,941	2,941
Unregulated fare revenue <sup>a</sup>	4,974	5,038	5,104	5,170
Profit on sale of assets	-365	-365	-365	-365
<b>Total</b>	<b>19,829</b>	<b>19,893</b>	<b>19,959</b>	<b>20,025</b>

<sup>a</sup> This has been estimated by multiplying the number of boardings taken on 'event tickets' by the average fare in each year.

We estimated non-fare revenue for the operator by taking the average of the last 4 years and maintaining this in real terms. Deducting some or all of this revenue from the total efficient costs provides an appropriate balance between passing the benefits of additional revenue onto customers (through lower prices) and providing the business with an incentive to pursue further opportunities.

## 5 External benefits of bus services

Once we calculated the efficient costs of providing bus services based on our benchmark operator, we estimated the value of external benefits generated by passengers using these services.

The external benefits are indirect benefits that accrue to the wider community as a result of the use of that service (as opposed to the internal benefits, which accrue to the individuals who use the service). The external benefits of public transport services may include reduced congestion from having fewer cars on the road, reduced costs of traffic accidents and reduced air pollution.

We consider that the external benefits generated by public transport services (including bus services) justify government subsidisation of the fares for these services. We also consider that the level of the government subsidy should be linked to the value of the external benefits.

This chapter discusses what the external benefits of bus services are and why they justify government subsidy. It explains our decision on the value of external benefits that we have used for this review and our plan to undertake a broader review of external benefits across all public transport modes.

### 5.1 Final decision on external benefits

Our estimate of the external benefits of bus services for the benchmark operator is set out in Table 5.1.

**Table 5.1 IPART estimated value of external benefits (\$million, \$2013)**

	2014	2015	2016	2017
Total external benefits	233	236	239	242

Consistent with our draft decision, our final decision is based on the estimated value of external benefits that we used in our 2010-2013 determination.

Since 2008, we have engaged Sapere Research Group (formerly LECG) to estimate the external benefits associated with using rail, bus and ferries services individually at each fare review.

On further consideration, we have decided that it would be more consistent to consider the external benefits of all modes of public transport simultaneously. This work will be undertaken in a separate review. In the meantime, we have adopted the external benefit value from our 2010-2013 determination, updating it to take into account:

- ▼ changes in the number of full-fare, concession-fare and student passengers
- ▼ the change in dollar value of the benefits using a weighted average of the Wage Price Index (WPI) (75%) and the Consumer Price Index (CPI) (25%).

## 5.2 The external benefits of bus services and why they justify government subsidisation

It is relatively easy to identify the direct benefits that passengers receive from public transport services. For example, access to their place of work, essential services and shopping and leisure facilities. However, the external benefits of public transport services – those that accrue to the wider community – can be difficult to quantify.

Our previous review of bus fares found that the major external benefits generated by bus services fall into 2 categories:

- ▼ reduced (or avoided) road congestion, and
- ▼ reduced (or avoided) general air pollution and greenhouse gas emissions.<sup>62</sup>

The external benefits of bus services are the same as the external costs associated with car use. Box 5.1 explains the relationship between external benefits and subsidisation of public transport fares in more detail.

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<sup>62</sup> Other potential external benefits, including avoided road accidents and social and agglomeration benefits were considered but were not directly quantified. See IPART, *Review of fares for metropolitan and outer metropolitan bus services from 2010 - Final Report*, December 2009, pp 75-88.

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### **Box 5.1 The external benefits of public transport services and why they justify government subsidisation of fares**

When people make decisions on how to travel, they consider the costs and benefits to themselves – they will travel by bus when the costs and benefits of bus travel mean it is the best option for them. People do not usually take into account the costs and benefits to other people that are created by their decision. The costs and benefits that other people experience as a result of someone's decision on how to travel are called external costs and benefits because they are external to the decision maker.

The external benefits of bus use result from people avoiding the external costs associated with car travel. There are no or negligible external benefits from people catching a bus if they chose to catch the bus instead of walking, cycling or catching the train, because unlike car travel, these forms of transport impose no or negligible costs on other people.

To get people to take into account the external costs and benefits of their decisions, the relative prices of bus and car travel can be altered to include the value of the external cost. This can either be done by increasing the cost of car travel or by reducing the cost of public transport.

If there was a system of road use pricing that made the cost of car travel equal to both the internal and external costs it imposes, then it would not be necessary take these costs into account in setting bus fares. However, without such a system, government subsidisation of buses (and other public transport services) is the next-best approach to encourage optimal choices between modes of transport.

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### **5.3 The external benefits we included in our 2010-2013 determination**

For our 2010-2013 determination, LECG (now Sapere) estimated the value of the external benefits of providing bus services for our benchmark operator (for the 4 largest contract regions). This included:

- ▼ using the Bureau of Transport Statistics' (BTS) (formerly the Transport Data Centre) Sydney Strategic Travel model<sup>63</sup> (STM) to estimate the number of people who would have driven had they not caught the bus
- ▼ quantifying the external costs avoided when people travel by bus instead of car (through lower congestion, pollution and external accident costs)
- ▼ adjusting this benefit for the road charges which are already levied upon drivers (and thus offset any external costs of driving).

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<sup>63</sup> The Sydney Strategic Travel Model (STM) was developed by the Bureau of Transport Statistics. It projects travel patterns in the Greater Metropolitan Area of Sydney under different land use, transport and pricing scenarios.

LECG (Sapere) estimated the net external benefits of bus services set out in Table 5.2. The sections below provide a summary of each component. LECG (Sapere)'s report is available on our website.<sup>64</sup>

**Table 5.2 2010-2013 external benefits of bus services (\$2009/10)**

Source of benefit	Adult	Concession/pensioner
Avoided road congestion costs	\$1.74	\$0.00
Reduced air pollution costs	\$0.39	\$0.39
Avoided road accidents costs	\$0.00	\$0.00
Reduced fuel excise & parking levy	-\$0.13	-\$0.13
<b>Total external benefits</b>	<b>\$2.00</b>	<b>\$0.26</b>

Source: IPART, *Review of fares for metropolitan and outer metropolitan bus services from January 2010 – Final Report*, December 2009, p 78.

### 5.3.1 Avoided road congestion costs

Bus services make it possible for many people in the greater Sydney area to travel by public transport rather than use their car. This reduces traffic congestion and decreases the travel time of all road users.

LECG (Sapere) asked BTS to model what would happen if the existing bus services were unavailable or significantly more expensive. BTS modelled how many extra people would travel by car and train under these circumstances and the length of their trips. LECG (Sapere) found that each bus journey saved around 5.4 kilometres of driving.<sup>65</sup>

### 5.3.2 Reduced air pollution costs

When fuel is burned to power motorised vehicles (including buses), it produces harmful pollutants – fine particulates, volatile organic compounds and nitrous oxides – which damage public health. It also releases greenhouse gases into the atmosphere, which contribute to climate change.

The quantity of harmful pollutants depends on the type and amount of fuel burned. LECG (Sapere) quantified the reduction in air and greenhouse gas pollution by taking the following into account:

- ▼ most buses run on diesel and most cars run on unleaded petrol
- ▼ buses generally use more fuel than cars and diesel is more polluting than petrol
- ▼ the average number of people who catch buses is greater than a typical car.

<sup>64</sup> LECG, *Value of Sydney bus externalities and optimal Government subsidy - Final Report*, September 2009.

<sup>65</sup> *ibid*, p 17.

### 5.3.3 Avoided road accident costs

Statistics on transport-related deaths show that rail and bus are the safest forms of land transport in Australia<sup>66</sup> – eg, bus travel results in significantly fewer deaths than car travel.<sup>67</sup>

LECG (Sapere) found that motorists already on the road do not experience any increased risk of accidents, because the extra congestion may make it easier to avoid accidents and reduces the severity of the accidents that do occur. In other words, the increased risk of accidents from travelling by car instead of bus is borne by the individual, and the road network overall is made safer from a reduction in the average speed.

### 5.3.4 Reduced fuel excise and parking levy

If the Government levied road charges equal to the external costs of car travel on drivers there would be no justification for subsidising bus services. Governments already do this to a degree by levying charges on parking spaces and an excise on fuel. These charges raise the costs of a car trip and expose the driver to some of the external costs of driving. LECG (Sapere) adjusted its estimates to take this into account.

## 5.4 Why we have decided to review our approach to externalities

In 2008, we developed our methodology for determining the external benefits for all of our subsequent public transport fare reviews. Since then, the methodology has undergone a number of refinements. For example, in 2012, as part of the review of CityRail fares, we updated the amount of pollution per litre of fuel consumed and included road tolls as an offsetting charge.<sup>68</sup> In 2011, BTS revised the STM, which improved the way non-work trips and congestion effects were modelled.

As part of our review of Sydney Ferries' fares, we commissioned an independent expert review of Sapere's methodology and inputs. This review was undertaken by Professor Henry Ergas and Dr Mark Harrison. We also received a response from Sapere. Both of these documents are available on our website.<sup>69</sup>

<sup>66</sup> Australian Transport Safety Bureau, *Discussion Paper – Cross modal safety comparisons*, 1 January 2005, pp 1-2.

<sup>67</sup> *Ibid*, p 3.

<sup>68</sup> IPART, *Review of maximum fares for CityRail services from January 2013 - Final Report*, November 2012, pp 43-45.

<sup>69</sup> [http://www.ipart.nsw.gov.au/Home/Industries/Transport/Reviews/Sydney\\_Ferries/Review\\_of\\_fares\\_for\\_Sydney\\_Ferries\\_from\\_January\\_2013](http://www.ipart.nsw.gov.au/Home/Industries/Transport/Reviews/Sydney_Ferries/Review_of_fares_for_Sydney_Ferries_from_January_2013), accessed 12 November 2013.

The independent review suggested some adjustments to the methodology, but considered these would have no material effect on Sapere's overall conclusion on the external benefits of Sydney Ferries' services.

We consider that refinements to our methodology are appropriate as we want to use the best estimate of external benefits in our reviews. However, we note that to date, these refinements have led to slightly different approaches being used over time for each public transport review.

In light of these factors, we decided to consider the external benefits of all modes of public transport simultaneously. We propose to undertake a separate, comprehensive review of the external benefits that we will consider in our future transport determinations. This is consistent with our approach to reviewing other inputs, such as the weighted average cost of capital and financeability arrangements, which apply across multiple pricing determinations.

In general, stakeholders were supportive of our proposal to conduct a separate external benefits review. Action for Public Transport expressed support for a review that recognises the integration between transport modes.<sup>70</sup> NCOSS supported our proposal and suggested that our current approach overlooks some of the positive benefits of public transport.<sup>71</sup>

Conducting a separate review of external benefits will allow us to reconsider our methodology and inputs, including these issues raised by stakeholders and will give stakeholders the opportunity to engage and be consulted on these issues.

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<sup>70</sup> Action for Public Transport, submission to draft report, 24 October 2013, p 3.

<sup>71</sup> NCOSS, public hearing transcript, 15 October 2013, p 27.

## 6 Forecast patronage growth

The next step in our approach was to estimate how many passengers we expect will use bus services over the 2014 determination period. This was used to determine the average fare change, which is calculated by dividing the revenue requirement (based on the costs and benefits in Chapters 4 and 5) by the number of tickets sold.

To obtain an estimate of bus patronage growth we considered long-term average growth forecasts produced for us by the Bureau of Transport Statistics (BTS). We also considered historical patronage growth, particularly growth in recent years, and other relevant information including issues raised in submissions.

This chapter explains our final decision on patronage growth and how we arrived at that decision.

### 6.1 Final decision on patronage growth

We adopted a patronage growth estimate of 0.8% per year over the determination period.

Consistent with our draft report, our final decision is based on a combination of long-term patronage growth forecast of 1% by BTS (Table 6.1) and historical patronage of zero over the past 10 years (Figure 6.1). This was an on-balance decision, reflecting the difficulty of forecasting future patronage growth. In particular, there is uncertainty about the patronage growth that will result from the introduction of Opal and new investments in buses and light rail. After considering all the available information we decided to adopt an estimate of patronage growth that is at the upper end of the range of estimates.

## 6.2 Bureau of Transport Statistics forecast patronage

BTS publishes patronage forecasts for different modes of transport across the Sydney Statistical Division. Its most recent forecast is for bus trips (average weekday) to rise by an average of 1% per year between 2006 and 2036. This is based on expected changes in service frequency, population growth and employment growth over this time.<sup>72</sup>

We asked BTS to model the equivalent patronage growth for the 4 largest contract regions. The estimates are drawn from the BTS Sydney Strategic Travel Model (STM), which:

- ▼ is set up on a 5-yearly basis (2006, 2011, 2016, 2021) – BTS has used the information for these years to interpolate patronage growth for the intervening years
- ▼ is based on current predictions regarding new service improvements (including new roads) and forecasts of population changes and employment growth
- ▼ assumes relative fares do not change (bus, train, ferry fares rise in line with CPI).

The STM estimates of growth are relatively high in the next 5 years, after which they reduce to around half of the initial rate. BTS has advised that this is a result of the impact of employment and population growth forecasts.

BTS provided the estimates set out in Table 6.1.

**Table 6.1** BTS forecast average annual growth in boardings from the Sydney Strategic Travel Model (% per annum)

	2011-2016	2016-2021	2011-2021	2011-2021 (existing network)
Region 6 – inner west	2.1	0.6	1.4	1.0
Region 7 – lower north	1.0	0.8	0.9	1.2
Region 8 – northern beaches	0.6	0.4	0.5	0.7
Region 9 – eastern suburbs	2.1	0.7	1.4	1.1
<b>Total 4 largest regions</b>	<b>1.6</b>	<b>0.7</b>	<b>1.1</b>	<b>1.0</b>
<i>For comparison:</i>				
<i>Rest of Sydney metro area (total)</i>	3.2	1.5	2.4	1.6
<i>Total Sydney metro area</i>	2.5	1.1	1.8	1.3

**Note:** Except for the final (existing network) scenario all runs include proposed service changes. The runs for 2016 and 2021 include the inner west light rail extension from Lilyfield to Dulwich Hill. The 2021 runs do not include north-west rail link or CBD/eastern suburbs light rail.

**Source:** BTS custom model run.

<sup>72</sup> BTS, *TransFigures – Travel forecasts 2006-2036*, February 2012, p 4.

Actual patronage growth between 2010/11 and 2012/13 has been around half of the 1.6% annual growth BTS has modelled for the 2011–2016 period,<sup>73</sup> suggesting that the forecast for 2011–2016 may be a little high. This might be due to short-term economic conditions that are not captured in the BTS model. However, as BTS predicts slower growth from 2016 (around 0.7% per annum), we consider that patronage growth over the next 10 years is likely to be below 1% a year on average.

### 6.2.1 Service changes included in the estimates

We asked BTS to provide an estimate of 2021 patronage based on the existing network for comparison, as we expect the inner west light rail extension (due for completion next year) to have an impact on patronage in the inner west STA region.

BTS did not model other major changes that are part of the Government's longer term strategy (see Chapter 2), because the details of these changes are not finalised (eg, patronage impact depends on delivery date, location of stops and service frequency).

The modelling does not estimate any increase in patronage as a result of implementation of the Opal for buses.

### 6.2.2 Impact of economic conditions on patronage in the short-term

BTS advises that in the short-term, patronage growth is strongly linked to employment conditions in the Sydney CBD and argues that a short-term forecast (3-5 years) should take this cyclicity into account. Our view is that forecasts based on longer-term estimates of patronage growth that do not incorporate economic cycles are more appropriate for our purposes.<sup>74</sup>

Short-term forecasts that factor in the economic cycle are likely to lead to fares that fluctuate depending on the economic cycle. We do not consider this to be a desirable outcome. Due to the difficulties involved in forecasting employment conditions we are also not convinced that taking a short-term approach, which uses expected employment conditions over the determination period, would improve the accuracy of the patronage forecasts. A longer term approach is also consistent with the approach taken in the CityRail determination.<sup>75</sup>

<sup>73</sup> We estimate patronage growth of 0.8% over this time.

<sup>74</sup> The STM includes longer term employment and population growth so using a longer term forecast does include an employment effect, it just does not capture any cyclicity in employment.

<sup>75</sup> CityRail patronage is also strongly linked to employment conditions in the CBD.

However, we note that the 2013/14 NSW budget papers estimate employment growth in NSW to be around trend for the next 2 years.<sup>76</sup>

### 6.3 Historical patronage growth

In our 2010-2013 determination, we adopted patronage growth of 0.8% per annum. This was the mid-range estimate provided by the Transport Data Centre (now the Bureau of Transport Statistics).<sup>77</sup> At the time we noted that this rate was slightly below the long-term trend in actual patronage growth of 1% per annum. However, actual patronage growth since the 2010-2013 determination has been significantly lower than 1% per annum.

In 2009/10, the number of fare paying passengers fell by around 2.1% for the benchmark operator (Table 6.2). Patronage recovered slowly in the next 3 years, but in 2012/13, it was still 1.9% lower than the 2008/09 level. TfNSW advised that the downturn in patronage was a result of the global financial crisis and its effect on employment, particularly in the CBD.<sup>78</sup> The 4 largest regions service the central areas of Sydney and account for most of the key CBD-focussed routes.

**Table 6.2 Patronage growth 2008/09 to 2011/12 (% annual change in fare paying passengers)**

	2009/10	2010/11	2011/12	2012/13	Cumulative change
Metropolitan regions 6-9	-2.1	0.1	0.3	-0.1	-1.9
All other metropolitan regions	1.9	9.3	9.3	2.8	16.6
Outer metropolitan	-4.4	3.4	2.8	-1.0	0.7
All 25 regions	-2.9	2.1	2.3	0.5	2.0

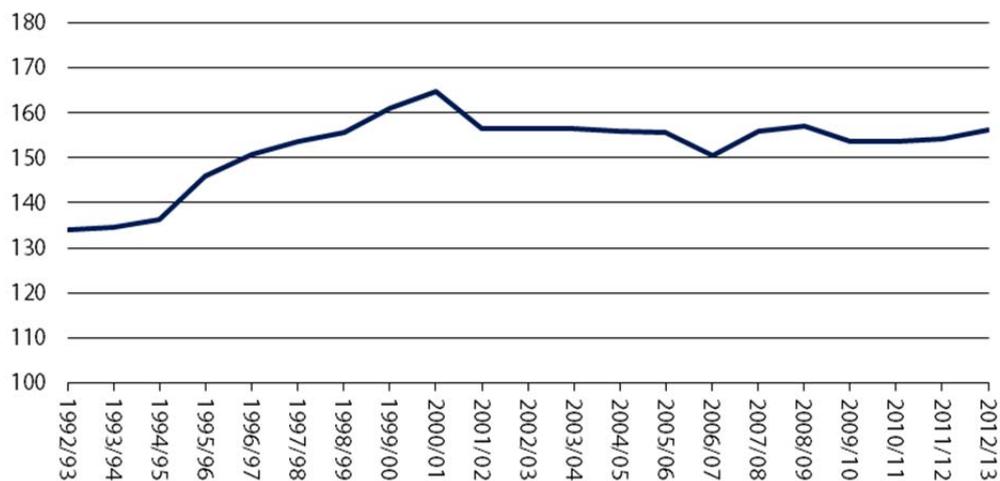
**Source:** IPART calculations based on TfNSW information.

Taking a long-term view, patronage has not grown at all over the past 10 years, according to boardings data provided by the operator. Over the past 20 years, it has grown by an average of 0.8% per year (Figure 6.1).

<sup>76</sup> NSW Treasury, *Budget Statement 2013/14*, pp 2-8.

<sup>77</sup> The Transport Data Centre provided 3 estimates based on different short term employment growth scenarios for the CBD.

<sup>78</sup> IPART, *CityRail and Metropolitan and Outer Metropolitan Bus Services: Prices and Services Report 2011 - Final Report*, December 2011, p 17.

**Figure 6.1 Boardings per year in the 4 largest contract regions (millions)**

**Data source:** Boardings excluding SSTS passengers provided by TfNSW.

#### 6.4 Other relevant factors

We also considered how forecast population growth, bus service changes and performance, fare increases, petrol prices and road congestion may affect bus patronage. In addition, we received stakeholder submissions about what factors they considered most relevant. The comments included:

- ▼ quality and quantity of service<sup>79</sup>
- ▼ demographic change – particularly ageing population, potentially increasing off-peak use, and trends among young people to use private cars less<sup>80</sup>
- ▼ changes to policies on land use, planning and resulting changes in density<sup>81</sup>
- ▼ policies to encourage mode shift away from private cars.<sup>82</sup>

<sup>79</sup> Action for Public Transport submission to issues paper, 23 June 2013, p 8; Save our Rail NSW Inc. submission to issues paper, 17 June 2013, p 8; R. Banyard submission to issues paper, 10 June 2013, p 7.

<sup>80</sup> Action for Public Transport, submission to issues paper, 23 June 2013, pp 8-9; R. Banyard, submission to issues paper, 10 June 2013, p 7.

<sup>81</sup> Action for Public Transport submission to issues paper, 23 June 2013, pp 8-9.

<sup>82</sup> Ibid; NCOSS, public hearing transcript, p 27.

The BTS estimates are forward looking and take many of these factors into account. The BTS continually updates the model for changes to population, demographics and employment forecasts. The model is broken down into travel zones, and as a result has the capacity to consider the impact of local issues and traffic congestion. It also considers changes in relative cost between different modes of transport (including car travel).

Other factors, such as the impact of policies to encourage mode shift are difficult to predict. These policies would tend to raise the level of patronage growth compared with what would occur if those policies were not in place. However, quantifying their impact is very difficult.

## 7 Maximum average change in fares

Once we determined the efficient costs, external benefits and expected number of passengers over the 2014 determination period, we decided on the appropriate share of costs to be paid for by passengers through fares and translated that into annual fare changes. We then considered whether to determine maximum fares for individual tickets or to set a maximum average fare change.

Consistent with our 2013 CityRail and Sydney Ferries determinations, we decided that we will not set maximum fares for individual tickets, but will allow Transport for NSW (TfNSW) to set the individual fares, subject to a maximum average price cap (weighted by ticket sales).

The sections below explain our final decisions on the average fare change and how it will apply.

### Final decision

- 2 The average change in maximum fares over the 2014 determination period is 0.5% per annum above the rate of inflation (weighted by ticket sales) with no limits on the change in individual fares.
- 3 Fares can be increased more than once a year provided the average fare increase does not exceed the annual weighted average price cap.

Our determination allows TfNSW to set the fare for each individual ticket so that the average fare increase is no more than 0.5% each year plus an adjustment for inflation.<sup>83</sup> It can increase some fares by more than this amount, provided that these increases are offset by changes in other fares that are lower than the average. TfNSW may choose to charge at or below our maximum increase in every year of the determination period. It may increase fares by less than the allowed average in the early years of the determination period and more in the later years, so long as by the final year of the determination 2017, fares have not increased by more than 2% above inflation, compared to 2013 fares.

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<sup>83</sup> Expected to be around 2.5% per annum. Fares are also subject to rounding.

Our determination provides TfNSW with the flexibility to restructure fares and adjust the price of individual tickets to facilitate the introduction of the Opal card, without limiting its ability to recover the passengers' share of revenue allowed under our determination. TfNSW will be able to make decisions on the number of fares offered, any discounts, how the level of electronic fares compare to paper fares and policies for concessions and seniors.

## 7.1 Annual fare changes

We estimated the revenue required from fares based on our estimate of efficient costs, less the cost of providing the school student travel, a share of non-fare revenue (see Chapter 4) and our estimate of external benefits (see Chapter 5).

Taking into account the expected changes in patronage (see Chapter 6), we used a 'glide path' approach to calculate annual fare increases so that in 2017, which is the last year of the determination, the amount recovered in fares is equal to the revenue requirement.<sup>84</sup>

**Table 7.1 Summary of outcomes using our approach (\$million, \$2013)**

	2014	2015	2016	2017
Total efficient costs of the benchmark operator	662	670	678	684
Less the efficient cost of providing school services	51	52	52	53
Less non-fare revenue	20	20	20	20
Net efficient costs of the benchmark operator	591	599	605	611
Less value of external benefits for the benchmark operator	233	236	239	242
<b>Revenue requirement</b>	<b>358</b>	<b>363</b>	<b>366</b>	<b>369</b>
<b>Annual real increase in maximum fares to meet the revenue requirement by 2017</b>	0.5%	0.5%	0.5%	0.5%
Government subsidy for concession fares	81	83	84	86
Total amount that will be funded by passengers	274	277	280	283
Share of costs that will be funded by passengers	41%	41%	41%	41%

**Note:** Columns may not add due to rounding.

This approach yielded an increase in fares of 0.5% per year above inflation, which will mean passengers will fund around 40% of the efficient costs of providing bus services each year (Table 7.1).

<sup>84</sup> In the first 3 years of the determination there is a small under-recovery compared to the revenue requirement.

Taxpayers will fund 40% of efficient costs in line with our estimate of the external benefits attributable to bus services, plus a further 20% for the cost of school services and concession tickets. In our view, this is an appropriate sharing of costs for these services.

## 7.2 Fares included in the price cap

The same fare schedule applies in all metro and outer metro bus regions (except Newcastle) as a result of the Government's fare harmonisation policy.

In all regions except Newcastle, the average fare change applies to the following **adult** tickets:

1. MyBus single tickets
2. TravelTen tickets, which can be used for 10 single bus trips
3. The weekly, monthly, quarterly and yearly MyMulti1 tickets (50% of ticket sales through all ticket outlets), which are periodical tickets that allow an unlimited amount of bus trips across the entire metropolitan bus region, and for train trips up to 10 km
4. Special event sports ticket
5. School Term Pass
6. New fares that are not trial products.<sup>85</sup>

Fares for Pensioner Excursion Tickets (PETs), Family Funday Sundays, and other concession fares<sup>86</sup> that can be used for bus travel are set by the Government.

All of the MyMulti fares are set under the rail determination. However, we have decided to include the MyMulti1 fare in the bus price cap calculation, because it is often used by passengers who exclusively or primarily use it for bus trips (see Box 7.1 for more information). This means that if the price of a MyMulti1 goes up by more than the cap in the bus fare determination, then the price of other bus tickets will need to increase by less than this (or decrease) to compensate.

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<sup>85</sup> A trial product is a fare:

- that is forecast to contribute less than 1% of ticket sales and 1% of fare revenue
- for which there is already an approved product that can be used on the route.

A fare will cease to be a 'trial fare' if it exceeds the revenue or ticket sales thresholds, or is continued in the next pricing period.

<sup>86</sup> For the purposes of calculating the average change in fares, all journeys made on concession fares will be added to the journeys taken on the equivalent adult fare.

We have not included the MyMulti DayPass, and MyMulti2 and MyMulti3 fares in the cap, because they are primarily rail and ferry tickets.<sup>87</sup> Because a customer can catch a bus anywhere in Sydney with a MyMulti1 ticket, the only reason that a bus passenger would purchase the more expensive MyMulti2 and MyMulti3 tickets would be if they were also catching a train or a ferry. Our decision to exclude these fares from the cap means that there is no relationship between the price of these MyMulti tickets and that of other bus fares.<sup>88</sup>

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### **Box 7.1 How the MyMulti1 ticket can be used on buses**

The MyMulti1 ticket is likely to be used by bus customers who regularly have to catch more than one bus per journey as it works out cheaper than purchasing multiple TravelTen tickets, whether or not they also use any rail or ferry services. For example, a MyMulti1 (currently \$44) can be cheaper than using a TravelTen where a passenger makes more than 15 bus trips in a week on a MyBus2 Travel 10, or more than 12 trips in a week on a MyBus3 TravelTen.

For example, to travel from Mosman to Randwick to and from work every day, a passenger would have to buy a \$36.80 MyBus3 TravelTen, and a \$28.80 MyBus2 TravelTen, equal to \$65.60. These TravelTens provide a 20% discount compared to if all of these journeys were travelled on a single ticket.

While the discount provided by the MyMulti1 compared to the single fares is greater than the 20% discount provided by the TravelTens (\$44 compared to \$65.50), we consider that this is fair because if a single bus travelled the entire route, they could use one MyBus3 TravelTen ticket only (\$36.80). We understand that the Opal card will price the 2 trips as a single 8km+ journey if the passenger boards the second bus within 60 minutes of alighting the first bus.

**Source:** <https://www.opal.com.au/en/fare-information/>

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In Newcastle, we propose a separate average price cap subject to the same limit – so that on average Newcastle tickets can increase by no more than 0.5% above inflation each year. We have included 50% of the revenue from sales of Orange TravelPasses in this average price cap.

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<sup>87</sup> The boardings on these tickets will be treated as trips made on MyBus2 tickets for the purposes of calculating the average fare changes.

<sup>88</sup> This means that any changes to these fares do not need to be offset by changes to other bus fares. However, these MyMulti fares must still comply with the weighted average price cap for rail fares. All journeys taken using MyMulti tickets (except for the MyMulti1) are treated as if they were taken on a MyBus2 TravelTen.

Setting a separate price cap for Newcastle ticket types does not mean that we have considered Newcastle fares any differently to other metropolitan and outer metropolitan regions. Rather, the separate price cap limits the magnitude of the price changes that could apply to Newcastle bus passengers. If Newcastle tickets were included under the same price cap as Sydney tickets, Newcastle fares could potentially be increased significantly without exceeding the average cap, because the volumes of Newcastle ticket sales are so small in comparison to Sydney ticket sales.

For the annual fare changes, we will check that the fares proposed by TfNSW comply with our determination by:

1. calculating the revenue in the current year (current price multiplied by the current number of ticket sales<sup>89</sup>)
2. calculating the revenue in the next year (proposed prices also multiplied by the **current** number of ticket sales)
3. making sure the difference does not exceed 0.5% above the rate of inflation.

Box 7.2 gives an example of how we do this.

For fare changes proposed during the year, we make sure that the revenue in the current year does not exceed the revenue in the previous year by more than 0.5% above the rate of inflation (using the ticket sales for the previous year).

The compliance process is discussed further in Appendix F.

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<sup>89</sup> The number of ticket sales is based on the number of boardings. For example, 1 boarding on a single ticket is equivalent to 1 ticket sold, and 10 boardings on a MyBus TravelTen are equivalent to 1 ticket sold.

### Box 7.2 How we check that the proposed fares comply with our fare determination

Consider there are 3 different hypothetical bus fares. In year 1 the revenue is calculated by multiplying the fares by the number of tickets sales made on each fare during that year.

#### Fares and revenue for year 1

Fare	Price	Number of ticket sales (year 1)	Revenue
	a	b	a * b
MyBus1	\$2.20	100	\$2.20*100 = \$220
MyBus2	\$3.60	70	\$3.60*70 = \$252
MyBus1 TravelTen	\$17.60	15	\$17.60*15 = \$264
<b>Total revenue</b>			<b>\$736</b>

We increase the total revenue in year 1 by the average fare increase allowed to calculate the revenue allowed for year 2. With a 2.6% fare increase (equal to 2.1% inflation +0.5%), the total revenue allowed in year 2 will be  $\$736*(1+2.6\%) = \$755.14$ .

The fares for year 2 must be set so that the revenue does not exceed \$755.14. The table below shows that the revenue for year 2 is the product of the proposed fares, and the number of tickets sales for each fare from **year 1**.

#### Fares and revenue for year 2

Fare	Price	Number of ticket sales (year 1)	Revenue
	c	b	c * b
MyBus1	\$2.20	100	\$2.20*100 = \$220
MyBus2	\$3.80 (increased)	70	\$3.80*70 = \$266
MyBus1 TravelTen	\$17.80 (increased)	15	\$17.80*15 = \$267
<b>Total revenue</b>			<b>\$753</b>

The proposed fares for year 2 in the table above would comply with our average fare increase because the total revenue is less than the allowed revenue - \$753 is less than \$755.14. In year 3, the price can increase to what it would have been if the previous year's prices had increased to the maximum allowable amount. However, foregone revenue cannot be recovered.

### 7.3 Why we chose to set a maximum average price cap, rather than individual fares

In submissions to our issues paper, some stakeholders considered we should set the actual fares or at least set price limits for each individual ticket.<sup>90</sup> In its submission to our draft report and at the public hearing, Action for Public Transport expressed concern about the degree of flexibility that TfNSW has to set fares under our maximum average price cap.<sup>91</sup>

TfNSW is responsible for deciding the type and price of tickets for sale, subject to the maximum prices in our determination. This includes paper tickets and Opal fares and is the case whether we set individual maximum prices or a price cap.

Setting a price cap means that TfNSW can increase some fares by more than the average, but they will need to be offset by a change in other fares by less than the average. This is no different than if TfNSW decided to increase some fares up to their individual maximum and leave others below their maximum as they have chosen to do in previous years.

The introduction of the Opal provides TfNSW with the opportunity to consider changes to current tickets or introducing new tickets over the determination period. This may include streamlining or simplifying tickets (as MyZone did when it was introduced).

Fare increases that exceed the average increase may be appropriate for individual tickets as a way of phasing out products where there are alternative fares available (in order to simplify the ticketing system), or where the current fare significantly understates the relative costs of providing the services. For example, TfNSW recently phased out the MyMulti1 tickets on Sydney Ferries because, depending on how the ticket was used, it provided a discount of more than 40% compared to purchasing single journeys, which is significantly higher than the discounts for other modes of transport.<sup>92</sup>

We also consider that relatively higher fares in peak periods may encourage some passengers to shift their travel into off-peak times as a way to manage congestion. The introduction of electronic ticketing makes it technically possible for different fares to be charged for different times. We note that Action for Public Transport submitted that if peak pricing is introduced to buses in the future, peak fares should not apply to passengers travelling in the peak that are travelling against the principal flow, or older passengers.<sup>93</sup>

<sup>90</sup> Save our Rail NSW Inc., 17 June 2013, p 4; Mr R. Banyard, p 5; Action for Public Transport, submission to issues paper, 8 June 2013, p 3; Action for Public Transport, submission to issues paper, 23 June 2013, p 7.

<sup>91</sup> Action for Public Transport, public hearing transcript, 15 October 2013, pp 30-31 and submission to draft report, 24 October 2013, p 3.

<sup>92</sup> <http://www.131500.com.au/tickets/fares/mymulti-changes>, accessed 24 September 2013.

<sup>93</sup> Action for Public Transport, submission to issues paper, 8 June 2013, p 4.

If we set the maximum price for each ticket, this will limit TfNSW's ability to change fares without losing fare revenue. This may lead to a larger contribution to efficient costs being required from taxpayers than is justified by the external benefits generated by bus services.

As an example of how revenue is lost, suppose we set the following hypothetical maximum fares and assumed the following number of passenger journeys:

- ▼ MyBus 1 (0 – 3.2 km): \$2.30 (6 million journeys)
- ▼ MyBus 2 (3.2 – 8 km): \$3.60 (4 million journeys)
- ▼ MyBus 3 (8 km+): \$4.70 (2 million journeys).

Subsequent to our determination, if TfNSW decided to simplify the fare structure to a single fare across all distances, it would have to set the single fare at \$2.30, to ensure that passengers travelling less than 3.2 km were not charged more than the maximum fare under the determination. This would result in a loss of around \$10 million each year or 27% of fare revenue,<sup>94</sup> which taxpayers would have to fund in addition to their contribution to external benefits and concession tickets.

Under a maximum average price cap, TfNSW could set a single flat fare at \$3.10 for all distances and around 1% of revenue would be lost. Under this scenario, taxpayers would not have to contribute more than their fair share of efficient costs as justified by the external benefits.

We consider that setting a maximum average price cap provides passengers with sufficient certainty about how fares are likely to change. Ultimately, governments are accountable to their constituents for the decisions they make on fares. In the past, TfNSW has generally proposed modest increases in individual fares. For example, in 2013 when TfNSW had flexibility to set individual fares for CityRail and Sydney Ferries, the largest increase for a single trip was 20 cents.<sup>95</sup>

In its submission to our issues paper, Action for Public Transport was concerned that the Government may forgo approved fare increases for political purposes leading up to an election and would then apply the normal plus foregone increase after the election.<sup>96</sup>

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<sup>94</sup> Based on fare revenue of \$274 million (\$2013/14) expected to be recovered from passengers in the first year of the determination.

<sup>95</sup> IPART, *Compliance Statement for CityRail, Sydney Ferries and Metropolitan and Outer Metropolitan Buses*, December 2012.

<sup>96</sup> Action for Public Transport, submission to issues paper, 8 June 2013, p 3.

Our determination does not allow TfNSW to catch up on forgone revenue from previous years. They can only increase the fares more than the price cap to collect the same amount of revenue had the fares been increased by the maximum in the previous year. Regardless of the timing of the fare changes, by 2017, the fares cannot increase by more than 2% plus inflation, compared to 2013 fares. This means that the timing of the fare increases will not cause passengers to be worse off.

## 8 Implications of fare changes for passengers, the Government and the environment

Before finalising our determination, we considered its impact on stakeholders, as required by section 28J of the Passenger Transport Act and section 15 of the IPART Act. In particular, we considered the affordability of our recommended maximum fares for passengers and the impact on bus patronage. We also assessed the likely impact this fare change will have on Government expenditure and the environment.

The sections below provide an overview of our conclusions and the data and analysis which support them.

### 8.1 Implications for passengers

In assessing the impact of our determination on passengers, we considered:

- ▼ the use of bus services
- ▼ the employment and income profile of bus passengers
- ▼ the relative cost of bus fares to income
- ▼ the use of concession fares
- ▼ the views of stakeholders.

#### 8.1.1 Use of bus services

On an average weekday, 4.2% of all trips by residents of the Sydney Greater Metropolitan Area (GMA)<sup>97</sup> are made by bus. The proportion of trips made by bus is higher during the morning peak (5.7%), when traffic is at its busiest, and drops to 1.7% on weekends (Table 8.1).

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<sup>97</sup> This is made up of the Sydney, Newcastle and Illawarra metropolitan regions.

**Table 8.1 Incidence of bus travel in Sydney Greater Metropolitan Area**

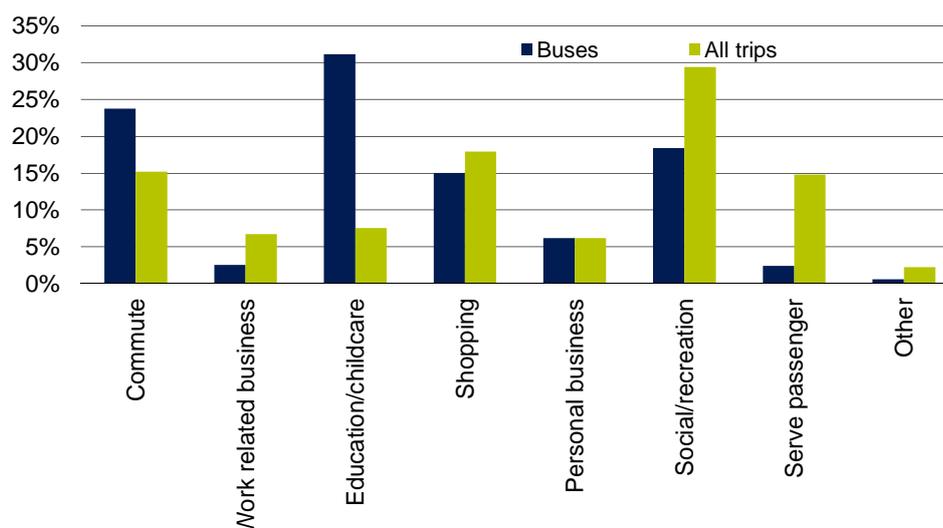
	AM Peak	Weekday	Weekend
Number of bus trips	331,675	1,043,692	343,447
Bus trips as a percentage of total trips	5.7%	4.2%	1.7%
Bus use as a proportion of public transport and taxi use <sup>a</sup>	48%	48%	37%

<sup>a</sup> Most trips are organised through private means such as cars, walking or cycling. For example, on a typical weekday 91.2% of trips are made through private means.

**Source:** Bureau of Transport Statistics, *Household Travel survey, 2011/12*. This is pooled over the period from 2007/08 to 2011/12, weighted to June 2011 population.

Residents are most likely to take the bus to work and to their place of education or childcare; more than half of bus trips are taken for these non-discretionary purposes (see Figure 8.1).

**Figure 8.1 Purpose of bus travel in Sydney Greater Metropolitan Area**

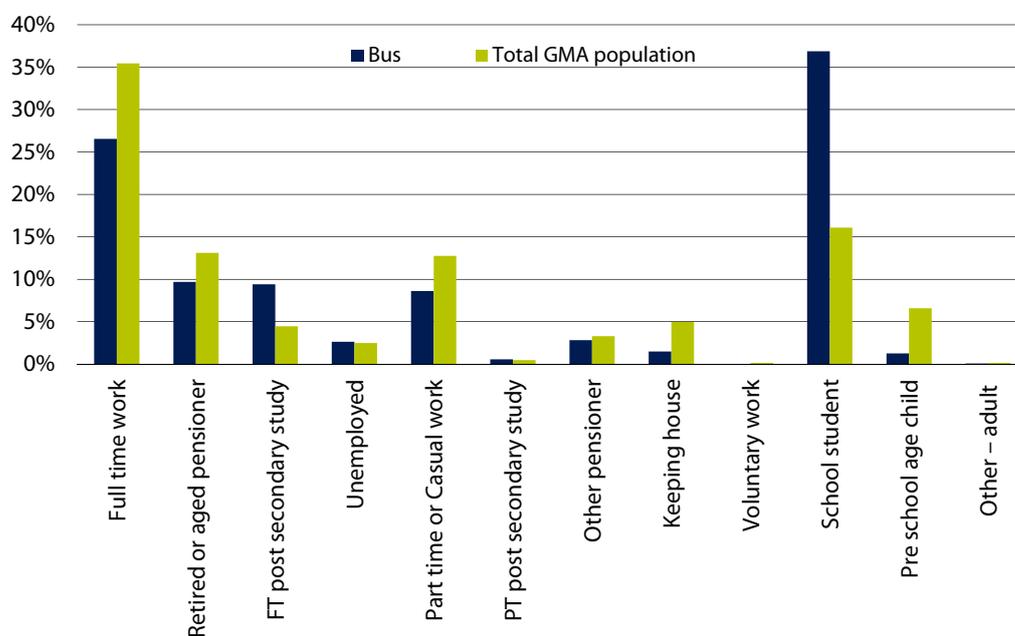


**Data source:** Bureau of Transport Statistics, *Household Travel survey, 2011/12*. This is pooled over the period from 2007/08 to 2011/12, weighted to the June 2011 population.

### 8.1.2 Labour force status of bus users

On weekdays, the primary users of bus services are school students (37%) and full-time workers (27%). Together they make up more than 60% of total trips made (Figure 8.2).

**Figure 8.2 Labour status of weekday bus users in Sydney Greater Metropolitan Area**



**Note:** A person may be more than 1 type of user.

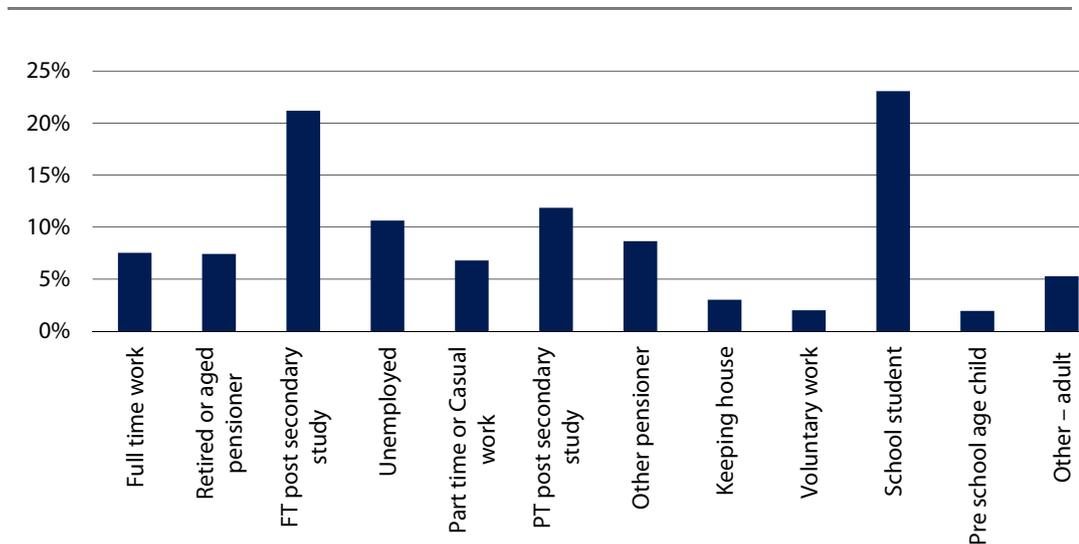
**Data source:** Bureau of Transport Statistics, Household Travel survey, 2011/12. This is pooled over the period from 2007/08 to 2011/12, weighted to June 2011 population.

Expressed as a proportion of each user group, on an average weekday, bus services are used by:

- ▼ 23% of school students
- ▼ 21% of post-secondary students
- ▼ 11% of unemployed people
- ▼ 9% of pensioners
- ▼ 8% of full time workers.

This is shown in Figure 8.3.

**Figure 8.3 Percentage of bus users by labour force status in Sydney Greater Metropolitan Area**



**Data source:** Bureau of Transport Statistics, *Household Travel Survey, 2011/12*. This is pooled over the period from 2007/08 to 2011/12, weighted to June 2011 population.

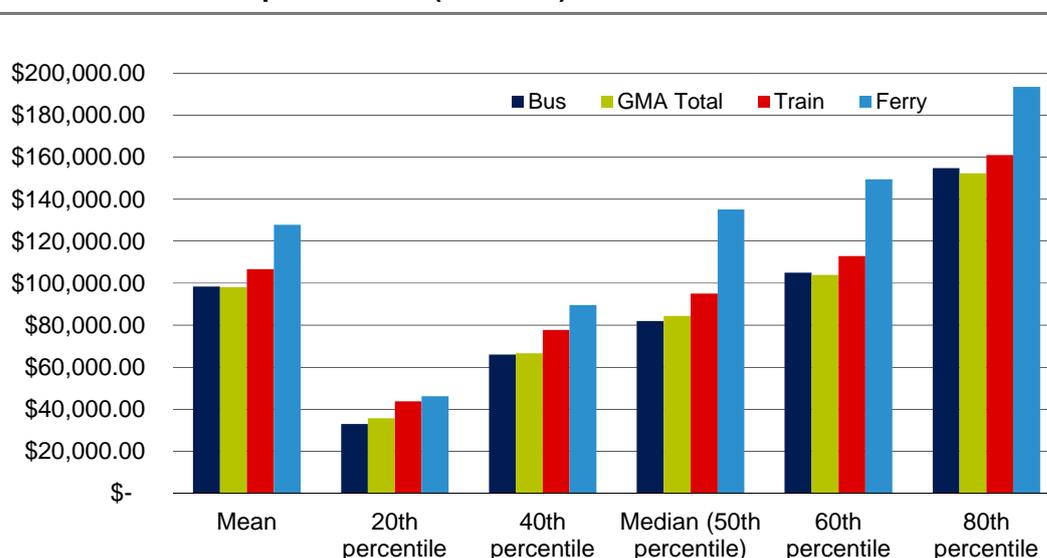
### 8.1.3 Income profile of weekday bus users

In general, bus users have the lowest incomes of all weekday public transport users. The income of the average weekday bus user is 14% lower than the average income in the GMA, 22% lower than the income of the average train user, and half the average income of ferry and taxi users. However, it is important to note that the lower income of bus users is at least partly explained by the high number of students who catch the bus.<sup>98</sup>

We consider that the household income of bus users, which may include parents' income, is a more reasonable representation of the welfare of bus users. Bus users' household income is more in line with the average household income across the GMA: the average bus user's household income is \$98,433 compared with the GMA total average of \$98,047 (\$2011/12). Nevertheless, on average, bus users have the lowest household incomes of all public transport users (Figure 8.4).

<sup>98</sup> The income section of the Housing Travel Survey is answered by every member of a household aged 15 years or over.

**Figure 8.4 Household income of weekday bus users in Sydney Greater Metropolitan Area (\$2011/12)**



**Note:** People may use more than 1 mode of transport. Excludes children under 15. A percentile indicates the value that a given percentage of a population falls below. For example, 20% of all weekday bus users have a household income below \$33,030.

**Data source:** Bureau of Transport Statistics, Household Travel Survey, 2011/12. This is pooled over the period from 2007/08 to 2011/12, weighted to the June 2011 population. Income profiles vary between peak and off-peak users.

### Fares as a proportion of average earnings in NSW

The current (2013) price of a TravelTen ticket is between 1.6% and 3.3% of the average adult (ordinary time) weekly earnings in NSW, depending on the distance travelled (Table 8.2).

**Table 8.2 Price of a TravelTen ticket as a share of average weekly earnings (% , \$2013)**

Distance travelled (number of sections <sup>a</sup> )	2013 price of TravelTen	Relative to average weekly earnings NSW (full-time, %)	Relative to average weekly earnings NSW (all, %)
1-2 sections	\$17.60	1.3%	1.6%
3-5 sections	\$28.80	2.0%	2.6%
6+ sections	\$36.80	2.6%	3.3%

<sup>a</sup> A section is approximately 1.6km.

**Note:** Average weekly earnings are from May 2013.

**Source:** IPART; ABS Catalogue No. 6302.0, Table 13A.

Several stakeholders were concerned about the affordability of bus services for low-income workers. For example, Ms Sonia Hornery MP considered that some “low-income workers with similar financial impediments to students, pensioners and the unemployed rely on public transport without the benefit of government concession”.<sup>99</sup>

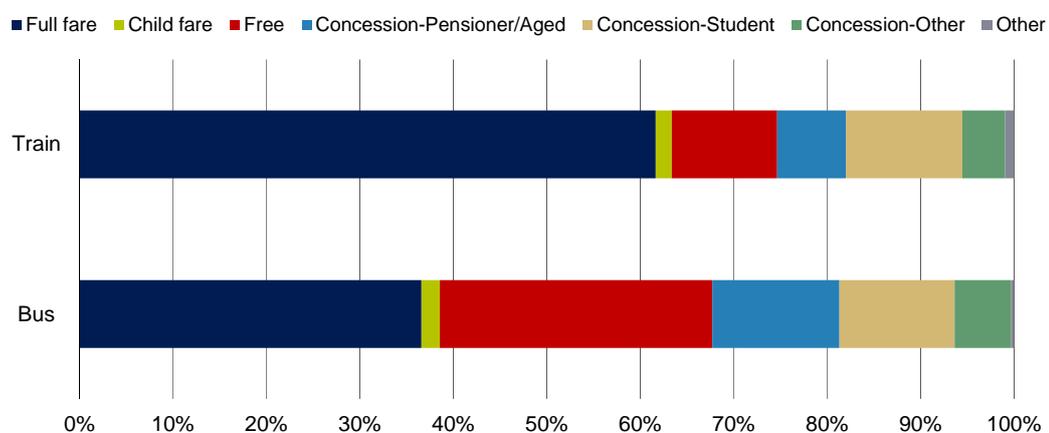
Bus travel is the most affordable mode of public transport in NSW. An annual average price increase of 0.5% above inflation will have no or negligible impact on the cost of bus fares relative to income, even for low-income earners. As noted in Chapter 2, the cost of a single bus journey in Sydney is cheaper than, or comparable to, the cost of making the same distance journey in other major Australian cities. In Newcastle, shorter journeys (less than 10km) are relatively more expensive, but longer journeys (more than 10km) are relatively cheaper than other major cities, because of its flat fare structure.

In addition, fare-paying passengers contribute only 40% of the efficient costs of providing bus services, with government funding the remaining 60%, consistent with our estimated external benefits of bus services and the expected cost of school services and concession funding.

#### 8.1.4 Use of concession tickets

Many bus users travel on some form of concession fare. Only 37% of bus trips are made by passengers paying the full fare (Figure 8.5). Of the remaining trips, 31% are made by school students or other groups travelling for free (mainly as a result of the school student transport scheme (SSTS)) and a further 30% by pensioner, students, and other concession holders.

**Figure 8.5** Trips made using bus compared to those made by train



**Data source:** Bureau of Transport Statistics, *Household Travel survey, 2011/12*. Includes 5 waves (2007/08 to 2011/12) of data weighted to the June 2011 population.

<sup>99</sup> Ms Sonia Hornery MP, submission to draft report, p 1.

Some stakeholders expressed concern that many low-income earners are not eligible for concession tickets.<sup>100</sup> In addition, Ms Sonia Hornery MP stated that increases in maximum fares usually trigger a comparable rise in concession fares.<sup>101</sup> NCOSS noted IPART's long-held view that an effective concession program is the best way to support low-income passengers, but argued that the current government concession program is not well-targeted and that some groups miss out.<sup>102</sup>

TfNSW is responsible for administering the public transport concession program, including setting the eligibility criteria and the type and level of concession fares available.

Even though our determination does not set maximum concession fares, they are generally linked to the level of adult fares (historically, most concession fares have been set at 50% of the level of comparable adult fares). In our view, the availability of concession fares will mitigate the impact of the proposed maximum fare change for the 30% of passengers who travel on a concession fare, because concession fares generally rise by a smaller amount in absolute terms than adult fares. Our fare determination will have no impact on the 31% of passengers who already travel fare-free.

It remains our position that an effective concession program (rather than reducing fares for all passengers) is the best way to support lower income passengers. Otherwise, taxpayers' funds are subsidising higher income passengers who do not need financial assistance.

### 8.1.5 Implications for bus patronage

Some stakeholders highlighted that patronage in the Newcastle area has declined since our 2010-2013 determination was made.<sup>103</sup> To encourage patronage growth, they recommended real price reductions in the Newcastle area:

- ▼ Ms Sonia Hornery MP recommended reducing prices from \$3.60 to \$3.00 for 1 hour tickets.<sup>104</sup>
- ▼ Hunter Transport Association recommended a price freeze in conjunction with a "directive to provide a plan to efficiently grow bus patronage".<sup>105</sup>

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<sup>100</sup> NCOSS, public hearing transcript, 15 October 2013, p 27; Ms Sonia Hornery MP, submission to draft report, p 1.

<sup>101</sup> Ms Sonia Hornery MP, submission to draft report, p 1.

<sup>102</sup> NCOSS, public hearing transcript, 15 October 2013, p 27.

<sup>103</sup> Hunter Transport Improvement Association, submission to draft report, 25 October 2013, p 1; R. Banyard, submission to draft report, 25 October 2013, p 2; Ms Sonia Hornery MP, submission to draft report, p 2.

<sup>104</sup> Ms Sonia Hornery MP, submission to draft report, p 2.

<sup>105</sup> Hunter Transport Improvement Association, submission to draft report, 25 October 2013, p 1.

Many factors influence the decision to use bus services, including accessibility, integration of bus services, convenience, reliability and comfort (Table 8.3).

**Table 8.3 Reasons for travelling to work by car (weekdays, 2011/12)**

Reason	Percent
Prefer convenience/independence of car	53%
PT services are indirect	37%
PT services are too slow	26%
PT doesn't go where required	17%
PT timetable constraints	16%
Employer provides/subsidises car/parking	14%
Use car for work trips	13%
Use car for other non-work trips	11%
PT is unavailable here	10%
PT services are too infrequent	9%
Carpooling arrangements	6%
PT services are unreliable	6%
Other	4%
PT uncomfortable	3%

**Note:** PT = public transport. Percentages do not add to 100% as there may be more than one reason why survey participants do not travel by public transport.

**Source:** Bureau of Transport Statistics, *Household Travel survey, 2011/12*.

Some of these reasons were also cited by stakeholders in submissions and at the public hearing. Mr Banyard stated that Newcastle bus routes are not convenient, not on time and that route maps and timetables do not contain the correct information.<sup>106</sup> The Hunter Transport Improvement Association stated that the network structure and paucity of service does not meet the needs of the community.<sup>107</sup>

These service performance concerns are a matter for TfNSW to consider. As discussed in Chapter 2, TfNSW is responsible for setting service levels, frequency and performance standards for operators and enforcing these through its contracts with operators. Our determination on maximum fares has no impact on the quality of services or performance of operators, because operators do not keep the fare revenue received from passengers.<sup>108</sup>

It is our view that our recommended maximum fare increase of 0.5% above inflation by itself will have a negligible impact on patronage growth.

<sup>106</sup> Mr R. Banyard submission to draft report, 24 October 2013, p 1.

<sup>107</sup> Hunter Transport Improvement Association submission to draft report, 25 October 2013, p 1.

<sup>108</sup> Although we note that the new contracts with private operators include a patronage incentive payment. This does not currently apply to services provided by STA in the Newcastle region.

## 8.2 Implications for the NSW Government

Under the maximum fares in our determination, the Government would contribute approximately 60% of the efficient cost of providing bus services. The Government's contribution is made up of 40% of efficient costs in line with our estimate of the external benefits of bus services and 20% for the cost of social policies that involve the provision of free or reduced fares for some passengers (such as pensioners, children, job seekers, school students and people with disabilities) (Table 8.4). While these social policies are a matter for the Government, we consider that it is appropriate that these policies be paid for by taxpayers rather than by full fare paying passengers.

**Table 8.4 Expected revenue from passengers shares (\$million, \$2013)**

	2014	2015	2016	2017
Amount passengers should fund through fares	274	277	280	283
Amount Government contributes for external benefits	233	236	239	242
Amount Government contributes for concession fares	81	83	84	86
Amount passengers fund through fares (% of total costs)	41%	41%	41%	41%

## 8.3 Implications for the environment

Our approach integrates environmental considerations by valuing the external benefits of using bus services (which includes the impact to the environment of passengers travelling by bus instead of driving) and using this to guide our decision on what level of efficient costs should be funded by the Government (through taxpayer funds).

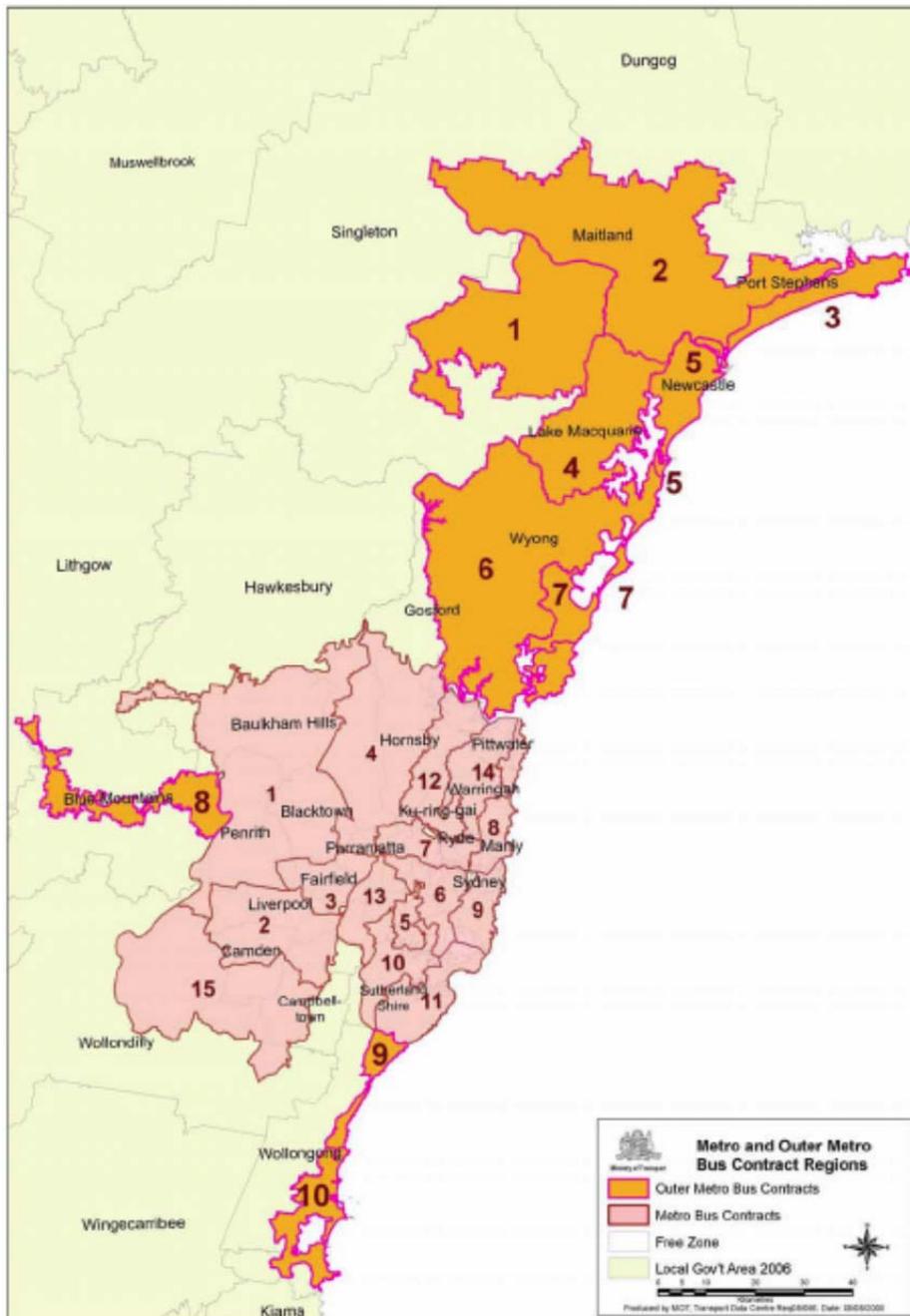
As discussed in section 8.1, there is evidence that demand for bus services is affected by many factors outside of fare levels, so it is unlikely that our recommended fare change will have a significant impact on patronage or, as a result, the environment.



## **Appendices**



## A Map of bus contract regions



## B Legislative requirements for the review

### B.1 Requirements of the *Passenger Transport Act 1990*

Section 28J of the *Passenger Transport Act 1990* states that:

1. This section applies to any service contract for a regular bus service that authorises or otherwise permits the holder (or a person providing the service for the holder under a subcontract or other arrangement) to charge passengers of the service a fare for the use of the service.
2. The Independent Pricing and Regulatory Tribunal (the Tribunal) is to conduct investigations and make reports to the Minister on the following matters:
  - a) the determination of appropriate maximum fares for regular bus services supplied under service contracts to which this section applies,
  - b) a periodic review of fare pricing policies in respect of such services.
3. In respect of an investigation or report under this section, the Minister may require the Tribunal to consider specified matters when making its investigations.
4. Division 7 of Part 3 of the Independent Pricing and Regulatory Tribunal Act 1992 is taken to apply to an investigation under this section in the same way as it applies to an investigation under Part 3 of that Act.
5. In making a determination under this section, the Tribunal is to consider the following matters:
  - a) the cost of providing the services concerned,
  - b) the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standards of service,
  - c) the need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers,
  - d) the need to maintain ecologically sustainable development (within the meaning of section 6 of the Protection of the Environment Administration Act 1991) by appropriate pricing policies that take account of all of the feasible options to protect the environment,
  - e) the social impact of the determination,
  - f) standards of quality, reliability and safety of the services concerned (whether those standards are specified by legislation, agreement or otherwise) and any suggested or actual changes to those standards,

- g) contractual arrangements prevailing in the industry,
- h) such other matters as the Tribunal considers relevant.

### **Protection of the Environment Administration Act – section 6(2)**

Section 6(2) of the *Protection of the Environment Administration Act 1991* states that:

1. For the purposes of subsection (1) (a), ecologically sustainable development requires the effective integration of economic and environmental considerations in decision-making processes. Ecologically sustainable development can be achieved through the implementation of the following principles and programs:
  - a) the precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

In the application of the precautionary principle, public and private decisions should be guided by:

- i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and
  - ii) an assessment of the risk-weighted consequences of various options,
- b) inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,
  - c) conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,
  - d) improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:
    - i) polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,
    - ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,
    - iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

## B.2 Section 15 requirements of the Independent Pricing and Regulatory Tribunal Act (1992)

Section 15 of the *Independent Pricing and Regulatory Tribunal Act 1992* states that:

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

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

## C Overview of bus contract regime

In 2005/06, the NSW Government simplified the bus contract system to concentrate a multitude<sup>109</sup> of bus regions into 15 metropolitan and 10 outer metropolitan regions. This reform emphasised providing services to major centres and links to other modes of transport. It also moved to a form of service contracting that sees operators receive monthly payments that do not depend on the fares they collect (ie, Transport for NSW (TfNSW) effectively takes the fare revenue and uses it to off-set some of the costs of contract payments).

TfNSW entered into individual contracts to provide services for each of these regions. The contracts negotiated under these reforms are now progressively coming to an end. Recently, TfNSW put out competitive tenders to provide bus services in several of the metropolitan contract regions, as well as renegotiating new contracts with other private metropolitan providers and with the State Transit Authority (STA), the government-owned transport operator, which provides bus services for the largest 4 regions by passenger volume. TfNSW has now renegotiated or tendered contracts for services in all metropolitan bus regions and the new service contracts should come into effect by the end of August 2014. Several service contracts have already commenced.

The 10 outer metropolitan regions presently remain on the old service contracts, however, these contracts will expire over the coming years and TfNSW is now in the process of renegotiating these contracts.

The new Sydney Metropolitan Bus Service Contracts place a greater emphasis on improved services. They require operators to achieve higher levels of performance, including improved on-time running and performance reporting. As a result of the tender process some operators provided additional services such as the following:

- ▼ improve fleet and service optimisation
- ▼ introduce some contingency services in case of operational issues during peak times
- ▼ add bus services on selected routes (eg, Routes 565, 577, M61 & Transitway)
- ▼ improve running times on many services
- ▼ improve customer information and interfaces.

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<sup>109</sup> For example, previously there were 87 metropolitan bus regions.

This appendix provides an overview of the new metropolitan bus contracts.

### **C.1 Contract duration**

The contracts' terms begin at various times. They are initially valid for 5 years, though they may be extended for a further 3-year period if certain conditions are met, or at the discretion of TfNSW.

### **C.2 Bus services**

Under the contracts, the operator is required to efficiently and effectively meet the approved timetables. These include regular passenger services and dedicated school services.

### **C.3 Additional services**

The contracts also require operators to perform other supplementary duties. Of note, the contracts require operators to:

- ▼ develop and publish accurate timetables and route maps and ensure these are passed to the transport info hotline 131500
- ▼ monitor security on buses
- ▼ inform passengers and TfNSW of service delays
- ▼ develop, implement and comply with passenger relations plans
- ▼ provide a service desk (though it may elect that it be provided by Transport Info 131500)
- ▼ administer school students travel schemes.

### **C.4 Contract payments**

In exchange for the provision of these services, TfNSW pays the operators a monthly contract payment.

Operators receive an incentive payment of 5 cents for every fare-paying passenger on their contracted bus services and they can lose some of their contract payment if they fail to achieve certain key performance indicators.

The contract payments are not offset by other revenue earned by operators – advertising revenue, coach charter revenue, etc. In the previous contracts TfNSW had an 'other revenue' sharing arrangement with the operators.

## C.5 Adjustments to contract payments

### C.5.1 Cost inflators

The contract payments will be adjusted periodically to account for the inflation of costs. Each contract payment cost element is aligned with its own inflator.

### C.5.2 Service variations

From time to time, TfNSW will make a variation to the services required.<sup>110</sup> In that case, the operator and TfNSW will come to an agreement about the variation in bus service kilometres and bus service hours needed to accommodate the change.

The operator will be paid for these extra services according to scheduled rates for extra bus hours and kilometres. These rates vary by the time of day, the day of the week, and the type of bus needed to carry out the change in services.

### C.5.3 New buses

New buses are bought or leased directly by operators. Any approved new bus procured under the contract term entitles operators to 15 years of monthly payments equivalent to the upfront cost of a bus (determined by TfNSW's procurement panel) - even if the bus is leased - borrowed at an agreed interest rate. The interest rates vary by contract region.

## C.6 Key Performance Indicators

TfNSW judges the operators' services provision against key performance indicators (KPIs). The emphasis of the KPIs is on the delivery of service outcomes to customers as set out in the contract which included safe and reliable services.

There are 4 classes of KPIs. Class 1 KPIs - outlined in Box C.1 - are the most important; these are the KPIs that operators must comply with or else they face financial penalties. Each breach of a class 1 KPI will result in 0.75% of the monthly contract payment being deducted from the monthly payment. There is a loading factor that means that multiple breaches of a KPI result in harsher penalties.

In addition, repeated failure to meet class 1 KPIs can trigger a termination of contract.

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<sup>110</sup> The operator may request a service variation, though this is subject to TfNSW's approval.

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**Box C.1 Class 1 KPIs**

- a) In a reporting period, at least 95 of published timetable trips and headway trips commence the trip on time.
  - b) In a monthly period, less than 1% of trips are incomplete and less than 1% of trips are cancelled.
  - c) In an annual period, there are less than 22 complaints per 100,000 passenger boardings.
  - d) In a monthly period, there are no major defects to contract buses.
  - e) In a monthly period, at least 99.5% of passengers inspected have paid for their Trip boarding.
  - f) In a monthly period, there are no errors in the information on the operator's website and or on Transport for NSW's operational database.
  - g) All incidents that required an image from closed circuit television were retrievable and all duress alarms were responded to within 30 seconds.
- 

Operators are required to monitor class 2 and class 3 KPIs<sup>111</sup> and provide detailed reports on their performance to TfNSW. TfNSW can redesignate up to a maximum of 2 Class 2 KPIs to a Class 1 KPI at its discretion.

There is only one Class 4 KPI and it measures customer satisfaction. If it is not met over a set year period, the operator will have to pay 0.3% of their annual contract payment to TfNSW.

## C.7 Reporting and Governance

Periodically, operators must provide the following information to TfNSW:

- ▼ Monthly operational reports - value of ticket sales, bus service kilometres, performance data, incomplete trips, passenger data by bus route, customer feedback, timetable changes, contract buses, patronage by time of day.
- ▼ Monthly performance reports for all KPIs, including corrective action plans for failed KPIs, forecasts, trends, progress against improvement plans, recommended improvements to operational processes.
- ▼ Monthly commercial reports - organisational changes, commercial changes, service variation financial summary and trend analysis.
- ▼ Monthly invoice reports.

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<sup>111</sup> Class 2 and 3 KPIs relate to performance of accessible services, complaints resolution and responses to requests for information, 131500 database management and updates, notifying Transport for NSW of bus crowding, cleanliness of buses, maintenance, incident resolution, reporting, project delivery, scheduling and passenger growth.

- ▼ Quarterly Executive Report – Achievement (completed activities and projects), performance scorecards, improvement opportunities, lists of upcoming activities and projects.
- ▼ Annual and biannual financial reports.
- ▼ Continual data transfers including:
  - Operational and Spatial Database – timetable, route, bus stop and shift data, and data from automated and electronic ticketing systems.
  - Public Transport Information and Priority System – GPS data.
  - SSTS data – full details of students to whom the transport operator has issued passes and those which remain current.

Accompanying these reports are regular forums to ensure that operators are complying with the contract and TfNSW's long-term objectives. The following forums attended by senior management occur throughout the contract:

- ▼ Monthly service delivery forum – focuses on the ongoing delivery of the services required including service management, customer satisfaction, and KPI performance and reporting.
- ▼ Monthly commercial forum – focuses on payments, service credits, disputes, contract negotiations and contract variations.
- ▼ Quarterly executive forum – focuses on the ongoing relationship between TfNSW and the operator, the alignment of the operator and the contract towards Transport for New South Wales's business strategies and objectives, management of issues and alignment of governance requirements.

## C.8 Contract buses

All contract services must be performed by contract buses, ie buses that are listed in the contract. At all times, the contract bus fleet must average less than 12 years of age and each bus must be withdrawn from the contract at 25 years of age.

New buses can be added to the contract if a bus needs to be replaced, because a contract bus has reached its retirement age or because a contract bus has been irreparably damaged, or a new bus is needed to adequately supply services in the event of a service variation. All new contract buses must be approved by TfNSW and must comply with Sydney Metropolitan Bus Service Contract Specification and be purchased from the TfNSW bus procurement panel unless approved otherwise.

At the beginning of the contract, and every year thereafter, the operator of the bus fleet provides TfNSW with a New Bus Program.

If the new bus is:

- ▼ leased by the operator then there must be an Operator Bus Lease Agreement between the operator, lessor and TfNSW as set out in the contract
- ▼ purchased by the operator then there must be an Operator Financier Agreement between the secured financiers and TfNSW as set out in the contract.

At the end of the term, if the contract is not renewed then the operator must sell all buses or transfer its bus leases to the successor operator or a TfNSW Lessor. For the tendered contract regions, all buses funded in the previous contract and during the new contract will be made available and transferred to a successor operator. Any buses brought into the contract that were owned by the operators are not subject to transfer. For the new contracts that were negotiated, all contract buses will be made available and transferred to a successor operator.

### **C.9 Other noteworthy conditions**

- ▼ Tickets and fares must be charged at the rates set out in the fares and ticketing schedule.
- ▼ TfNSW maintains ownership of new and some existing systems and equipment and the data collected by these machines.
- ▼ There is a separate electronic ticketing system agreement between operators and TfNSW to facilitate the installation and maintenance of electronic ticketing system equipment on contract buses.

If the contract went to a new operator then it must offer employment to all employees except for general managers and the board of directors.

## D Weighted average cost of capital (WACC)

The weighted average cost of capital (WACC) determines the compensation or return on capital for funds invested by shareholders in the business and for bearing the risks associated with that investment. Current regulatory practice is for the return on capital to be calculated by applying a rate of return that reflects the cost of capital invested in the assets of the regulated business.

Since our 2010 determination, we have developed our approach to setting the WACC. We now use a post-tax WACC to determine a rate of return.<sup>112</sup> Under the post-tax WACC, tax liability is estimated separately from the WACC, based on revenue and expenses of regulated business activities. Although the benchmark operator may not be under the Government's tax-equivalent scheme, the rationale for using a post-tax WACC model is that we are calculating a rate of return required for an efficient commercial business.

We are currently reviewing our WACC methodology to address concerns that the use of current market data to estimate the expected cost of debt and long-term average data to estimate the expected cost of equity may be problematic in more uncertain and changeable market conditions.

Although we have not finalised our review of the WACC methodology, we have reached the view that in the current market conditions, our existing methodology yields estimates of the WACC that are too low by market standards. Hence, we decided that our best approach in the interim is to:

- ▼ Estimate a WACC range based on current market data (using a 40-day averaging period rather than the 20-day period we have previously used) and Bloomberg's estimate of the current forward-looking MRP (instead of using the historical MRP as a proxy for current expectations).
- ▼ Continue to estimate a WACC range based on long-term averages (with a 10-year averaging period) using the methodology used in our recent decisions.

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<sup>112</sup> In December 2011, we changed our approach from a pre-tax WACC model to a post-tax WACC model, which better estimates the tax liability for regulated business. IPART, *The incorporation of company tax in pricing determinations – Final Decision*, December 2011.

- ▼ Select a point estimate of the WACC within the range established by the midpoints of these 2 WACC ranges (in Steps 1 and 2), having regard to relevant market data. This is a change from the existing approach, which had regard to the WACC estimated using long-term averages, but constrained the WACC to be no more than the upper-bound of the WACC range derived from our existing WACC methodology. The approach used in this draft decision gives greater weight to the WACC estimated using the long-term averages.

Our final decision on our WACC methodology will be released in early December. In the meantime, we have calculated the WACC using IPART's standard parameter valuations and methodologies, as set out in the June 2013 Interim Methodology Paper.<sup>113</sup>

## D.1 Summary of our final decision on WACC

Our final decision is that the real post-tax WACC that should apply to the operator of the 4 largest contract regions is 5.3%. This represents the mid-point of the short-term and long-term approaches as set out in our June 2013 interim report. This value is based on:

- ▼ the same industry-specific parameters that were adopted for our 2010 determination
- ▼ market-based parameters<sup>114</sup> updated over the 40-trading day period to 16 October 2013.

Our final decision on the WACC is summarised in Table D.1. Our final decisions on individual parameters are discussed in the sections below.

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<sup>113</sup> IPART, *WACC methodology – Interim Report*, June 2013.

<sup>114</sup> The market-based parameters are the risk free rate, the inflation adjustment and the debt margin.

**Table D.1 Final decision on weighted average cost of capital (WACC)**

Parameter	Short-term	Long-term
Nominal risk free rate	3.3%	4.9%
Inflation adjustment	2.5%	2.7%
Debt margin	2.2 to 3.0%	2.5%
Market risk premium	8.2 to 8.2%	5.5 to 6.5%
Debt to total assets (gearing)	60.0%	60%
Gamma	0.25	0.25
Equity beta	0.7 to 1.0	0.7 to 1.0
Cost of equity (nominal post-tax)	9.0 to 11.5%	8.8 to 11.4%
Cost of debt (nominal pre-tax)	5.5 to 6.3%	7.4 to 7.4%
WACC range (real pre-tax)	5.3 to 7.0%	6.1 to 7.5%
WACC midpoint (real pre-tax)	6.1%	6.8%
WACC range (real post-tax)	4.3 to 5.7%	5.1 to 6.2%
WACC midpoint (real post-tax)	5.0%	5.6%
<b>Decision</b>	<b>5.3%</b>	

**Note:** The 2010 determination did not use a real post-tax WACC. The pre-tax WACC has been converted into a real post-tax WACC for comparison only.

**Source:** IPART, *Review of fares for metropolitan and outer metropolitan bus services from January 2010 - Final Report*, December 2009; IPART modelling.

### D.1.1 Risk free rate

The risk-free rate is used as a point of reference in determining both the expected cost of equity and the cost of debt within the WACC. In both the CAPM and the cost of debt calculation, the risk-free rate is the base to which a premium or margin is added to reflect the riskiness of the specific business for which the rate of return is being derived.

We estimated the risk-free rate using both the 40-day and 10-year averages of 10-year Commonwealth Government bond yields. This resulted in a nominal risk-free rate of 3.3% to 4.9%.

### D.1.2 Inflation rate

The inflation rate is used to convert nominal parameters into real parameters. We estimated inflation using a 40-day average of swap market implied inflation with a 10-year term-to-maturity and breakeven inflation from bond markets using 10-year term-to-maturities averaged over 10 years. This resulted in an inflation rate of 2.5% to 2.7%.

### D.1.3 Debt margin

The debt margin represents the premium a business pays above the nominal risk free rate. The debt margin is related to current market interest rates on corporate bonds, the maturity of debt, the assumed capital structure and the credit rating.

We estimated the debt margin based on our current bond portfolio, the Bloomberg fair value curve and the 10-year average of the 7-year Bloomberg fair value curve. This resulted in a debt margin of 2.2% to 3.0% and 2.5% respectively.

### D.1.4 Market risk premium (MRP)

The market risk premium (MRP) is the expected return over the risk free rate that investors would require for investing in a well-diversified portfolio of risky assets. The MRP is an expected return and is not directly observable. It therefore needs to be estimated through proxies.

We estimated the MRP using a 40-day average of the implied MRP from Bloomberg, which resulted in an MRP of 8.2% to 8.2%, and a historical arithmetic average MRP of 5.5% to 6.5%.

### D.1.5 Gearing

Gearing is a measure of financial leverage and is defined as the ratio of the value of debt to total capital (that is, debt plus equity). Gearing is used to weigh the costs of debt and equity when formulating the WACC.

When determining the level of gearing used to calculate the WACC, we adopt a benchmark capital structure, rather than the actual financial structure, to ensure that customers will not bear the cost associated with an inefficient financing structure.

We used the same gearing of 60% as we used for rail services in our 2012 CityRail determination.

### D.1.6 Imputation tax credits (Gamma)

Under the Australian imputation tax system, shareholders may receive imputation tax credits with dividends which can be used to offset tax liabilities. Domestic investors would accept an investment with a lower rate of return if there were imputation tax credits, since imputation tax credits provide value by

offsetting personal income tax liabilities.<sup>115</sup> International investors cannot utilise imputation credits.

Under a post-tax WACC approach, gamma is modelled as part of the tax liability, which is a component of building block revenue and not a parameter of the WACC. A point estimate of gamma will be required for estimating tax liability.

In a recent decision the Australian Competition Tribunal (ACT) held that the appropriate gamma to use for determining the WACC for the Queensland gas network was 0.25.<sup>116</sup> As such, we have applied a gamma of 0.25.

### D.1.7 Equity beta

The equity beta measures the riskiness of the business relative to the overall market. It can be estimated from observing how the return of traded securities varies with the overall return of the market. It represents the systematic or market wide risk of an asset that cannot be avoided by holding it as part of a diversified portfolio. The equity beta does not take into account business specific or non-systematic risks.

We consider that buses have a slightly lower risk profile than rail services, with an equity beta range of 0.7 – 1.0, compared to 0.8 – 1.0. In our 2010 report, we stated that:

Bus companies have a lower proportion of fixed costs, compared to rail companies, which means that hypothetically, they are better able to adjust their operations according to the level of economic activity. This characteristic results in a lower level of profit variability, which should be reflected in a lower equity beta range.<sup>117</sup>

We consider that there are good reasons for continuing to view bus services as having a lower risk profile than urban rail, because:

- ▼ bus journeys were less impacted by the slower economic growth in NSW at the time of the global financial crisis than were rail journeys (see Figure D.1)
- ▼ buses have lower operating leverage than rail (ie, a smaller share of costs are fixed) due to their smaller proportion of capital costs and the fact that bus assets (buses and depots) are more easily sold than rail assets if there is a persistent downturn in demand driven by systematic factors.

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<sup>115</sup> Under IPART's pre-tax WACC framework, gamma was a WACC parameter. Under a post-tax WACC framework, gamma is not a WACC parameter, but an input into the calculation of tax liabilities.

<sup>116</sup> Australian Competition Tribunal, Application by ENERGEX Limited (Gamma) (No 5) [2011], ACompT 9.

<sup>117</sup> IPART, *Review of fares for metropolitan and outer metropolitan bus services from January 2010 – Final Report*, December 2009, p 59.

### D.1.8 Patronage and economic conditions

One measure of the level of systematic risk of an asset is the extent to which its returns are related to changes in broader economic conditions, such as the level of economic activity.

Bus patronage and rail patronage are both impacted by economic conditions. When economic growth slows, there are changes in the level of employment and decentralisation of employment to locations not well serviced by public transport. This then reduces the number of people using these services.

The closest that NSW and the Australian economy have come to an economic contraction in recent years was in 2008/09 following the Global Financial Crisis. In that year, NSW Gross State Product grew by 1%.

Both rail patronage and bus patronage contracted in the 2009 calendar year. This was particularly pronounced for rail, which had been achieving stronger growth in 2007 and 2008. Following 2009, bus patronage has remained steady, while rail patronage began increasing in 2011.

The response of patronage growth to a 1% change in the growth of gross state product is measured at 1.3% for buses and 3.0% for rail. While this is based only on a very short period, it suggests that rail would be more impacted by an employment downturn in the CBD, because of the focus of the rail network in providing CBD trips. Based on this, bus assets would tend to be considered as lower risk than rail assets and hence, have a lower equity beta (for the same gearing level).

#### Operating leverage

Operating leverage is the proportion of the costs of a business that are fixed versus those that are variable. A higher operating leverage is likely to increase risk and the equity beta.<sup>118</sup> Operating leverage is higher where:

- ▼ capital costs and fixed operating costs are a larger share of the costs of a business
- ▼ capital is less able to be redirected to other uses if there is a change in demand.

#### Capital intensity of bus and rail services

A bus that has a higher capital costs relative to operating costs is generally considered to have greater risk.

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<sup>118</sup> McKenzie M and G. Partington 2012, *Estimating of the equity beta for a gas regulatory process in 2012*, prepared for the AER.

A greater portion of the costs of providing rail services is capital-specific than for bus services. While roads are used by buses, this capital is generally not specific to providing this service. In 2012/13, we allowed for capital costs that were around 30% of the total costs for CityRail.<sup>119</sup> Capital costs are around 21% of total costs for bus services for the benchmark operator.

Having a higher share of costs that are operating costs instead of capital costs suggests that bus services could respond to changes in demand by reducing costs better than rail.

#### Ability to redirect capital

Major bus assets include buses and depots. These assets are not specific to providing services in NSW. There is the potential that buses can be traded (either in Australia or overseas) if not required for use in NSW. Depots could also be used for other purposes. Bus assets included in the regulated asset base also include assets that could be easily shifted to be used by cars, such as the inner west bus way.

Passenger rail assets are highly specific to providing rail services in NSW. The rolling stock is tailored for the NSW rail network. Below-rail assets would take many years and high cost to convert to another use – they are effectively sunk. (we only include a small amount of capital for below-rail assets in our regulated asset base.)

These factors suggest that if there was a systematic downturn in demand for bus and rail services then buses would be able to recover a greater amount of the capital than would rail. This means that, other things equal, buses would be considered less risky than rail.

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<sup>119</sup> IPART, *Review of maximum fares for CityRail services from January 2013 – Final Report*, November 2012.

## E Our analysis of the service performance of metropolitan and outer metropolitan bus operators

Bus operators' incentives for maintaining or improving service quality are not directly affected by our determinations. However, we are required to take into account standards of quality, reliability and safety of services when making our decision.

Operators are required to meet certain key performance indicators (KPIs) outlined in their service contracts. Transport for NSW (TfNSW) monitors performance against these KPIs. From 2013, the new service contracts include additional KPIs compared with earlier contracts. These include passenger crowding, information provision and presentation of buses. The new contracts also include greater detail around KPIs for punctuality and handling of customer complaints.

In past years we have drawn upon the findings of annual surveys of public transport passengers to provide a more complete picture of customer satisfaction with bus services.<sup>120</sup> However, TfNSW released the results of its 2012 and 2013 passenger surveys too late for any analysis to be included in this report. These surveys provide valuable information about customers' perceptions of the service and what service related factors they consider most important. Publication of this information on a regular and timely basis would increase transparency and accountability and would address some of the concerns raised with us in this review. Further, we recommend that TfNSW should consult passengers in its survey development.

This appendix provides a summary of performance reported by operators over the 2010-2013 determination period, focussing on performance in 2012/13.<sup>121</sup>

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<sup>120</sup> The 2012 passenger survey was undertaken by the Bureau of Transport Statistics. In 2013 TfNSW took on responsibility for the passenger survey.

<sup>121</sup> More detailed analysis of performance in other years may be found on our website in our annual prices and services reports. See [www.ipart.nsw.gov.au](http://www.ipart.nsw.gov.au)

## E.1 Summary of performance outcomes for 2012/13

TfNSW has provided data<sup>122</sup> that shows:

- ▼ The number of timetabled services increased by 1.2% overall, higher in both metropolitan and outer metropolitan contract areas compared with 2011/12.
- ▼ On-time running KPIs were met in half of the 14 metropolitan contract regions and all of the 10 outer metropolitan regions:
  - On time running is measured at key transport hubs in metropolitan regions (so relates to various points during a journey) whereas in outer metropolitan regions it is measured as buses leaving the depot on time.
  - On time running improved in the majority of metropolitan regions but varied considerably on a month by month basis.
  - On-time running, as measured by the number of buses leaving the depot on time, remained at similar levels to 2011/12 in the outer metropolitan regions.
- ▼ The number of services reported as incomplete or cancelled was low and within the required standard for all operators:
  - 0.21% of trips across metropolitan regions
  - 0.01% of trips across outer metropolitan regions.
- ▼ Wheelchair accessibility has increased:
  - The proportion of buses that is wheelchair accessible is higher in metropolitan regions (77% on average) than in outer metropolitan regions (50% on average) but is rising for all contract regions.
  - The majority of timetabled services are wheelchair accessible according to the timetable.
- ▼ There was an average of 18 complaints per 100,000 boardings across the metropolitan contract regions and 27 complaints per 100,000 boardings across outer metropolitan regions.

## E.2 Number of timetabled services and service kilometres

In 2012/13 the number of timetabled bus services and service kilometres grew. This is part of a rising trend in both metropolitan and outer metropolitan regions over the past few years (Figure E.1).

In 2012/13 there were:<sup>123</sup>

- ▼ 8.4 million bus services were timetabled in the metropolitan bus regions:
  - a 0.8% increase compared with 2011/12
  - a 7% increase since 2009/10

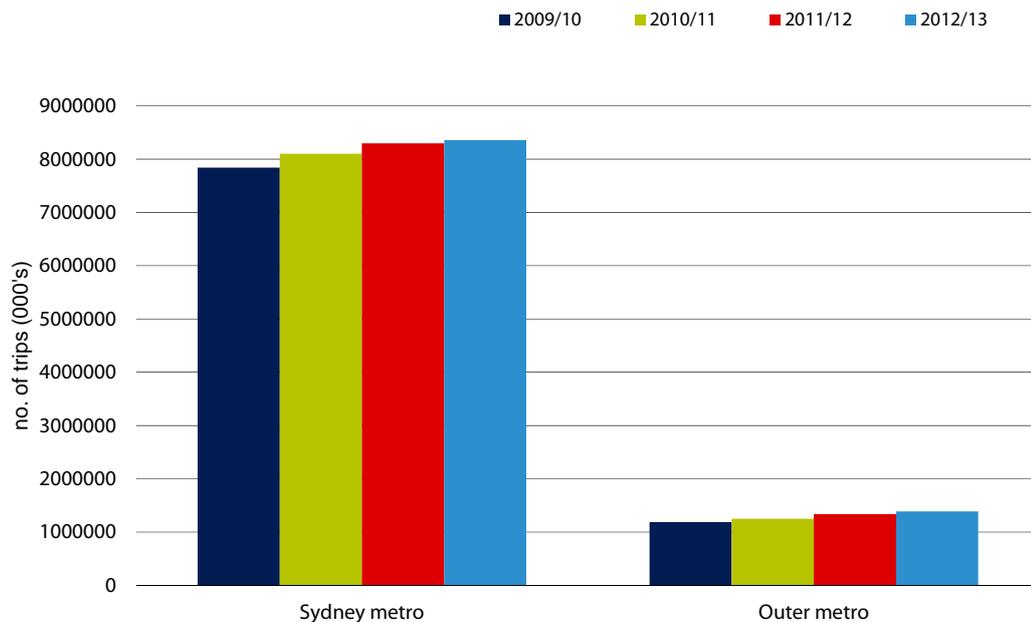
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<sup>122</sup> Data provided to IPART from TfNSW, 10 September 2013.

<sup>123</sup> Data provided to IPART from TfNSW, 10 September 2013.

- ▼ 1.4 million bus services timetabled in the outer metropolitan bus regions:
  - a 4% increase on 2011/12
  - a 17% increase since 2009/10.

**Figure E.1 Timetabled bus services 2009/10 to 2012/13**



**Data source:** Transport for NSW.

In 2012/13 there were:

- ▼ 128.7 million kilometers of bus services were timetabled in the metropolitan bus regions:
  - a 1.6% increase since 2011/12
  - a 15% increase since 2009/10.
- ▼ 28.7 million kilometers of bus services scheduled in the outer metropolitan bus regions:
  - reflecting a slight reduction since 2011/12
  - a 17% increase since 2009/10.

### E.3 On-time running

The NSW Government's 2021 plan sets a target of 95% of Sydney buses running on time across the network.<sup>124</sup> This standard is also reflected in the current bus service contracts.

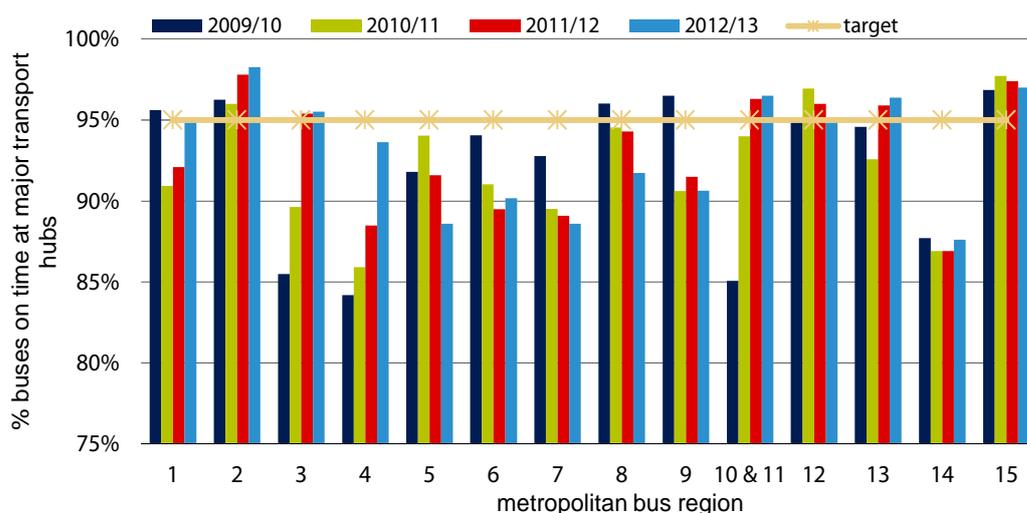
<sup>124</sup> NSW Government, *NSW 2021*, September 2011.

On-time running KPIs were met in 6 of the 14 metropolitan contract regions but were met in all of the 10 outer metropolitan regions. However, measurement of compliance with the standard is more stringent in metropolitan regions than in outer metropolitan regions. In metropolitan regions, TfNSW has independent surveyors carry out checks of metropolitan bus service departures at major transport hubs across the Sydney Region and operators' review and sign off on monthly data. In outer metropolitan regions operators report only on whether buses left the depot on time.

### E.3.1 Metropolitan contract regions

Figure E.2 shows the average percentage of buses on time<sup>125</sup> by metropolitan contract region.

**Figure E.2 On-time running by metropolitan bus contract regions, 2010/11 to 2012/13**



**Note:** Performance is not measured in January. In 2009/10 information was collected separately for regions 10 and 11 and the 2009/10 figure in this chart for this region reflects performance in region 10 only.

**Data source:** Transport for NSW.

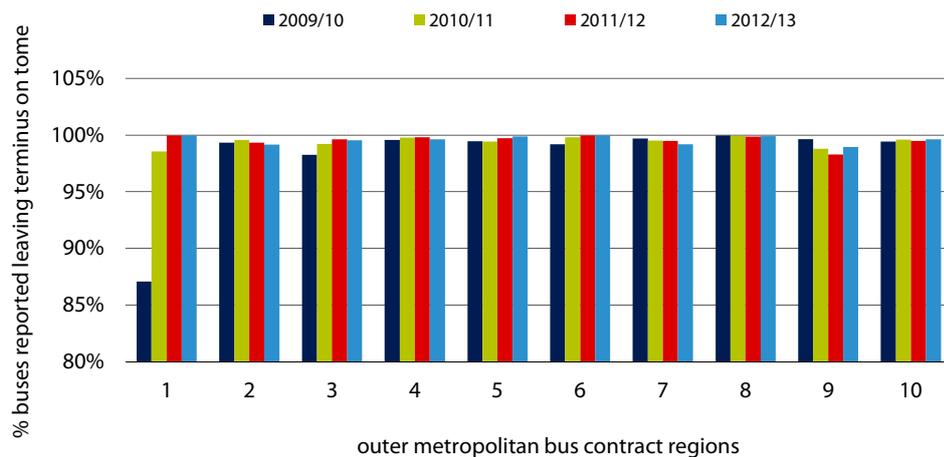
<sup>125</sup> The 2013 Sydney Metropolitan Bus Contract defines on time as a bus departing a Transit Stop no more than 1 minute 59 seconds early and no more than 5 minutes 59 seconds late compared to Timetable and for Headway Trips means commencing each Headway Trip within 5 minutes 59 seconds of published Headway. Where Contract Buses link with train services in the Timetable, time is measured from when passengers arrive at the Transit Stop.

### E.3.2 Outer metropolitan contract regions

In outer metropolitan bus regions on-time running is measured by operators' reporting the incidence of buses leaving the terminus early or late. This is limited as a measure of service outcomes for passengers. While we recognise that there is a cost of collecting actual data, we do not consider on-time running measured solely at the trip's origin to be a good indicator of the bus network's actual on-time running performance or the level of service actually experienced by passengers.<sup>126</sup> We note that buses can run early and late at different points throughout a journey but that this is not captured.

In each outer metropolitan region 99% or more services were reported to have left the terminus on time, well above the target of 95% (Figure E.3).

**Figure E.3 Buses reported leaving the terminus on time, outer metropolitan bus contract regions, 2009/10 to 2012/13**



**Note:** In 2009/10, TfNSW identified that Region 1 had applied a different definition of this measure to other regions and its results were not able to be compared to other regions. From 2010/11 Region 1 applied a definition consistent with other regions.

**Data source:** Transport for NSW.

<sup>126</sup> IPART, *Review of fares for metropolitan and outer metropolitan bus services from 2 January 2008, December 2007* and IPART, *Review of fares for metropolitan and outer metropolitan services from January 2010 - Final Report, December 2009*, p 49.

#### E.4 Proportion of services incomplete or cancelled

The number of services reported as incomplete or cancelled is very low and within the required standard for all operators. In 2012/13 in the metropolitan bus contract regions 0.21% of services were incomplete or cancelled (that is, 99.79% ran in their entirety). In the outer metropolitan regions 0.01% of bus services were cancelled or not completed. Most outer metropolitan regions report that 0% of services were incomplete or cancelled.

#### E.5 Wheelchair accessibility

Wheelchair accessibility has increased. The proportion of buses that is wheelchair accessible is higher in metropolitan regions (77% on average) than in outer metropolitan regions (50% on average) but is rising for all contract regions. The majority of timetabled services are wheelchair accessible according to the timetable.

The TfNSW Disability Action Plan 2012 provides:<sup>127</sup>

- ▼ Buses that do not comply with the Transport Standards under the *Disability Discrimination Act 1992* are progressively being replaced with accessible buses built to design standards that have been tested by customers with disabilities and comply with Transport Standards under the Disability Discrimination Act.
- ▼ All operators of contracted bus services are required to comply with Transport Standards under the Disability Discrimination Act and produce a Disability Action Plan (p 12). Operators are required to report on progress against accessible targets and these reports will be available to the public.
- ▼ Accessible buses will be placed on priority routes and timetabled accessible services will be expanded as buses become available.

The proportion of the fleet that is wheelchair accessible has been steadily increasing over the last few years (Figure E.4 and Figure E.5). All new growth and replacement buses are wheelchair accessible.<sup>128</sup>

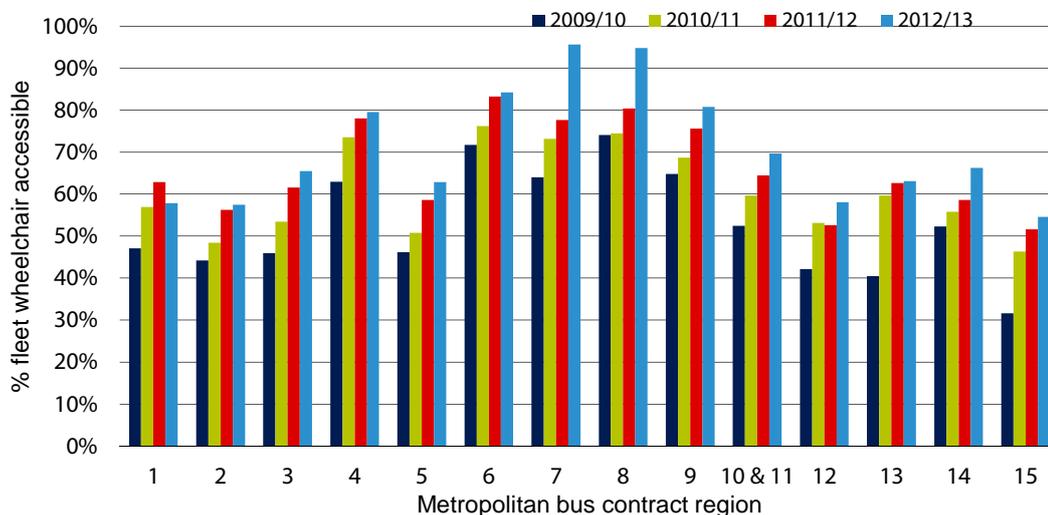
77% of buses in the metropolitan contract areas are now wheelchair accessible (up from 59% in 2009/10). In some regions this is now over 95% of buses.

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<sup>127</sup> Transport for NSW Disability Action Plan 2012-2017, accessed 4 September 2013 <http://www.transport.nsw.gov.au/sites/default/files/b2b/publications/tfnsw-disability-action-plan-2012-2017.pdf> pp 6, 12.

<sup>128</sup> Correspondence with Transport for NSW, December 2011.

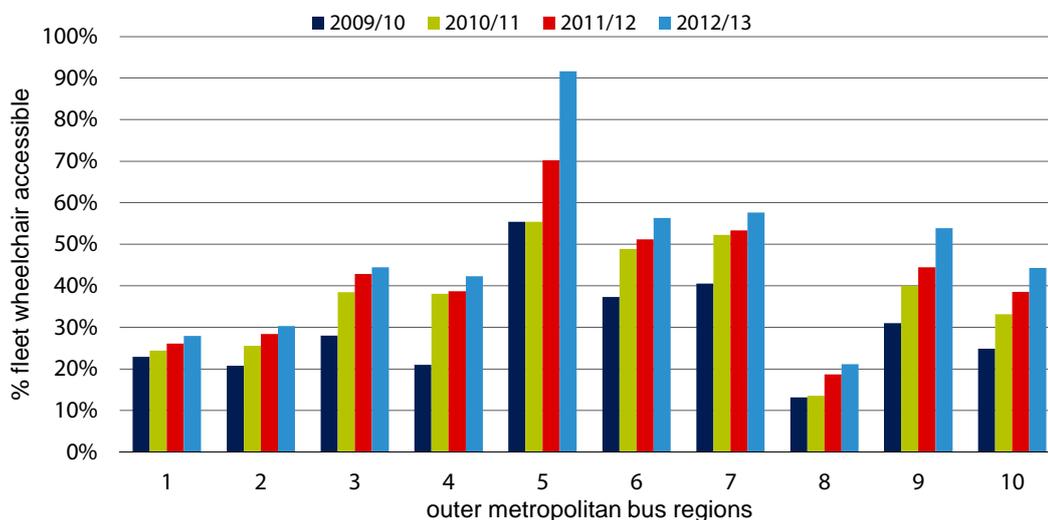
**Figure E.4 Proportion of bus fleet that is wheelchair accessible, metropolitan bus contract regions, 2009/10 to 2012/13**



Data source: Transport for NSW.

Figure E.5 presents data on the proportion of fleet that is wheelchair accessible for the outer metropolitan regions.

**Figure E.5 Proportion of bus fleet that is wheelchair accessible, outer metropolitan bus contract regions, 2009/10 to 2012/13**

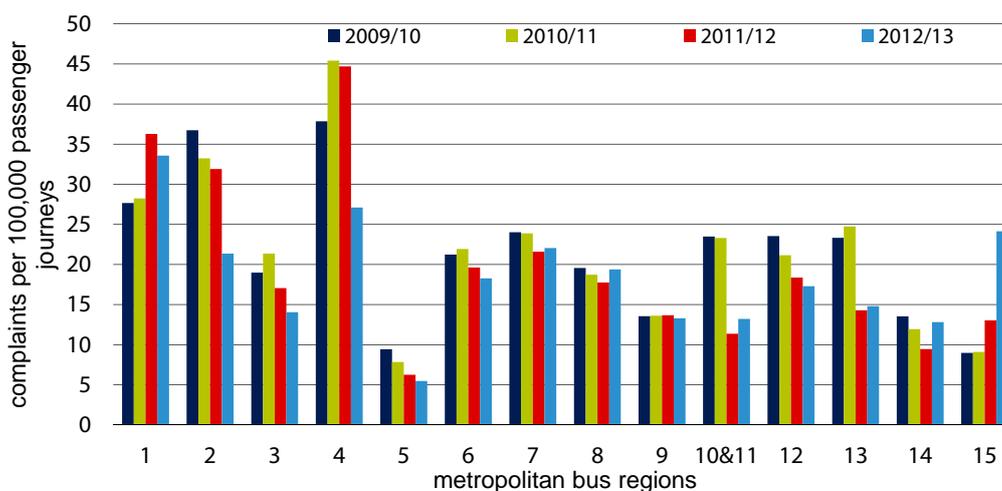


Data source: Transport for NSW.

## E.6 Customer feedback

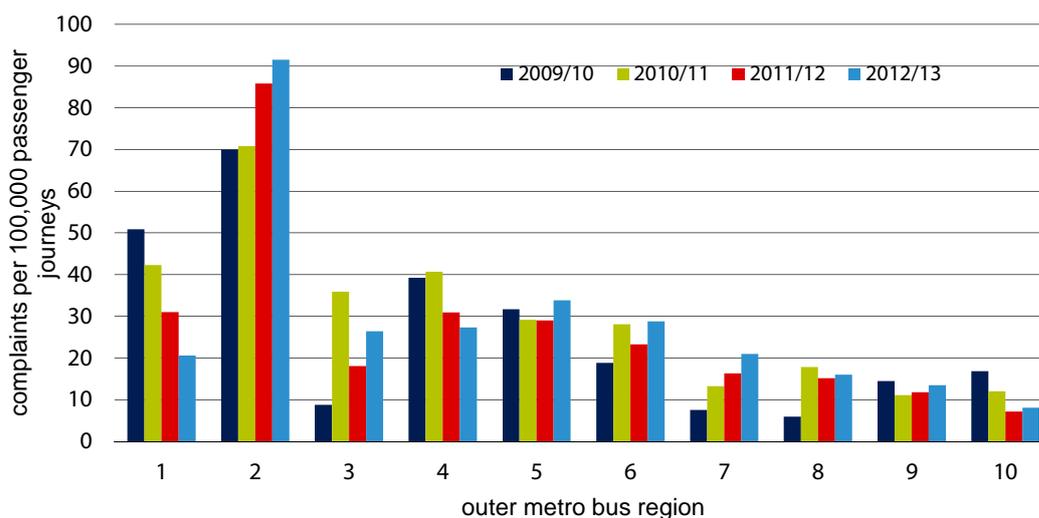
In 2012/13 there was an average of 18 complaints per 100,000 boardings across the metropolitan contract regions. On average there were 27 complaints per 100,000 boardings across outer metropolitan regions (Figure E.6 and Figure E.7).<sup>129</sup>

**Figure E.6 Complaints in metropolitan bus regions, 2009/10 to 2012/13**



Data source: Transport for NSW.

**Figure E.7 Complaints in outer metropolitan regions, 2009/10 to 2012/13**



Data source: Transport for NSW.

<sup>129</sup> Data provided to IPART from Transport for NSW, 10 September 2013.

Almost half of all feedback (47%) in the metropolitan regions and a third (33%) in the outer metropolitan regions concerned bus reliability (bus late, missed stop bus failed to operate and bus too early).

## F Process for changing fares

Chapter 7 explained our final decision on fares. Fares can increase by an average of 0.5% above CPI each year.

Transport for NSW (TfNSW) will set fares for individual tickets so that the average fare increase is equal to, or below 0.5% above CPI. It must submit the new ticket prices to IPART in a pricing proposal.

This section explains the process for ensuring that the individual fares proposed by TfNSW comply with our determination, including:

- ▼ the timing for fare changes
- ▼ what we require from TfNSW before fares can change
- ▼ calculating the change in fares when substantial changes are made to fare structure.

### F.1 When can fares change?

Under our determination, TfNSW can change fares at any time up to the maximum average increase allowed by IPART, however we expect normally that fares would change only once a year. Typically, public transport fares (bus, rail and ferries) change each January. However, as the Opal card is rolled out on buses, other one off changes may be made.

Table F.1 shows the timing for a January 2014 fare change.

**Table F.1 Compliance process for a January 2014 fare change**

	Date <sup>a</sup>
TfNSW submits its pricing proposal to IPART	4 December 2013 <sup>a</sup>
IPART approves the new fares where they comply with the determination and publishes the new fares on its website	20 December 2013
New fares apply	5 January 2014

<sup>a</sup> Or other data approved by IPART.

## F.2 Pricing proposals

TfNSW is required to submit all proposed fare changes to IPART before fares can change, including when any new fares are introduced, or when any fares are removed.<sup>130</sup>

Pricing proposals must be received by IPART 20 business days before a proposed change and approved by IPART before the changes apply. We will publish the proposed fares on our website.

We will review compliance in order to ensure that fare levels do not exceed the increases allowed under our determination.

For the annual fare changes, we check that the fares proposed by TfNSW comply with the determination by:

- ▼ calculating the revenue in the current year (current price multiplied by the current number of ticket sales<sup>131</sup>)
- ▼ calculating the revenue in the next year (proposed prices also multiplied by the **current** number of ticket sales)
- ▼ making sure the difference does not exceed 0.5% plus CPI.

An example of how we do this is provided in Chapter 7.

For one off fare changes, we make sure that the revenue in the current year does not exceed the revenue in the previous year by more than 0.5% above CPI (using the ticket sales **for the previous year**).

If TfNSW increases fares by **less** than 0.5% above CPI, in the following year TfNSW can increase fares up to the average fare that would have been charged had TfNSW increased fares by the maximum increase.

If the fares submitted by TfNSW do not comply with our determination we will notify TfNSW and publish a report on our website. It is TfNSW's role to ensure that the bus operators comply with our determination.

<sup>130</sup> Pricing proposals will be not required for the introduction of a 'trial product'. Where a trial fare is introduced, the Government should notify IPART of the trial fare, its conditions of use, and the forecast revenue impacts.

<sup>131</sup> The number of ticket sales is based on the number of boardings. For example, one boarding on a single ticket is equivalent to one ticket sold, and 10 boardings on a MyBus TravelTen are equivalent to one ticket sold.

### **F.2.1 Information that should be provided in the pricing proposal**

The pricing proposal should explain the reasons for any large relative movements in individual fares and the impact on customers. It should also set out the medium term directions for prices and standards of service. This will allow current and potential users to take account of prices and service standards in their usage and locational decisions.

When TfNSW proposes to introduce or removes fares, TfNSW should explain the changes, and include:

- ▼ details of any proposed new fare, including the routes on which it is valid, the number of journeys included on the fare, the period for which it is valid, and any other conditions of use
- ▼ details of any removed fare
- ▼ information on how the addition or removal of fares will affect the number of journeys made on other fares
- ▼ forecast revenue impacts.

We consider that TfNSW should consider the following pricing principles when it sets the individual fares: simplicity, cost reflectivity, revenue sufficiency, price signalling, consistency with existing fares and equity.

### **F.3 Weightings for proposed fares when there are substantial changes to fares**

#### **F.3.1 Adding and removing fares**

For the introduction of any new fares, we will require TfNSW to make a reasonable estimate of the number of journeys that would have been taken in the previous financial year had the fare existed. TfNSW should reasonably reallocate existing journeys taken in the previous year from other tickets, so that the total number of journeys taken on buses is held constant across the 2 periods.

Similarly, if a fare is removed, TfNSW should reallocate those journeys that were taken on that fare to fares that would have been used had the ticket not existed.

The reallocations of journeys must be approved by IPART.

### **F.3.2 Substantial changes in the relativities between fares**

If the ticket types do not change between price changes, fares should be weighted by the number of journeys in the most recent financial year. However, if the relativities between fares after the price change are significantly altered, some passengers may switch between ticket types. For example, if the MyMulti DayPass reduced below the price of a return fare, many passengers may switch from buying the return fare to the MyMulti DayPass. In this hypothetical situation it would be appropriate to reallocate journeys made on return tickets to journeys made on the MyMulti DayPass.

An explanation of the substitution between fares must be provided, and the new weighting must be approved by IPART. The reallocations of journeys must be approved by IPART.

