

Independent Pricing and Regulatory Tribunal
New South Wales

Review of maximum fares for private ferry services

Fares to apply from 1 January 2018 to 31 December 2021



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The Tribunal members for this review are:

Dr Peter J Boxall AO, Chair

Mr Ed Willett

Ms Deborah Cope

Inquiries regarding this document should be directed to a staff member:

Jenny Suh (02) 9113 7775

Patrick Lam (02) 9290 8448

Invitation for submissions

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

Submissions are due by 10 August 2017

We would prefer to receive them electronically via our online submission form <www.ipart.nsw.gov.au/Home/Consumer_Information/Lodge_a_submission>.

You can also send comments by mail to:

Review of maximum fares for private Ferries
Independent Pricing and Regulatory Tribunal
PO Box K35
Haymarket Post Shop NSW 1240

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



Contents

1	Introduction	1
1.1	What does this review involve?	1
1.2	How will we conduct this review?	1
1.3	How is the rest of this paper structured?	2
1.4	What are the issues we seek comment on?	3
2	Context for the review	4
2.1	Matters we must consider in determining maximum fares	4
2.2	Current maximum fares	5
2.3	How maximum fares have changed since 2014	5
3	Our approach for the review	8
3.1	Overview of our approach	8
3.2	Step 1: Assess current levels of competition	9
3.3	Step 2: Invite ferry operators to propose fares	11
3.4	Step 3: Assess pricing proposals	12
3.5	Step 4: Determine a risk management mechanism for all operators	14
4	Ferry operators' pricing proposals	16
4.1	Pricing proposals from ferry operators	16
4.2	Our proposed next step	17
	Appendices	18
A	Referral for the review	20
B	IPART building block approach	21
C	Weighted Average Cost of Capital (WACC)	26

1 Introduction

IPART has begun a review to determine maximum fares for seven private ferry operators that hold service contracts with Transport for NSW (TfNSW) under the *Passenger Transport Act 1990*. Each operator services a distinct route or routes in the Sydney, Central Coast and North Coast areas of NSW (Table 1.1). Operators may charge less than the determined maximum fare, if they wish.

Table 1.1 Private ferry services covered by IPART’s review

Ferry operator	Routes
Brooklyn Ferry Service	Brooklyn to Dangar Island
Central Coast Ferries	Woy Woy to Empire Bay
Church Point Ferry Service	Scotland Island and western foreshore of Pittwater
Clarence River Ferries	Iluka to Yamba
Cronulla and National Park Ferry Service	Cronulla to Bundeena
Matilda Cruises	Circular Quay to Darling Harbour Circular Quay to Lane Cove
Palm Beach Ferries	Palm Beach to Mackerel Beach and the Basin Palm Beach to Ettalong and Wagstaffe

1.1 What does this review involve?

For many years, we have reviewed and **recommended** maximum fares each year for private ferry operators. While our key role remains the same, there are two main changes. For this year’s review:

- ▼ We are required to **determine** maximum fares. In our previous reviews, we only recommended maximum fares, and the Secretary of Transport for NSW (TfNSW) was responsible for making the final decision on these fares and the date the new maximum fares took effect.
- ▼ We are required determine maximum fares **for four years** from 1 January 2018 to 31 December 2021. In our previous reviews, we reviewed and recommended maximum fares each year.

1.2 How will we conduct this review?

To conduct the review, we will do research and analysis, obtain expert advice and undertake public consultation. We have appointed a consultant, The Centre for International Economics (CIE), to investigate and provide advice on the efficient costs of providing private ferry services in NSW. In May we invited ferry operators to propose fares and received pricing proposals from all operators except for Clarence River Ferries. We will assess the ferry operators’ pricing proposals and determine maximum fares. As Clarence

River Ferries did not propose fares, we propose to estimate efficient fares and determine the maximum fares using our decision framework (see Chapter 3).

This Issues Paper is the first step in our public consultation process. It explains our proposed approach for determining fares, summarises ferry operators' pricing proposals, and identifies the key issues on which we seek stakeholder input. We invite all interested stakeholders to make submissions in response to the Issues Paper by 10 August 2017. Page iii (at the front of the paper) explains how to make a submission.

Once we have completed our analysis and considered the advice and submissions we receive, we will release a Draft Report that explains our draft determination and seek further submissions. We will also hold a public roundtable to provide stakeholders with another opportunity to comment on the Draft Report.

We will consider all submissions and public forum comments on the Draft Report before releasing our Final Report in December.

Table 1.2 sets out an indicative timetable for the review. We will update this timetable on our website as the review progresses.

Table 1.2 Indicative timetable for the review

Key milestone	Proposed timing
Invite ferry operators to propose fares	25 May 2017
Receive pricing proposals	22 June 2017
Release Issues Paper	29 June 2017
Receive submissions to Issues Paper (closing date)	10 August 2017
Release Draft Report	September 2017
Hold Public Roundtable	October/November 2017
Receive submissions to Draft Report (closing date)	October/November 2017
Release Final Report and Determination	December 2017

1.3 How is the rest of this paper structured?

The following chapters provide more information on the review, our proposed approach and the issues we will consider:

- ▼ Chapter 2 outlines the context for the review, including the matters we are required to consider, and how maximum fares have changed since 2014.
- ▼ Chapter 3 explains our proposed approach for determining maximum fares.
- ▼ Chapter 4 summarises the pricing proposals submitted by private ferry operators.

Each chapter identifies the issues on which we particularly seek stakeholder comment. For convenience, these issues are also listed below.

1.4 What are the issues we seek comment on?

- 1 Do you agree with our assessment of the level of competition on routes covered by private ferry services? If not, why? 11
- 2 Are there other factors we should consider in assessing competition faced by private ferry services? 11
- 3 Do you agree with our preliminary decision to adopt a light-handed approach for Central Coast Ferries and Matilda Cruises, and a more rigorous approach for the remaining five operators? If not, why? 12
- 4 Do you agree we should determine the maximum fares for an adult single ticket only? 12
- 5 Do you agree with our proposed approach to assessing proposed fares or estimating efficient fares? 14
- 6 Should maximum fares be reduced if they are above efficient fares? 14
- 7 Do you agree with our proposed approach for adjusting maximum fares based on the change in fuel costs? Do you agree the threshold of $\pm 10\%$ is reasonable? 15
- 8 Are there any costs, other than fuel cost, which are outside the control of ferry operators that we should account for in designing risk management mechanisms? 15
- 9 For Central Coast Ferries and Matilda Cruises, do you agree with their proposals to increase maximum fares each year by the change in the CPI? 17
- 10 Do you agree with the proposed maximum fares from Brooklyn Ferry Service, Church Point Ferry Service, Cronulla and National Park Ferry Service and Palm Beach Ferries? If not why? 17
- 11 As Clarence River did not propose fares, do you agree that we should estimate efficient fares and then use our decision framework (see Section 3.4.2) to determine the maximum fares? 17

2 Context for the review

As Chapter 1 noted, this year IPART is required to **determine** the maximum fares¹ for the seven private ferry operators for the four years from 1 January 2018 to 31 December 2021. The Final Report and Determination on the maximum fares are to be provided to the Minister for Transport and Infrastructure. After IPART determines the maximum fares, TfNSW could make a fare order setting out the maximum fares that the seven ferry operators can charge. If TfNSW makes such an order, the fares set out in that order cannot exceed the maximum IPART determined fares and must follow the IPART maximum fares methodology.

This review does not cover fares for Sydney and Stockton Ferry services, as we determine those fares as part of our Opal fares review.² It also does not cover the discount applied to concession tickets, or the cost or availability of the Pensioner Excursion Ticket (PET) and Opal Gold, as those are matters for the NSW Government.

The sections below outline the matters we are required to consider in determining maximum fares in this review, set out the current maximum fares and discuss how these fares have changed since 2014.

2.1 Matters we must consider in determining maximum fares

The referral we received from the Minister for Transport and Infrastructure for this review specified that, in making our determination, we must consider the matters in section 124 of the *Passenger Transport Act 2014*. These include:

- ▼ the cost of providing the services
- ▼ the need for greater efficiency in the supply of services so as to reduce costs for the benefit of consumers and taxpayers
- ▼ the protection of consumers from abuses of monopoly power in terms of prices, pricing policies and standards of service
- ▼ the social impact of the determination or recommendation
- ▼ the impact of the determination or recommendation on the use of the public passenger transport network and the need to increase the proportion of travel undertaken by sustainable modes such as public transport
- ▼ standards of quality, reliability and safety of the services (whether those standards are specified by legislation, agreement or otherwise), and
- ▼ the effect of the determination or recommendation on the level of Government funding.

¹ Where IPART is required to determine the maximum fares, IPART may do this by fixing the maximum fares or may set a methodology to fix the maximum fares

² <https://www.ipart.nsw.gov.au/Home/Industries/Transport/Opal-fares> accessed 19 May 2017.

In addition, we are required to consider the pricing of competing modes of transport, including the pricing of Sydney Ferries. Our referral letter is at Appendix A.

2.2 Current maximum fares

Table 2.1 lists the current maximum fares for each of the private ferry services covered by this review. Operators may charge less than the determined maximum fare, and Central Coast Ferries and Matilda Cruises currently do.

Table 2.1 Private ferry services included in IPART’s review (\$nominal, including GST)

Ferry operator	Routes	IPART maximum fare from 1 January 2017
Brooklyn Ferry Service	Brooklyn to Dangar Island	\$7.30
Central Coast Ferries	Woy Woy to Empire Bay	\$7.80
Church Point Ferry Service	Scotland Island and western foreshore of Pittwater	\$8.30
Clarence River Ferries	Iluka to Yamba	\$8.30
Cronulla and National Park Ferry Service	Cronulla to Bundeena	\$6.40
Matilda Cruises	Circular Quay to Darling Harbour	\$7.40
	Circular Quay to Lane Cove	\$7.40
Palm Beach Ferries	Palm Beach to Mackerel Beach and the Basin	\$8.10
	Palm Beach to Ettalong and Wagstaffe	\$11.60

Source: IPART, Review of maximum fares for private ferry services in 2017, December 2016, p 2.

2.3 How maximum fares have changed since 2014

Prior to the 2014 review, we used cost indices to make our fare recommendations. This meant that each year, the private ferry operators’ maximum fares were adjusted based on how the cost index had changed over the previous year – without considering whether their fares were efficient.

Beginning in 2014, we have moved to a new approach. For private ferry operators charging our recommended maximum fares, we analysed the efficient level of costs involved in providing each ferry operator’s services in the coming year, using a building block approach (see Appendix B). This allowed us to establish the efficient fares for each operator.³

We then assessed whether the current maximum fares for the operator were higher or lower than its efficient fares. We recommended new maximum fares that transitioned towards the efficient fares, taking into account the impact of the transition on ferry operators’ revenues and passengers. Our general approach was that:

- ▼ where the current maximum fare was **below** the efficient fare, we recommended a fare increase.

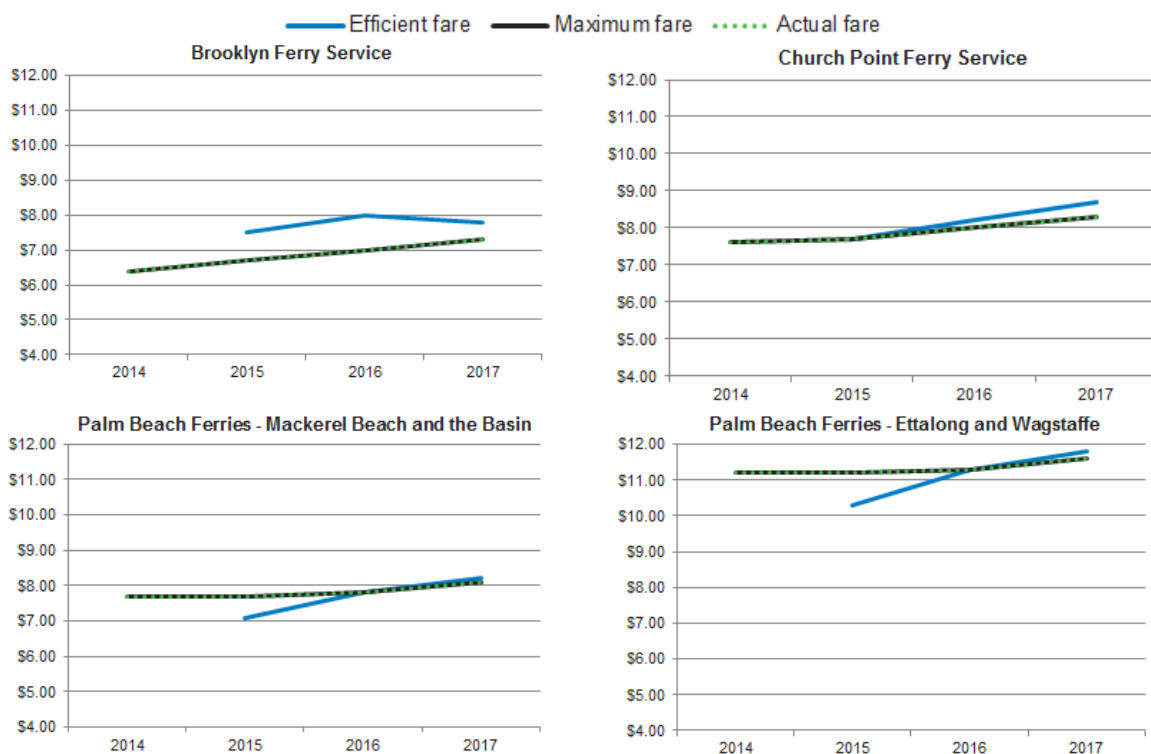
³ The efficient fares are those that allow the operator to recover the efficient costs over the year.

- ▼ where the current maximum fare was **above** or **at** the efficient fare, we recommended no change from the current maximum fare.

However, we used a different approach for Central Coast Ferries and Matilda Cruises. Central Coast Ferries (from January 2015) and Matilda Cruises (from January 2014) have been charging fares below our recommended maximum fares. We considered that fares for these operators were being determined by the competitive market, and decided not to estimate efficient fares as market-determined fares are likely to be a better estimate of an efficient fare compared to our estimates. Hence we recommended no change to the maximum fares for Central Coast Ferries and Matilda Cruises.

Figure 2.1, Figure 2.2 and Figure 2.3 show how the maximum fares, the efficient fares and the actual fares (charged by ferry operators) have changed since 1 January 2014. For Brooklyn Ferry Service, Church Point Ferry Service and Palm Beach Ferries, the maximum fares have moved close to the efficient fare level over this time (Figure 2.1).

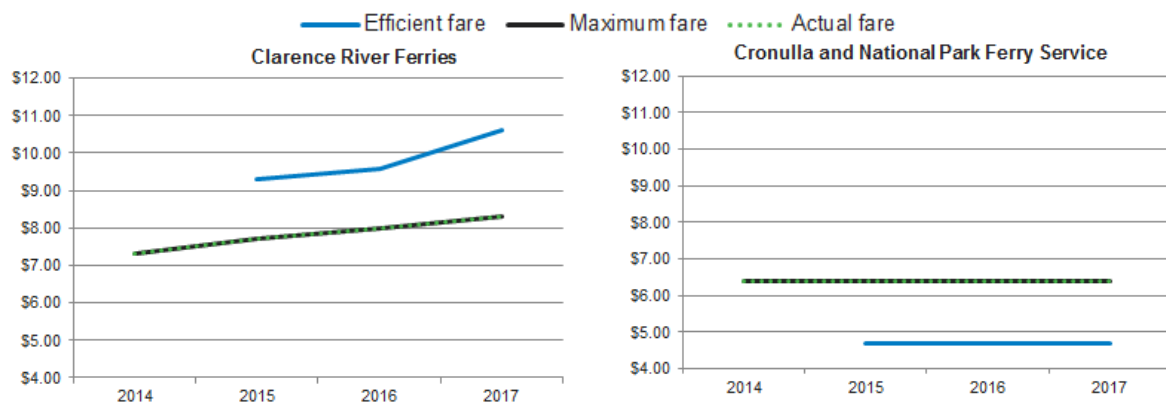
Figure 2.1 Efficient fares, maximum fares and actual fares since 1 January 2014 – Brooklyn Ferry Service, Church Point Ferry Service and Palm Beach Ferries (\$nominal, including GST)



Data source: IPART, Review of maximum fares for private ferry services and the Stockton ferry service for 2015, Final report, December 2014, p 2; IPART, Review of maximum fares for private ferry services in 2016, Final report and recommendations, December 2015, p 2; IPART, Review of maximum fares for private ferry services in 2017, December 2016, p 2; IPART analysis.

For Clarence River Ferries and Cronulla and National Park Ferry Service, the maximum fares are still quite different, and we will consider the pace of transitioning in this review (Figure 2.2).

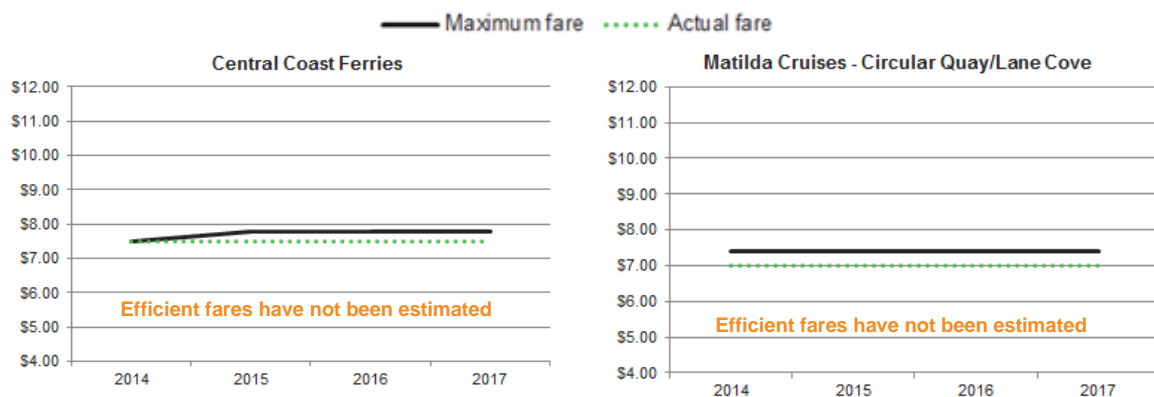
Figure 2.2 Efficient fares, maximum fares and actual fares since 1 January 2014 – Clarence River Ferries and Cronulla and National Park Ferry Service (\$nominal, including GST)



Data source: IPART, Review of maximum fares for private ferry services and the Stockton ferry service for 2015, Final report, December 2014, p 2; IPART, Review of maximum fares for private ferry services in 2016, Final report and recommendations, December 2015, p 2; IPART, Review of maximum fares for private ferry services in 2017, December 2016, p 2; IPART analysis.

Figure 2.3 shows that Central Coast Ferries and Matilda Cruises have been charging below our recommended maximum fares for several years. We did not determine efficient fares for these operators, as their fares are set in a competitive market.

Figure 2.3 Maximum fares and actual fares since 1 January 2014 – Central Coast Ferries and Matilda Cruises (\$nominal, including GST)



Data source: IPART, Review of maximum fares for private ferry services and the Stockton ferry service for 2015, Final report, December 2014, p 2; IPART, Review of maximum fares for private ferry services in 2016, Final report and recommendations, December 2015, p 2; IPART, Review of maximum fares for private ferry services in 2017, December 2016, p 2; IPART analysis.

3 Our approach for the review

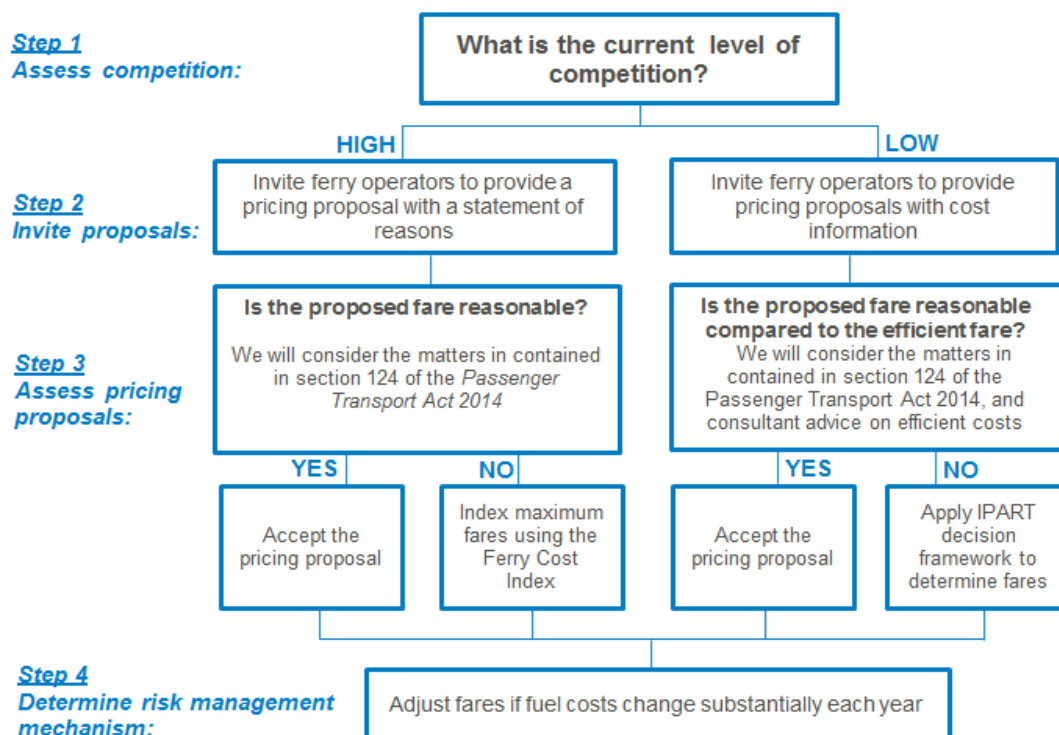
We have developed an approach to guide our analysis and decision-making for this review. The approach ensures we consider all the matters specified in the Act and the Minister’s referral outlined in Chapter 2. The sections below provide an overview of the approach and each of its key steps.

3.1 Overview of our approach

Our approach consists of the following four steps, illustrated in Figure 3.1:

1. For each ferry operator, assess the level of competition for customers on the routes it services.
2. Invite each ferry operator to submit a pricing proposal. The level of information required in this proposal will differ depending on the assessed level of competition.
3. Assess whether each pricing proposal is reasonable. If it is reasonable, we will accept the proposal and determine maximum fares in line with it. If it is considered not reasonable, we will apply an alternative approach to determine maximum fares.
4. For all operators, determine a mechanism to manage risks over the determination period.

Figure 3.1 Proposed approach for the review



3.2 Step 1: Assess current levels of competition

As the first step in our approach, we have assessed the level of competition on the routes covered by each private ferry operator. The private ferry businesses affected by the review service different routes, and the level of competition may differ by route. The level of competition is important, as it strongly influences the form of regulation needed to protect the customers who may use the ferry services.

In general, price regulation is only required in a monopoly market, where lack of competition can lead to higher prices and poorer service outcomes. But, in competitive markets, customers can choose between a range of comparable services from other ferry services and different modes of transport, and this means operators are unlikely to be able to charge fares higher than their efficient costs. If they were to do so, they would lose customers to their competitors. Competitive markets are likely to deliver benefits to customers beyond those that can be achieved through fare regulation.

For this Issues Paper, we researched the competition on each of the private ferry routes covered in the review. We focused on identifying other ferry services and/or alternative modes of transport competing with each private ferry operator, and the difference between the operator's actual fares and the 2017 maximum fares recommended by IPART.

We concluded that Matilda Cruises and Central Coast Ferries face a high level of competition for customers. The other operators – Brooklyn Ferry Service, Church Point Ferry Service, Clarence River Ferries, Cronulla and National Park Ferry Service, and Palm Beach Ferry Service – face little or no competition for customers on the routes they service.

3.2.1 Matilda Central and Central Coast Ferries face a high level of competition

We found that that the level of competition from other ferry services and/or alternative modes of transport varies considerably by ferry route (Table 3.1):

- ▼ Matilda Cruises, which operates in Sydney Harbour, faces a high level of competition for customers from other ferry services and other modes of public transport, as well as from cars.
- ▼ Central Coast Ferries also faces a relatively high level of competition from buses (which have a similar travel time and low fare), and from cars.
- ▼ The remaining five operators face little or no competition for customers. For Brooklyn Ferries, there is no alternative transport option other than private boat. Also, Scotland Island (serviced by Church Point Ferry Service) is water-access only, and can only be reached by ferry, water taxi or private boat. For other operators, there is no alternative public transport mode, and travel by car involves significantly longer travel times.

Table 3.1 Alternative travel options for the ferry routes covered by this review

Ferry operator	Routes	Ferry travel time	Alternative travel option?
Brooklyn Ferry Service	Brooklyn to Dangar Island	30 mins	Private boat
Central Coast Ferries	Woy Woy to Empire Bay	30 mins	<ul style="list-style-type: none"> ▼ Travel option: bus; car ▼ Travel time: around 35 mins by bus; 14 minutes by car (8.7 km) ▼ Bus fare: \$3.50 per adult ▼ Frequency: every hour before 12 pm and after 4:30 pm, every 30 mins from 1 pm to around 4:30 pm
Church Point Ferry Service	Scotland Island and western foreshore of Pittwater	~ 25 mins ^a	<ul style="list-style-type: none"> ▼ Travel option: car (except for Scotland Island); private boat (for Scotland Island) ▼ Travel time: 24 mins (14.5 km)^a
Clarence River Ferries	Iluka to Yamba	30 mins	<ul style="list-style-type: none"> ▼ Travel option: bus; car ▼ Travel time: 40 mins (direct) to 1 hour and 20 mins (transfer required) by bus; 34 mins (39 km) by car ▼ Bus fare: \$4.84 to \$6.92 (direct)^b; around \$19 (indirect)^c ▼ Frequency: direct service once at around 7:30 am and indirect service once at around 5 pm
Cronulla and National Park Ferry Service	Cronulla to Bundeena	34 mins	<ul style="list-style-type: none"> ▼ Travel option: car ▼ Travel time: 46 mins (35 km)
Matilda Cruises	Circular Quay to Darling Harbour Circular Quay to Lane Cove		Numerous travel options
Palm Beach Ferries	Palm Beach to Mackerel Beach and the Basin	30 mins	<ul style="list-style-type: none"> ▼ Travel option: car ▼ Travel time: 48 mins (35 km)^d
	Palm Beach to Ettalong and Wagstaffe	30 mins	<ul style="list-style-type: none"> ▼ Travel option: car ▼ Travel time: 1 hour 50 mins (107 km)^e

^a Travelling between Church Point Wharf, Pittwater and Lovett Wharf, Lovett Bay

^b Bus no. 144 operated by NSW TrainLink.

^c Bus no. 386 operated by Busways Grafton (\$12.30) and Bus no.143 operated by NSW TrainLink (\$6.92).

^d Travelling between Palm Beach Wharf, Palm Beach and Mackerel Beach Wharf, Great Mackerel Beach.

^e Travelling between Palm Beach Wharf, Palm Beach and Wagstaffe Wharf, Wagstaffe.

3.2.2 Only Central Coast Ferries and Matilda Cruises currently charge less than the recommended maximum fares

We found that Central Coast Ferries and Matilda Cruises currently charge less than the recommended maximum fares. All other operators are charging the maximum fares (Table 3.2).

Table 3.2 Actual fares and maximum fares from 1 January 2017

Ferry operator	Routes	IPART maximum fare from 1 January 2017	Actual fare
Brooklyn Ferry Service	Brooklyn to Dangar Island	\$7.30	\$7.30
Central Coast Ferries	Woy Woy to Empire Bay	\$7.80	\$7.50
Church Point Ferry Service	Scotland Island and western foreshore of Pittwater	\$8.30	\$8.30
Clarence River Ferries	Iluka to Yamba	\$8.30	\$8.30
Cronulla and National Park Ferry Service	Cronulla to Bundeena	\$6.40	\$6.40
Matilda Cruises	Circular Quay to Darling Harbour	\$7.40	\$7.00
	Circular Quay to Lane Cove	\$7.40	\$7.00
Palm Beach Ferries	Palm Beach to Mackerel Beach and the Basin	\$8.10	\$8.10
	Palm Beach to Ettalong and Wagstaffe	\$11.60	\$11.60

Note: The single trip adult fares are current as of 16 May 2017.

Source: IPART, Review of maximum fares for private ferry services in 2017, December 2016, p 2; Ferry operators' websites.

IPART seeks comments on the following

- 1 Do you agree with our assessment of the level of competition on routes covered by private ferry services? If not, why?
- 2 Are there other factors we should consider in assessing competition faced by private ferry services?

3.3 Step 2: Invite ferry operators to propose fares

In May 2017, we invited all ferry operators to propose fares. We received proposals from all operators except for Clarence River Ferries, which are summarised in Chapter 4.

Based on our assessment of competition in Step 1, we made a preliminary decision that for Central Coast Ferries and Matilda Cruises, a light-handed approach to fare regulation is appropriate. Therefore, we invited each of these operators to propose maximum fares with a brief statement of reasons for its proposal. As these operators face a high level of competition, we considered their proposed fares are most likely to be market-driven and therefore efficient, so it is not necessary to review their costs to determine efficient fares.

For the remaining operators, we decided a more rigorous approach is needed as they face little or no competition. We invited them to propose maximum fares and provide their forecast operating and capital costs and forecast patronage to support their proposals. We will analyse the efficient costs of providing their ferry services and determine efficient fares for the next four years using a building block approach (discussed in Section 3.4 below).

Several private ferry operators offer discounted multi-trip tickets. Consistent with our approach in previous reviews, we propose to determine the maximum single adult fare. Therefore, we invited ferry operators to propose fares for a single adult ticket only.

The building block model takes account of both discounted and non-discounted fares, and calculates the efficient fare that allows an operator to earn enough revenue to recover the passengers' share of total efficient costs. If more passengers travel under discounted fares, then (all else equal) the non-discounted fare needs to be higher to ensure the operator recovers its total efficient costs.

Alternatively, we could regulate all fares, including multi-trip tickets, using a weighted-average price cap (WAPC) approach. Under this approach, each operator would be free to adjust its individual prices as long as the weighted average price change remains within the cap.⁴ In effect, the current approach of determining the change in the maximum single adult fare is like recommending the upper end of a WAPC. However, when we have consulted on this approach in our previous reviews, stakeholders have not supported us regulating all fares.

IPART seeks comments on the following

- 3 Do you agree with our preliminary decision to adopt a light-handed approach for Central Coast Ferries and Matilda Cruises, and a more rigorous approach for the remaining five operators? If not, why?
- 4 Do you agree we should determine the maximum fares for an adult single ticket only?

3.4 Step 3: Assess pricing proposals

Our next step will be to assess the pricing proposals. We propose to use an approach for assessing Central Coast Ferries and Matilda Cruises that is different from that for the other ferry operators, in line with our decision to adopt different regulatory approaches.

3.4.1 Proposed approach for assessing Central Coast Ferries and Matilda Cruises proposals

As presented in Chapter 4, we received pricing proposals from Central Coast Ferries and Matilda Cruises.

We propose to assess the pricing proposals submitted by Central Coast Ferries and Matilda Cruises against the matters outlined in Section 2.1 above. Based on this assessment, we will decide whether the proposed fares are reasonable. As discussed in Section 3.1, we do not propose to analyse efficient costs for these ferry operators.

If the proposed fares are reasonable, we propose to accept the operators' pricing proposals and set the maximum fares based on the proposed fares. In setting the four-year price path, we will consider the financial impact on passengers and avoid a sharp increase in fares in

⁴ For example, if we determined a maximum 3% change in fares, ferry operators would be able to change individual fares (including multi-trip tickets) by more or less than 3% as long as the weighted average change does not exceed 3%.

any one year. If the proposed fares are considered to be not reasonable, we propose to index the current maximum fares using the change in Consumer Price Index (CPI).

We propose to calculate the change in the CPI using the All Groups index number for Sydney as published by the Australian Bureau of Statistics for the September quarter each year. The change in the CPI in year t would be calculated as follows:

$$\Delta CPI_t = \left(\frac{CPI_{Sep,t}}{CPI_{Sep,t-1}} \right) - 1$$

The maximum fares for Central Coast Ferries and Matilda Cruises have not increased since 2014. However, we consider important to ensure these operators are able to increase their fares should their costs increase.

3.4.2 Proposed approach for assessing the remaining operators' proposals

We received pricing proposals from Brooklyn Ferry Service, Church Point Ferry Service, Cronulla and National Park Ferry Service, and Palm Beach Ferry Service. These operators also provided forecast operating and capital costs and forecast patronage for the period from 1 January 2018 to 31 December 2021 on a confidential basis. Clarence River Ferries did not submit a pricing proposal.

We propose to assess these proposals against the matters outlined in Section 2.1 above. In addition, we will examine forecast operating and capital costs and forecast patronage provided by these operators.

We have engaged an external consultant, The CIE, to provide advice on the efficient costs of providing private ferry services over the determination period 2018 to 2021. The CIE will review the ferry operators' forecast operating and capital costs, and assess whether they are reasonably efficient. For Clarence River Ferries, which has not provided cost information, The CIE will undertake benchmarking to estimate the efficient costs. It will consult with all ferry operators including Clarence River Ferries. Operators will have an opportunity to provide further information on costs.

We propose to use The CIE's advice on the efficient costs to estimate efficient fares for each operator. For each operator, this will involve three broad steps:

1. Estimating its total efficient costs for each year of the determination period using a building block approach (Appendix B explains this approach).
2. Deciding what share of the total efficient costs passengers should pay through fares. To do this, we will subtract from the total efficient costs:
 - a) An amount equal to the government payments the operator receives for providing school travel and concessions tickets, plus any financial viability payments it receives.
 - b) An amount equal to our estimate of the external benefits generated by the use of private ferry services, where this amount is not accounted for by any existing financial viability payments (Section B.2.2 outlines our proposed approach for estimating external benefits).

3. Calculating the fare for each ferry service that would be required to cover the passengers' share of total efficient costs, based on our forecast estimate of annual patronage (ie, the efficient fare).

We will then compare the efficient fares with the ferry operator's proposed fares. If the proposed fares are **not** materially different from the efficient fares, we propose to accept the pricing proposals and determine maximum fares based on the proposed fares. In setting the four-year price path based on the proposed fares, we will consider the financial impact on passengers and avoid a large increase in fares in one year.

If the proposed fares **are** materially different from the efficient fares, we would provide ferry operators an opportunity to revise their proposed fares. Where we cannot agree to the revised pricing proposals, we propose to apply a decision framework similar to the one we have used in our previous reviews to determine the maximum fares from 2018 to 2021. For example, in our 2016 review:

- ▼ We recommended making **no change** to the 2016 maximum fare if the 2016 maximum fare was **the same as or higher than** the 2017 efficient fare from the building block model.
- ▼ If the 2016 maximum fare was **below** the 2017 efficient fare, we recommended **increasing** the 2016 maximum fare to the lesser of:
 - the 2017 efficient fare from the building block model, or
 - the 2016 maximum fare plus 10 to 30 cents.

In applying this decision framework, we propose to have regard to the financial impacts of our fare determination on both ferry operators and passengers.

We are consulting on whether we should reduce maximum fares or leave them unchanged if they are higher than our estimated efficient fares. In our previous reviews, where the current maximum fare is below the estimated efficient fare, we recommended leaving the maximum fare unchanged, rather than reducing it. This was to manage the impact on private ferry operators' revenue as they retain fare box revenue.

For Clarence River Ferries, which has not submitted a fare proposal, we will use the best available information plus the advice from The CIE to estimate efficient fares. We then propose to apply a decision framework similar to that discussed above to determine the maximum fares from 2018 to 2021.

IPART seeks comments on the following

- 5 Do you agree with our proposed approach to assessing proposed fares or estimating efficient fares?
- 6 Should maximum fares be reduced if they are above efficient fares?

3.5 Step 4: Determine a risk management mechanism for all operators

As our review will determine fares for four years, we propose to include a mechanism to manage the risk of a material deviation between ferry operators' forecast and actual costs over this period. Private ferry services are typically small family-run businesses, and have

limited capacity to hedge against volatility in costs that are outside their control, such as fuel costs. Therefore, we think it is appropriate to put in place a mechanism to manage such risks. Based on our analysis last year, fuel accounts for between 6% and around 16% of the total operating costs of running ferry service depending on the operator.⁵

In our previous reviews, where we set maximum fares based on a ferry cost index, we conducted a mid-year review of fuel costs for private ferries. If fuel costs changed by more than 10% from the average daily diesel price used in adjusting the ferry cost indices at the previous review, we recommended a mid-year fare change in the maximum fares for private ferries.

We consider a similar fare adjustment mechanism is needed to manage the impact of volatility in fuel prices on ferry operators. We propose to use the following formula to adjust fares from the second year of the four-year determination period:

$$\Delta \text{MaxFare}_{t+1,i} = \% \text{ of fuel cost}_{t,i} * \Delta \text{Fuel cost}_t \text{ in excess of } \pm 10\%$$

This would mean that each year, we would measure the annual change in fuel costs from the previous year, based on the average diesel price for the 12 months to October. This average would be based on daily average Sydney retail prices supplied by FUELtrac, excluding GST and excise duty. We would then multiply the annual change in fuel costs that exceeds a threshold of $\pm 10\%$ by the proportion of fuel cost in the total operating cost. This would give us the percentage change to apply to the maximum fare for the following year.

For example, if fuel costs have increased by 20%, and fuel accounts for 20% of a ferry operator's total operating costs, we would increase the operator's maximum fare by 2% (ie, the increase in fuel costs that exceeds the threshold of 10% (ie, 10%) multiplied by 20%).

For Central Coast and Matilda Cruises, for which we will not have efficient cost estimates, we could approximate the proportion of fuel costs based on the average proportion of fuel costs of all other operators.

IPART seeks comments on the following

- 7 Do you agree with our proposed approach for adjusting maximum fares based on the change in fuel costs? Do you agree the threshold of $\pm 10\%$ is reasonable?
- 8 Are there any costs, other than fuel cost, which are outside the control of ferry operators that we should account for in designing risk management mechanisms?

⁵ IPART analysis.

4 Ferry operators' pricing proposals

As discussed in Chapter 3, the second step in our approach is inviting ferry operators to propose fares for the period from 1 January 2018 to 31 December 2021. In this chapter, we provide a summary of ferry operators' pricing proposal and discuss our proposed next step.

4.1 Pricing proposals from ferry operators

In May we invited ferry operators to propose fares for their regulated ferry services, and received pricing proposals from six ferry operators.

Central Coast Ferries and Matilda Cruises proposed that for the next four years their respective maximum fares increase by the change in the CPI. Matilda Cruises notes that fares for Sydney Ferries will increase by 2.4% from 3 July 2017.

Of the five remaining private ferry operators, we received pricing proposals from:

- ▼ Brooklyn Ferry Service
- ▼ Church Point Ferry Service,
- ▼ Cronulla and National Park Ferry Service, and
- ▼ Palm Beach Ferries.

Table 4.1 presents the ferry operators' fare proposals. Brooklyn Ferry Services proposed to increase its current maximum fare by 30 to 40 cents each year until 2020.⁶ Its pricing proposal did not include a proposed fare change for 2021. Cronulla and National Park Service proposed to increase its current maximum fare by 10 cents each year. Church Point Ferry Service proposed to increase its current maximum fare by 30 to 35 cents each year. Palm Beach Ferries proposed to increase its current maximum fares by 50 cents from January 2018 then a 30 cents increase in each of the remaining years. These operators also provided confidential forecast operating and capital costs and forecast patronage to support their pricing proposals.

⁶ Brooklyn Ferry Service did not provide a fare proposal for 2021.

Table 4.1 Ferry operators' proposed maximum fares from January 2018 to December 2021 (\$nominal, including GST)

	Current maximum fare	2018	2019	2020	2021
Brooklyn Ferry Service	\$7.30	\$7.60	\$8.00	\$8.40	Not provided ^a
Central Coast Ferries	\$7.80	ΔCPI	ΔCPI	ΔCPI	ΔCPI
Church Point Ferry Service	\$8.30	\$8.65	\$9.00	\$9.40	\$9.70
Clarence River Ferries	\$8.30	Did not propose fares			
Cronulla and National Park Service	\$6.40	\$6.50	\$6.60	\$6.70	\$6.80
Matilda Cruises – Circular Quay to Darling Harbour	\$7.40	ΔCPI	ΔCPI	ΔCPI	ΔCPI
Matilda Cruises – Circular Quay to Lane Cove	\$7.40	ΔCPI	ΔCPI	ΔCPI	ΔCPI
Palm Beach Ferries – Palm Beach to the Basin	\$8.10	\$8.60	\$8.90	\$9.20	\$9.50
Palm Beach Ferries – Palm Beach to Ettalong and Wagstaffe	\$11.60	\$12.10	\$12.40	\$12.70	\$12.90

^a Brooklyn Ferry Service did not provide a fare proposal for 2021.

Source: Ferry operators' pricing proposals.

IPART seeks comments on the following

- 9 For Central Coast Ferries and Matilda Cruises, do you agree with their proposals to increase maximum fares each year by the change in the CPI?
- 10 Do you agree with the proposed maximum fares from Brooklyn Ferry Service, Church Point Ferry Service, Cronulla and National Park Ferry Service and Palm Beach Ferries? If not why?
- 11 As Clarence River did not propose fares, do you agree that we should estimate efficient fares and then use our decision framework (see Section 3.4.2) to determine the maximum fares?

4.2 Our proposed next step

We will assess the ferry operators' pricing proposals based on the approach discussed in Section 3.4. We will consider stakeholders' submission to this Issue Paper and our further analysis of the matters we are required to consider under our referral before making our draft fare determination in September. All stakeholders including ferry operators will have a further opportunity to provide comment on our draft decision.



Appendices



A Referral for the review



Passenger Transport Act 2014 Section 123(1) (a)

Referral

I, the Hon Andrew Constance MP, Minister for Transport and Infrastructure, with the approval of the Hon Gladys Berejiklian MP, Premier of New South Wales and the Minister administering the *Independent Pricing and Regulatory Tribunal Act 1992*, under section 123(1) (a) of the *Passenger Transport Act 2014*, refer to the Independent Pricing and Regulatory Tribunal (IPART) the following matter for determination:

Appropriate maximum fares for private ferry services for the four-year period starting 1 January 2018.

In addition to the matters contained in section 124 of the *Passenger Transport Act 2014*, the following specified matters are referred to IPART under section 123(2) (b) of the *Passenger Transport Act 2014* for consideration in undertaking this investigation:


- The pricing of competing modes for private ferry services, including the pricing of Sydney Ferries' fares.

IPART is to publish a draft report and determination as soon as practicable but no later than 15 September 2017.

IPART is to submit its final report and determination under this referral to the Minister for Transport and Infrastructure as soon as practicable but no later than 15 December 2017, or such later date as notified in writing by the Minister.

Signed: 
**The Hon Andrew Constance MP
Minister for Transport and Infrastructure**

Date: 21/4/17

Signed: 
**The Hon Gladys Berejiklian MP
NSW Premier**

Date: 14/5/2017

B IPART building block approach

As discussed in Chapter 3, we propose to estimate the total efficient costs of ferry services (except those provided by Matilda Cruises and Central Coast Ferries) by using a building block approach in each year of the four years period commencing 2018.

B.1 How we estimate the total efficient costs for contracted ferry services

The building block approach is commonly used by IPART and other regulators to estimate the total revenue a business needs to generate to recover the efficient costs of providing the regulated services to the required standard over the price determination period.

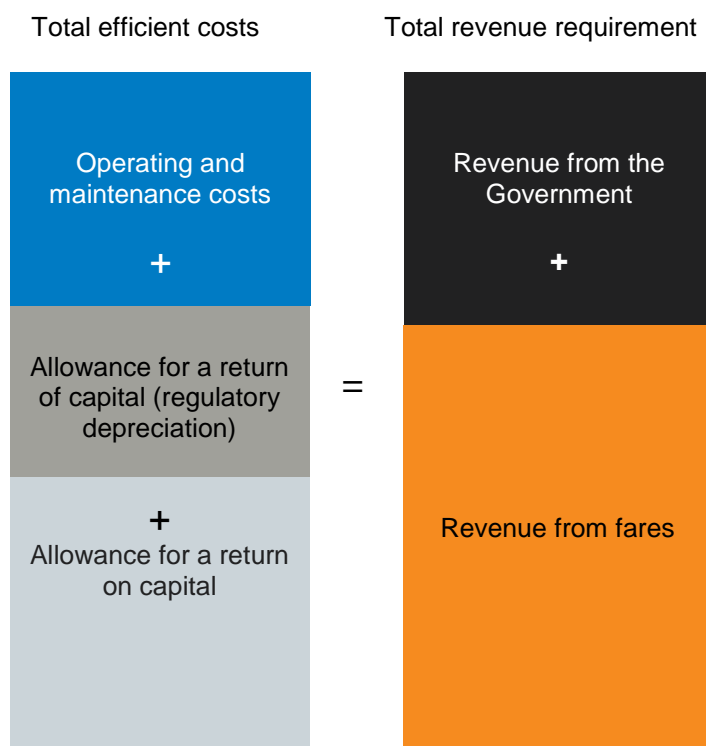
The building block approach typically includes the following components:

- ▼ an efficient level of operating expenditure (operating, maintenance and administration expenses)
- ▼ an allowance for a return on assets that ferry operators used to provide the contracted services
- ▼ an allowance for a return of those assets (depreciation), and
- ▼ an allowance for tax and working capital.

We have engaged The CIE to provide advice on the efficient costs of providing private ferry services over the period 2018 to 2021. Under the private ferry service contracts, operators receive payments for providing school travel and concession tickets and some receive viability payments. In our previous review, we subtracted these payments from the total efficient costs in determining the maximum fare for the individual ferry services. For this review, we propose to follow the same approach which is discussed in more detail below.

Figure B.1 summarises our building block approach.

Figure B.1 Revenue requirement under the building block approach



Note: Our building block model also includes allowances for regulatory taxation and working capital. These are not shown in the figure because they represent a small proportion of the total revenue requirements for private ferries. The figure is not to scale.

B.1.1 Efficient operating expenditure

As in previous reviews, we propose that efficient operating expenditures include labour costs, fuel, insurance, repairs and maintenance, berthing and mooring fees and ‘other costs’ including but not limiting to cash collection costs, office rent, communication costs, financial services, external consultants and advertising.

To assist us in estimating these costs, we have engaged an external consultant, The CIE, to review the total efficient operating and capital costs each operator would need to incur to provide the contracted level of services for the next four years.

B.1.2 Efficient capital expenditure

As in previous reviews, we propose to assess the efficient capital expenditure for this review. Vessels represent the largest proportion of capital expenditure incurred by private ferry operators. As in previous reviews we will also include allowances for ferry refurbishment and engine replacement.

In the 2014 review, we decided that an initial Regulatory Asset Base (RAB) should consist of the depreciated replacement cost of a main ferry or ferries and 50% of the depreciated replacement cost of a spare ferry. We included 50% of the value of the spare ferry as this can be used to earn other income, for example charter cruises. We propose to continue with the same approach for the 2017 review.

B.1.3 Rolling forward the regulatory asset base at end of 2017

In our review in 2014 we included capital expenditure to replace very old ferries for some operators. Although they were not planning any ferry replacement we considered that it was prudent to do so as the old ferries were utilised far beyond their conventional useful economic lives. As a result, the efficient prices that we recommended for 2015 to 2017 provided for operators to replace old ferries although some did not incur these costs.

For this review, we consider reasonable to roll forward the asset base of the contracted ferry services at the close of 2017 to the new price setting period commencing 1 January 2018.

B.1.4 Allowance for a return on assets

The allowance represents the opportunity cost of assets that ferry operators invest in to provide the contracted ferry services (such as ferry, wharf infrastructure, office accommodation and equipment).

To calculate this allowance, we will 'roll forward' the value of the asset base each year and take into account any new capital expenditure incurred by ferry operators over the determination period and multiply the value of the asset base in each year by the rate of return as discussed in Appendix C.

B.1.5 Allowance for a return of assets (depreciation)

This allowance recognises that through the provision of the services, the ferries and other assets will wear out over time, and therefore operators need to recover the cost of the assets over their lives. To calculate this allowance, we will continue to use the standard economic asset lives of 25 years for 'slow'⁷ ferries and 15 years for 'fast' ferries and the depreciation method we used in previous reviews.

B.1.6 Working capital and regulatory taxation

We also include in the total efficient costs allowances for regulatory taxation and working capital which represent a small proportion of the total efficient costs.

B.2 Determining passengers' share of total efficient costs

Once we determine the total efficient costs using a building block model, one of the decisions we need to make is how much of the total efficient costs should be paid by the passengers through fares. We will then calculate the efficient fare for each private ferry service that would be required to cover the passengers' share of total efficient costs based on our forecast estimate of annual patronage taking into account patronage under different types of tickets (eg, adult, child and concession tickets) based on information from ferry operators, where available, and TfNSW.

⁷ 'Slow' ferry refers to ferries operating at an average speed of less than 10 knots and 'fast' ferry refers to ferries operating at an average speed of 18 to 20 knots.

B.2.1 Government payments for school travel and concession tickets and viability payments

Under the private ferry contracts, operators receive government payments for providing school travel and concessions tickets. In addition, some operators receive financial viability payments. As in previous reviews, we will subtract the amount of these Government payments from the total efficient costs to be recovered from fares, which are estimated using the building block approach.

B.2.2 External benefits

When a person chooses to use a public transport service there are costs and benefits to that person, and to the wider community (including other users of public transport). In the context of this review, people can choose between public and private transport (eg, private ferry and private cars or boats). If private ferry services benefit the whole community, not only the people who use them, a portion of the total efficient costs should be paid by the NSW community as a whole through the Government subsidy. Some operators are already receiving a form of subsidy through financial viability payments as discussed above.

Our approach to estimating external benefits of private ferries firstly involves identifying ferry services where there are likely to be external benefits, the main external benefit being avoided road congestion. Our estimate also includes avoided air pollution and greenhouse gas pollution, avoided road accidents and the health benefits associated with walking or cycling to or from public transport and the external cost – the costs of raising funds to subsidise public transport (see Box B.1).

In past reviews we did not estimate external benefits for Brooklyn Ferry Service, Church Point Ferry Service and Clarence River ferry service. These ferries provide a service to islands and/or are located in areas where there are unlikely to be external benefits associated with avoided road congestion. There may be some external benefits (mainly avoided road congestion) associated with the Palm Beach (Ettalong), Cronulla and Central Coast Ferry services.

In our 2016 review, we found that our estimate of external benefits associated with using these private ferry services is less than the financial viability payments received by Central Coast, Cronulla and Palm Beach Ettalong ferry services. Therefore, we did not consider there were any external benefits, in addition to the current viability payment, that need to be accounted for in our building block model.

We propose to adopt the approach we used in our review last year to quantify the value of external benefits and determine any external benefits that need to be accounted for in our building block model. Consistent with our review last year, we will identify ferry services where there are likely to be external benefits, and estimate the value of annual external benefits based on our estimate of the net external benefit for Sydney Ferries. In particular, we will estimate the value of external benefits by:

- ▼ estimating the amount of patronage in the peak period as the proportion of daily commuter services to total daily services multiplied by total annual patronage, and

- ▼ multiplying those journeys taken during the peak period by the estimate of net external benefits of \$0.94 per passenger journey for Sydney Ferries. We used the same estimate in our last review.⁸

We will then compare our estimate of the external benefits associated with private ferry use to the government subsidy that the operators receive.

Box B.1 External costs and benefits of transport

All motorised forms of transport impose external costs, including private transport (car, motorbike, truck) and public transport (train, bus, ferry, light rail). These costs include pollution (air pollution, greenhouse gases and noise), some accident costs, and costs associated with traffic congestion. They are borne by society through poorer health, higher mortality, medical costs, emergency services costs, and lower productivity.

But the size of these costs differs by form of transport and the context in which it is used. When people use public transport where it has lower external costs than the alternative transport options, some external costs are 'saved'. These saved costs are known as the 'external benefits' of public transport.

Source: IPART, *Finding the best fare structure for Opal – Issues Paper*, July 2015, p 14.

B.3 Forecasting patronage

Patronage forecasts are key input into the building block model. All else equal, higher forecast patronage leads to lower fare increases, because passengers' share of total efficient costs will be recovered from a higher number of passengers.

In the 2014 review we estimated forecast patronage based on an average of the previous three years' patronage levels. We then updated our forecast patronage each year based on new patronage information provided by operators and TfNSW.

As discussed in Chapter 3, we invited all private ferry operators except for Central Coast Ferries and Matilda Cruises to provide their forecast patronage to support their pricing proposals. We will review this information and consider whether the average patronage over the most recent three years (where available) remains a reasonable guide to future patronage.

⁸ IPART, *Review of maximum fares for private ferry services in 2017*, p 32.

C Weighted Average Cost of Capital (WACC)

As discussed in Appendix B, our proposed approach to estimating an efficient return on assets used by ferry operators to provide the contracted services, involves the estimation of an appropriate rate of return. Currently, IPART uses a post-tax Weighted Average Cost of Capital (WACC) to determine a rate of return.⁹ The WACC is the expected cost of debt and equity weighted by the proportions that we consider as efficient from our analysis of listed firms providing ferry services.

Consistent with the IPART approach, we will determine the WACC for a typical ferry operator by estimating the values for the following WACC elements:

- ▼ Cost of debt
- ▼ Cost of equity and gearing.

The sections below provide an overview of IPART's WACC methodology¹⁰ and discuss how we propose to determine the market and industry-specific parameters that underpin the WACC calculations.

C.1 IPART's WACC methodology

To determine the WACC, our current methodology is to:

1. establish a WACC range and midpoint by
 - a) estimating a feasible range based on long-term averages (ie, 10-year average) and a feasible range based on current market data (ie, 40-day average)
 - b) using the midpoints of these two feasible ranges as the upper and lower bounds of the WACC range.
2. choose a WACC point estimate from within the final WACC range based on our WACC decision rule. Our default position is to select the midpoint. However, we consider whether it is appropriate to choose a point other than the midpoint having regard to the level of economic uncertainty.¹¹

We use our uncertainty index¹² as a measure of economic uncertainty, and select the midpoint if the uncertainty index is within or at one standard deviation from the long-term average of zero. If the uncertainty index is more than one standard deviation from the long-term average of zero, we consider selecting a point other than the midpoint within our final WACC range.

⁹ IPART, *Review of WACC Methodology – Final Report*, December 2013.

¹⁰ IPART, *Review of WACC Methodology – Final Report*, December 2013.

¹¹ IPART, *IPART to review WACC methodology in 2017-18*, 25 November 2016. We established the current WACC methodology in 2013. While we are currently reviewing our WACC methodology, the new methodology will apply to IPART's reviews which determine or recommend prices from 1 July 2018. Therefore, the new WACC methodology will not apply to this review.

¹² http://www.ipart.nsw.gov.au/Home/Industries/Research/Reviews/WACC/Uncertainty_Index_Model.

We established this framework as part of our review of WACC methodology in 2013, and have commonly applied across all industries we regulate. While we are currently reviewing our WACC methodology, the new methodology will apply to IPART's reviews which determine or recommend prices from 1 July 2018. Therefore, the new WACC methodology will not apply to this review.

C.2 Estimating WACC parameters

The parameters that are used to estimate WACC consist of two groups:

- ▼ **Market-based parameters**, which include the risk-free rate, debt margin, equity market risk premium (MRP) and expected inflation. These parameters are applicable to the market as a whole and therefore common to all businesses and industries.
- ▼ **Industry-specific parameters**, which include the equity beta and gearing ratio. These parameters are specific to the business' particular industry and must be considered in the light of the specific nature and risks of the industry being assessed.

C.2.1 Estimating the market-based parameters

Risk-free rate

The risk-free rate is the rate of return attributed to an investment with zero or near-zero risk, typically derived from using a proxy with very low risk such as 10-year Commonwealth Government Securities (CGS). In line with our current WACC methodology, we will estimate the risk-free rate as:

- ▼ The 40-day average of the 10-year CGS yields published by Bloomberg. This will be used to estimate the cost of debt and cost of equity using current market data.
- ▼ The 10-year average of the 10-year CGS yields published by Bloomberg. This will be used to estimate the cost of debt and cost of equity using long-term averages.

Debt margin

The debt margin represents the additional cost a business has to pay above the nominal risk-free rate. Following our current WACC methodology, we will estimate the debt margin as:

- ▼ The two-month average¹³ of the RBA's monthly estimates of the credit spreads for 10-year corporate bonds rated as BBB. This is used to estimate the current cost of debt.
- ▼ The 10-year average of the RBA's monthly estimates of the credit spreads for 10-year corporate bonds rated as BBB. This is used to estimate the long term cost of debt.
- ▼ We include an allowance of 12.5 basis points in the debt margin for debt-raising cost.

¹³ This is as an approximation for the 40-day average.

Market risk premium

The equity market risk premium (MRP) is the compensation over the risk-free rate that investors would require for investing in a market portfolio. The MRP is not directly observable from current market data. Therefore, it needs to be estimated from historical data. In line with our current WACC methodology, we will estimate the current and long term cost of equity as follows:

- ▼ an MRP range derived from using our six MRP methodologies to estimate the current cost of equity, and
- ▼ an MRP range of 5.5% to 6.5% with a midpoint of 6.0%, based on the historical arithmetic average of the excess market return over the risk-free rate, to estimate the long term cost of equity.

Inflation rate

The inflation rate is used to convert the nominal post-tax WACC into a real post-tax WACC. We will estimate the expected inflation by using a 10-year geometric average of the 1-year RBA inflation forecast and the middle of the RBA's target band of inflation (currently at 2.5%) for the remaining nine years.

C.2.2 Estimating the industry-specific parameters

Equity beta

The equity beta is the beta of a firm with financial leverage. It measures the extent to which the return of a particular firm varies in line with the overall return of the market. The equity beta without the financial leverage represents the systematic risk of a security that cannot be avoided by holding it as part of a diversified portfolio. The equity beta does not take into account business-specific or diversifiable risks.

In each price review we conduct, we determine the value of the equity beta for the relevant regulated business. Subject to data availability, we will estimate the equity betas of firms providing ferry services that are listed on stock exchanges. We will also take into account the relative risks involved in providing private ferry services compared to other modes of public transport such as buses, trains and light rail.

Gearing ratio

The gearing ratio is the proportion of debt capital to total assets employed in a business. Regulators commonly adopt a benchmark capital structure rather than the actual capital structure of the regulated entity, to ensure that customers will not bear the costs associated with an inefficient capital structure.

Similar to our proposed approach for determining the equity beta, we will determine the gearing ratio for private ferry operators by estimating the gearing levels of listed firms providing similar services.